

ONLINE PERSONAL TUTORING SYSTEM

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UNIVERSITI MALAYSIA PAHANG

ONLINE PERSONAL TUTORING SYSTEM (OPTS)

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**UNIVERSITI MALAYSIA PAHANG**

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## **EXECUTIVE SUMMARY**

Nowadays, most of the primary schools in Malaysia are still using courseware such as CD during teaching as a learning material. Students also depend on web based learning programme to study the subject that required them to pay. However, not everybody able to pay for the online educational programme such as Score A programme. Besides that, teachers are not participating in the web based learning application as they not play role to update notes and assessment every time. With the growing of technologies, the situation should be changed. The Online Personal Tutoring System (OPTS) can provide the solution for the above situation. The objective of OPTS is to provide medium for teacher to share learning and teaching material towards providing platform for the for year 4 science students to the current KSSR (KURIKULUM STANDARD SEKOLAH RENDAH) which is based on band system. The OPTS is mainly for science subject at primary school which contain one topic. There are three targeted users in this system which is a single administrator, teacher and student. They are carried out different kind of roles as stated in user requirement. Waterfall model has been chosen as the method to develop this system which is planning, requirement analysis, implementation and testing. This methodology is chosen because it attempts to reduce inherent project risk by breaking a project into smaller segments, provides easy to change during the development process and it is suitable used on developing OPTS. The OPTS is expected to become an educational tutoring aid for pupils and teachers. Moreover, only teacher can participate in OPTS as the teaching material provider.

## **RINGKASAN EKSEKUTIF**

Kini, kebanyakan sekolah rendah di Malaysia masih menggunakan perisian seperti CD sebagai bahan pembelajaran semasa pengajaran. Pelajar juga bergantung kepada program berasaskan web pembelajaran untuk belajar semua subjek yang memerlukan mereka untuk membayar. Walau bagaimanapun, tidak semua orang mampu untuk membayar untuk program online pendidikan seperti program Skor A. Selain itu, guru-guru tidak mengambil bahagian dalam aplikasi berasaskan web pembelajaran kerana mereka tidak memainkan peranan untuk mengemaskini nota dan penilaian setiap masa. Dengan teknologi yang semakin meningkat, keadaan seumpama ini boleh diubah. Online Sistem Tutor Peribadi (OPTS) boleh memberikan penyelesaian bagi situasi di atas. Objektif OPTS adalah untuk menyediakan satu medium untuk guru untuk berkongsi pembelajaran dan bahan-bahan pengajaran selaras menyediakan platform bagi tahun 4 pelajar sains berasaskan system KSSR (STANDARD Kurikulum Sekolah Rendah) yang berdasarkan sistem band. OPTS juga berfokuskan terutamanya mata pelajaran sains di sekolah rendah yang mengandungi satu topik. Terdapat tiga pengguna yang disasarkan dalam sistem ini yang merupakan pentadbir tunggal, guru dan pelajar. Mereka menjalankan pelbagai jenis peranan seperti yang dinyatakan dalam kehendak pengguna. Model air terjun telah dipilih sebagai kaedah untuk membangunkan sistem ini yang merancang, analisis keperluan, pelaksanaan dan ujian. Kaedah ini dipilih kerana ia cuba untuk mengurangkan risiko projek yang sedia ada dengan memecahkan projek ke dalam segmen yang lebih kecil, menyediakan mudah untuk berubah semasa proses pembangunan dan ia sesuai digunakan untuk membangunkan OPTS. OPTS dijangka menjadi bantuan tunjuk ajar



pendidikan untuk murid-murid . Selain itu, guru hanya boleh mengambil bahagian dalam memilih sebagai pembekal bahan pengajaran.

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## **1.0 INTRODUCTION**

### **1.1 Problem Statement**

Nowadays, online personal tutoring system (OPTS) becoming an important teaching and learning material among teachers and students. Usage of courseware such as CDs as a teaching materials are not enough for primary school students to understand certain topics. Students are not exposed fully to the questions on all the subtopic. Students find it difficult to understand the topic and failed to answer the exam questions. Sometimes, students are not getting feedback regarding their mistakes from students unless students go and see their teachers personally. Students take long time to finish the assessment if the teachers give homework for them. There is no proper time limit for the students to finish their assessment. Besides that, students are not much exposed to different kind of questions when they learn in classrooms. Students should use open-ended questions in teaching material to encourage to avoid yes or no answers and to be creative on answering subjective questions. In some online education web application, teacher will not play role to track the performance of their students. Therefore, students also will skip to read will just try the assessment without study the subtopics. This because the application not provided features where teachers can track student's performance by using band system. This way of learning techniques not exposed to the students which make students to attempt the questions without any revision. This situation will make students to not understand the topic very well.

## 1.2 Purpose

Online Personal Tutoring System (OPTS) is an online shared teaching and learning resources for primary school students. This system is a web based application that will be developed focusing only on life process topic in science subject. OPTS will only limited to the topic on life process chapter. Assessment and teacher's feedback also included in OPTS. The teacher feedback will be based on band system which is regarding current educational KSSR (Kurikulum Standard Sekolah Rendah) system. The band system is embedded in OPTS because it will easy for teacher to track student's performance. When their result in the system it is very easy for teacher to the records of the students understand level. Management of notes and questions will be done by teacher where they will update every time if they want to add any additional studying materials. Students can access to OPTS to 24 hours in a day where there is no restriction to time. Thus, it will be able to develop student's time self-management and independent learning.

## 1.3 Objective

- i. To provide medium for sharing teaching material for primary school year 4 science students
- ii. To provide platform for year 4 science students to the current KSSR(KURIKULUM STANDARD SEKOLAH RENDAH) which is based on band system
- iii. To manage notes and questions module for primary school science year 4 students for life process topic



#### **1.4 Review of Existing System**

Courseware such as CD Existing system for teaching primary school students is discussed here to help in giving ideas during the development of the system. The ideas can be used to create an enhanced system. Advantages and disadvantages of the existing system will be studied to ensure that the new system that developed for primary school students. Now, the applications that we are going to discuss are:

- i. Courseware such as CD as a teaching and learning material
- ii. Webpage education application such as Score A Programme
- iii. Intelligent Tutoring System such as ActiveMath

#### **1.4.1 Courseware such as a Teaching and Learning Material**

Normally teachers are more familiar to use courseware like CD to teach the students. Courseware is defined as instructional or educational software and is widely used by school students at primary level and can be used as an integral part in the delivery of their courses. Courseware or multimedia integration into instruction and learning becoming a very effective tool for learning and teaching. (Arif , R, M.et al.,2012) In general, courseware can play the role of a teacher and serves as an interesting tool for students to interact during their learning process. Teachers are more prefer to access to hardware or software to teach students. (Brooks, H. B.et al, 1996). The text of the certain topic was highlighted with different colours and arranged in a pattern that could be easily identified by the students. A survey shows that highlighting text will enable students to understand the topic very well as it shows important points clearly.(Doughty,1991). Teachers also can play a more active role in computer based in classrooms. Students can learn effectively and interestingly by using courseware to study science subject with the guidance from a skilled teacher. Multimedia features such as pictures, video, animations and buttons were included in the courseware to help students to get better understand complex concept in grammar. The usage of interactive multimedia compromise with different kinds of technique such as listening, reciting, and comprehension and authentic learning experiments.(Chen, G.,2008) But nowadays the situation change where teaching involving CDs was not widely practised. At the same time, CDs will create technical problems such as DVDs may be scratched or not compatible with your player.



**Figure 1-1: Screenshot software for science Form 3**

This courseware was built for the consumption of the Ministry of Education under the PPSM1 project. This Form 3 Science courseware was built to assist teachers to teach the subject in English. The first version of the Flex framework is used in developing this courseware.

### 1.4.2 Webpage Education Application such as Score A Programme

Nowadays, using webpage education application to teach students become important medium to deliver teaching and learning material. Student can access to this application 24 hours a day and at anywhere. Score A programme is a application where it can introduce the students to the world of IT. Score A Programme has many features which make students feel convenient to use this system. This system consists of 100% according to the syllabus of the Malaysian Ministry of Education. Score A programme complete with up-to-date syllabus, e-topic, e-assessment, e-notes, e-dictionary, instant marking, e-report card and e-past year exam. Assessment also will be carried is based on countdown timer. Students also can choose the assessment based on their level such as easy, medium and expert. But, students need to pay a lot to access to this Score A programme. Each person need to spend RM596.00 to use this system. Therefore some people are unable to buy this system.

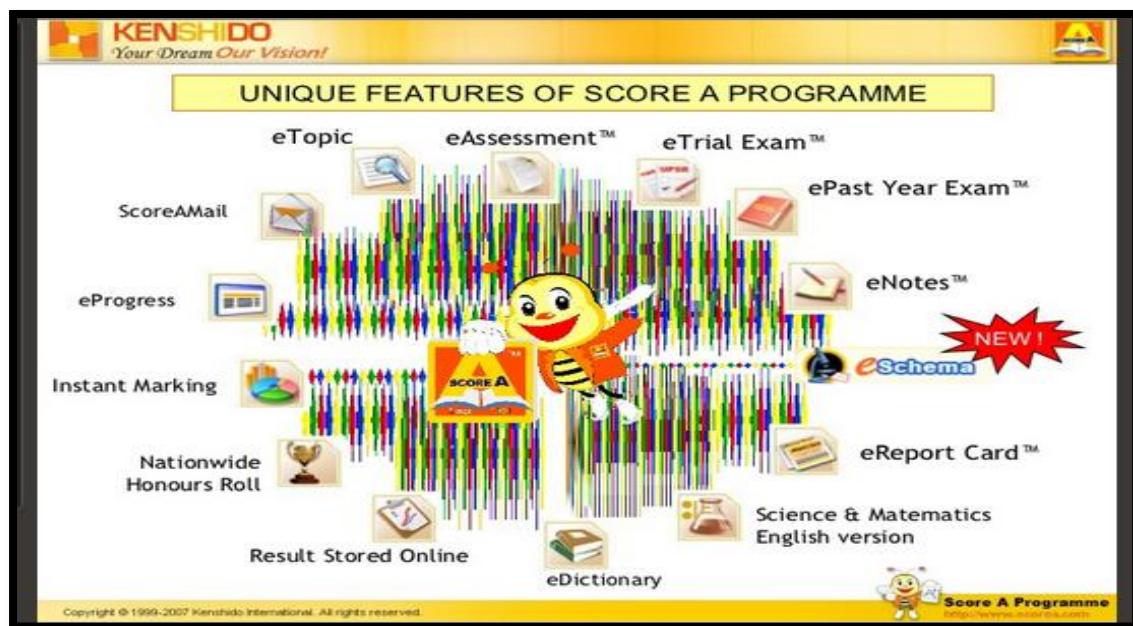


Figure 1-2: Screenshot of Score A Programme

### 1.4.3 Intelligent Tutoring System such as ActiveMath

Intelligent Tutoring System is the application of AI (Artificial Intelligence) for our education. Last time the development computers influenced the architectures of the ‘intelligent tutoring’ systems. But nowadays it change to sophisticated software systems with this attribute. ITS can be defined as a computer software systems that look for to mimic the methods and dialog of natural human tutors to generate instructional interactions in real time as required by individual students. ITS software tracks student’s performance, feedback and hints from the students. The software can make inferences about strengths and weaknesses, and can suggest additional work by collecting information of student's performance. For a example, ActiveMath is a web-based adaptive learning environment for mathematics which use of artificial intelligence technique in the system. (Melis, E.,et al. ,2011). This system aims for improving long-distance learning, for complementing traditional classroom teaching and for supporting individual and life-long learning. Based on research for ActiveMath has used and developed system by using problem solving, rule-based system, knowledge representation, user modelling, adaptive systems and adaptive hyper media and diagnosis. The pedagogical knowledge is stored in a pedagogical rule base, the educational content is stored in MBase, and the knowledge about the user is stored in the student model in Activemath.

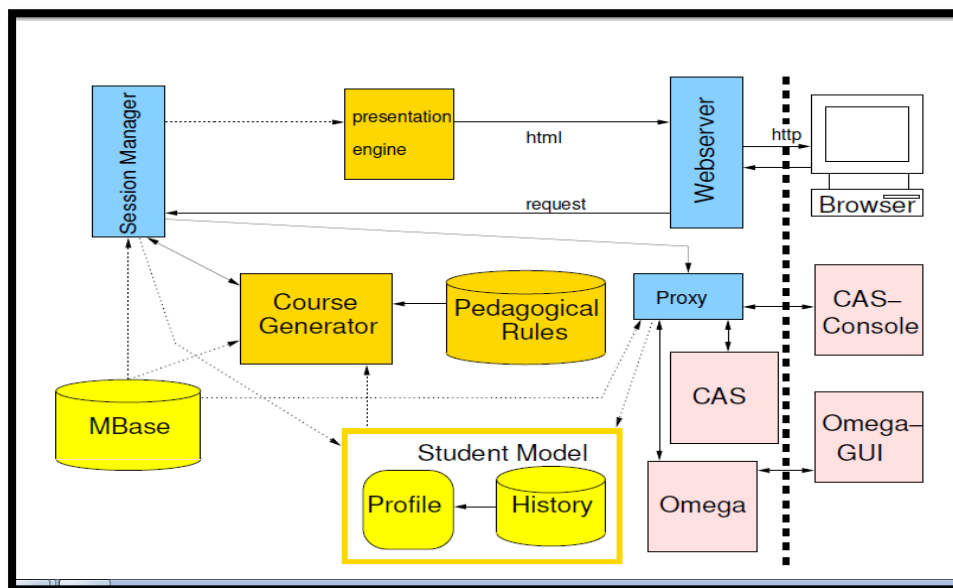


Figure 1-3: Architecture of ITS ActiveMath

### 1.5 Relationship of Current Project

**Table 1-1: Comparison With Current System**

<b>Features</b>	<b>Courseware as a teaching material</b>	<b>Score A Programme</b>	<b>Intelligent Tutoring System of ActiveMath</b>	<b>Online Personal Tutoring System(OPTS)</b>
<b>Updates of Notes</b>	No	Yes	Yes	Yes
<b>Availability of assignment</b>	Yes	Yes	Yes	Yes
<b>Involving of intelligent technique</b>	No	No	Yes	No
<b>Instant marking</b>	Yes	Yes	Yes	Yes
<b>Marking assessment by respective teachers</b>	No	No	No	Yes
<b>Performance tracking using band system</b>	No	No	No	Yes

## 1.6 Current System and its Limitation

The system that will be developed is Online Personal Tutoring System (OPTS). This system consists few convenient features that differ from other application. This application based on online web based application. This idea is developed when a survey show that over 70% of students indicated that they benefit from using technologies in their studies. They prefer to use ICT based educational material for the learning purposes. Usage of technologies in their learning experiences includes usage of courseware by their teachers in the classrooms. This situation enable student to prefer to use technology based medium for their educational purposes. Therefore, using of online based studying material will help student understand the topic in future. (Samuelis, L., 2007) . In order to preserve the teacher-students engagement, OPTS will allow subjective questions. The subjective question will require teacher to access and give some feedback based on band system. Nowadays in primary school, the band system is being used by teacher to evaluate student's performance. This will enable teacher to be convenient to track performance of their students in OPTS and students also will try to attempt the questions once study the topic. In addition, there are respective teacher only can play the role to upload notes and assessment of the science subject. There will be message alert and triggering for teacher only for the unmark assessment. Expected limitation for OPTS to be operational are such as size of server space required for free web hosting, task and responsibilities by single administrator. The quality of the teaching material and teaching materials are not be reviewed by anyone.

## 1.7 Indications of Scope and Limitations of Study

- i. Single administrator is needed for OPTS because only single administrator is considered to maintain the system for science subject.
- ii. There will be no intelligent approval to become a student or teacher for the module.
- iii. Types of additional learning materials that can be uploaded are limited which students need to download before read.

## **1.8 Terminology**

- i. OPTS – Online Personal Tutoring System
- ii. SDLC – System Development Life Cycle
- iii. AI – Artificial Intelligence
- iv. ITS – Intelligent Tutoring System
- v. IT – Internet Teaching

## **1.9 Report Outline**

This technical report consists of three (3) parts. Part 1 will discuss the introduction to system. Part 2 will review about report body and Part 3 will be the conclusion of this report.



## 2.0 REPORT BODY

### 2.1 User Requirement

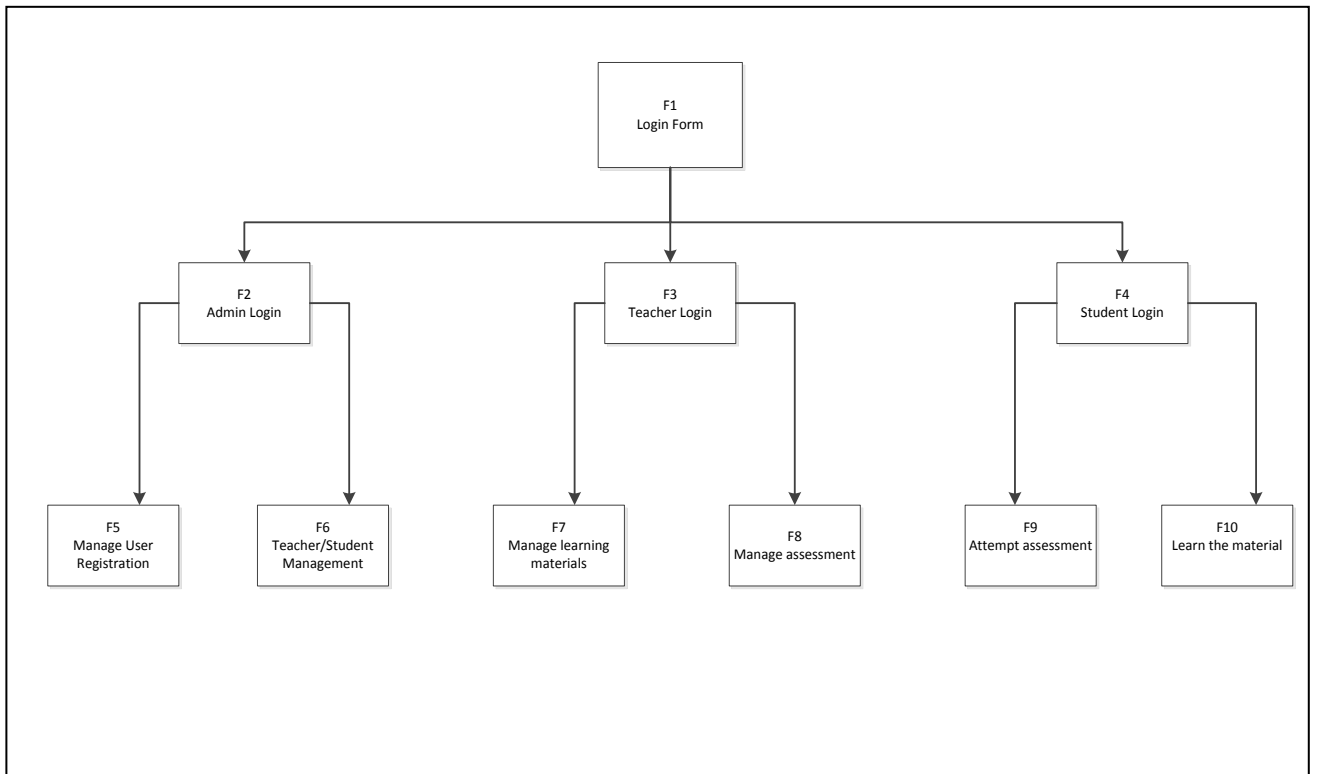
OPTS will be developed based on the user requirements. 15 user requirements considered as a feature which should included in OPTS. The stakeholder of OPTS is 2 science teacher and 10 students from Sekolah Kebangsaan Setapak Indah. The user requirement are listed as below in Table 2.1.

**Table 2-1: List of User Requirement**

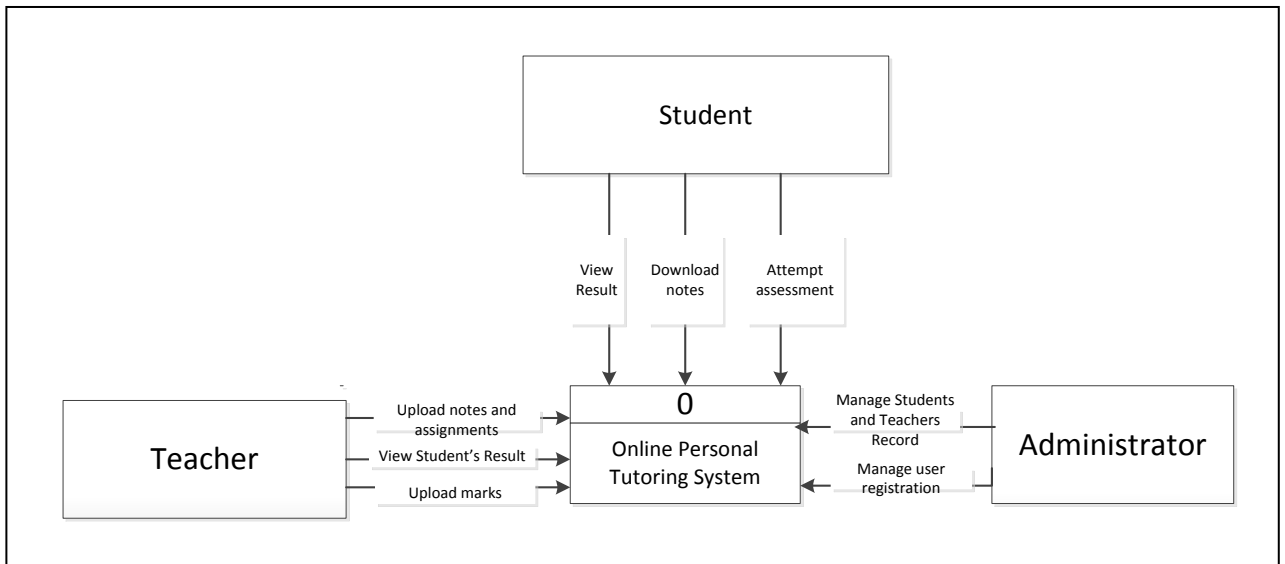
No	Description
R1	Administration of student and teachers by system admin where admin can insert, edit and delete the administration of system user.
R2	Administration registration should consists of full name, my kad, address 1, address 2, postcode, state, phone number, email address and user name.
R3	Teachers registration should consists of full name, user name, my kad, gender, experience, address 1, address 2, postcode, state, phone number, email address.
R4	Students registration should consist of full name, username my kid number, gender, address 1, address 2, postcode, state, phone, email address.
R5	Administrator can view the details of the teacher and students by enter their user id. The details of each user will display.
R6	Band system application is provided in OPTS. This application will allow teacher to insert the band for the students after mark the subjective questions.

R7	Band system enable student to attempt the questions after read the notes.
R8	The system can upload learning additional item by teachers.
R9	The system also must provide with different types of questions done by teacher. There are multiple choice question and subjective question.
R10	Teacher can mark the subjective questions for the students.
R11	Students will get the feedback from teacher for specify subjective question in the band form which are from band 1 to band 6.
R12	The system provided message alert for teacher for the unmarked assessment.
R13	Assessment by student is consists several elements such as view question, attempt question.
R14	Result can be viewed by the student.
R15	Students learn the module by view the picture of the process of any topic.

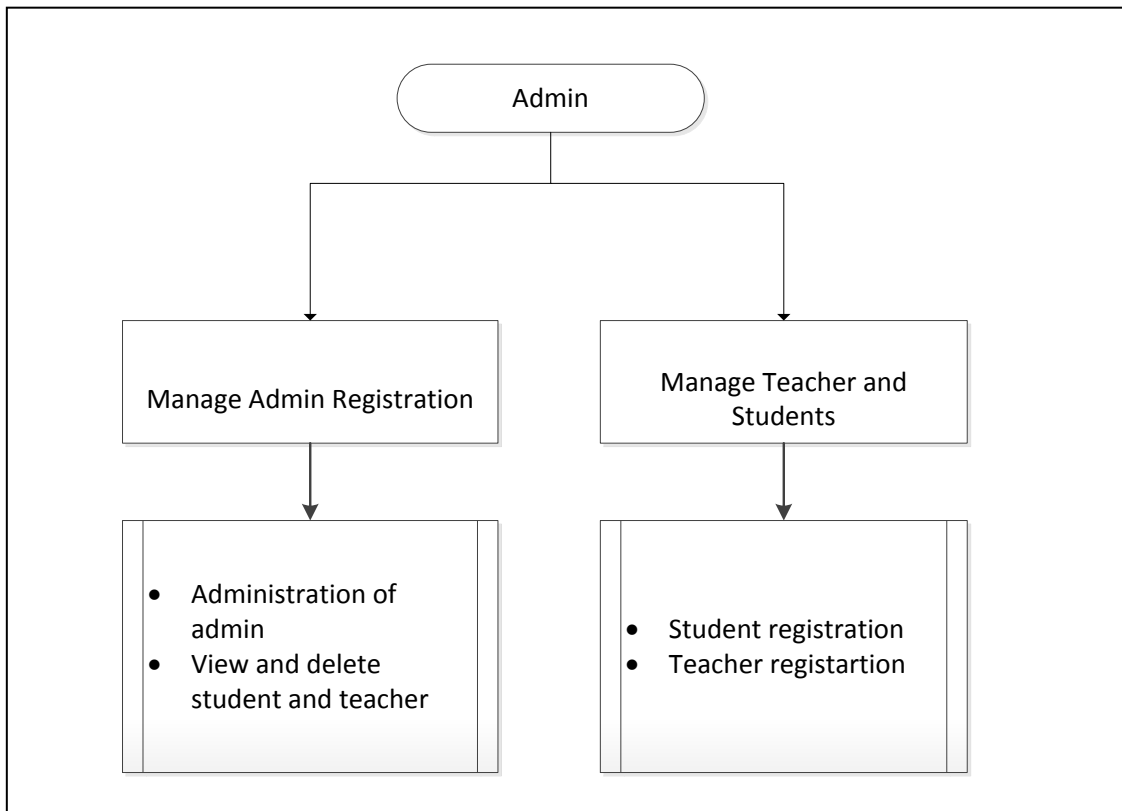
## 2.2 Flow Chart/Context Diagram/DFD Level 1



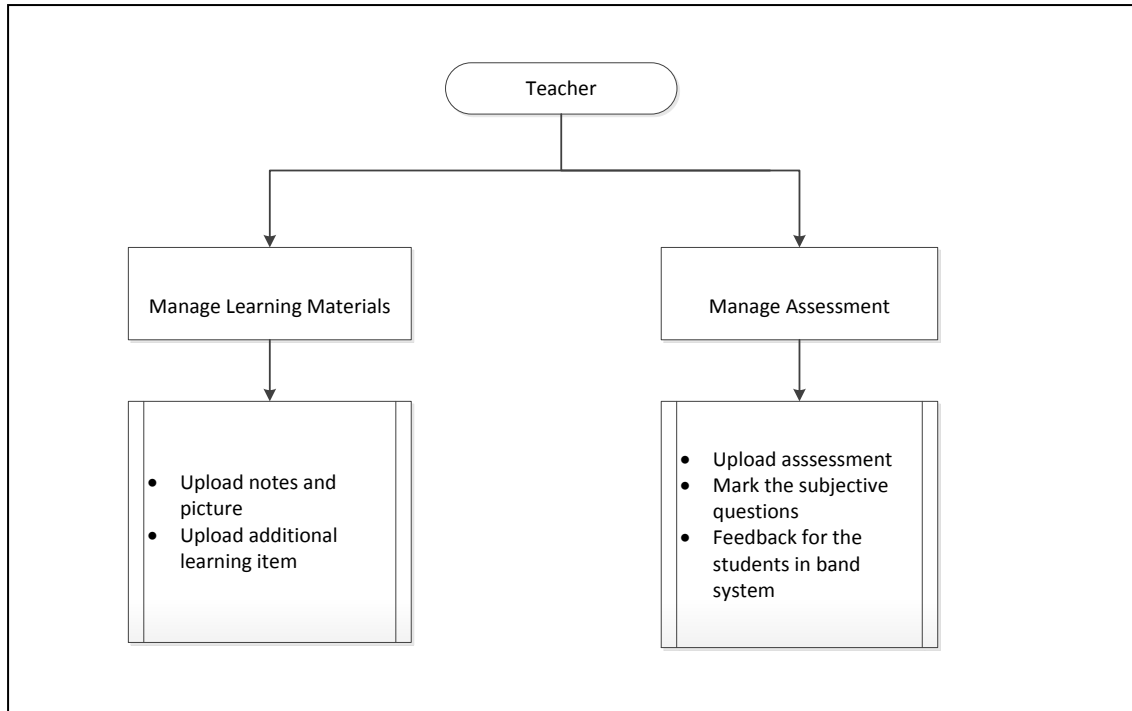
**Figure 2-2-1: Flow Chart of Main Forms of OPTS**



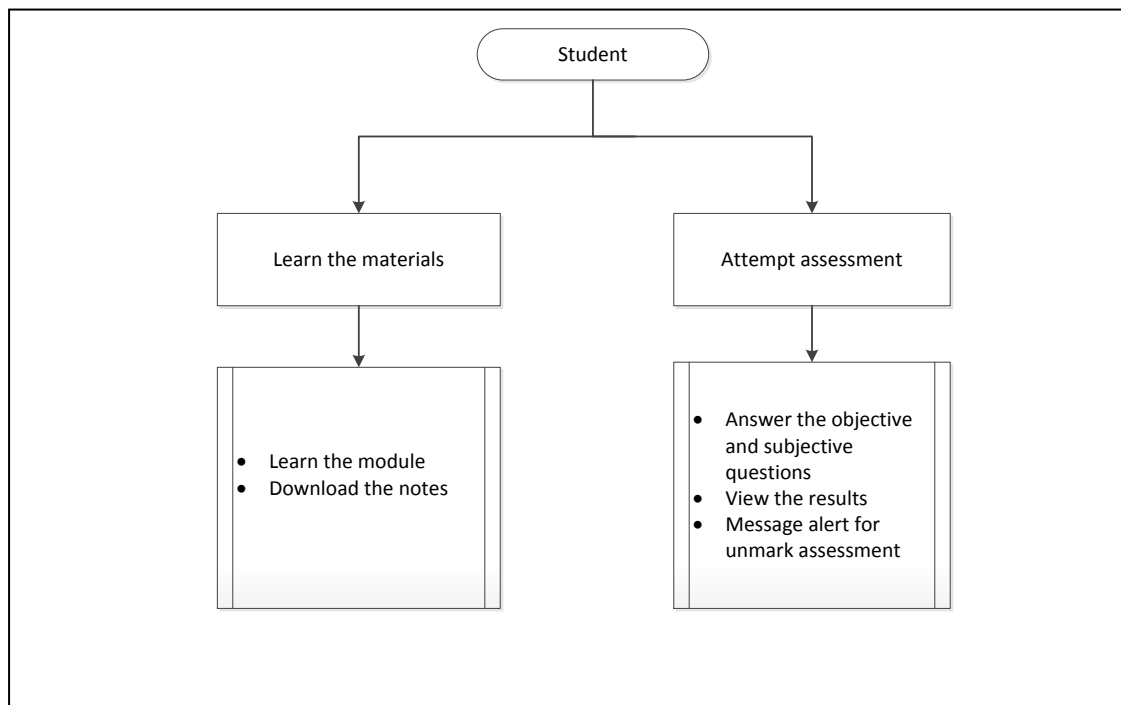
**Figure 2-2-2: Context Diagram of the OPTS**



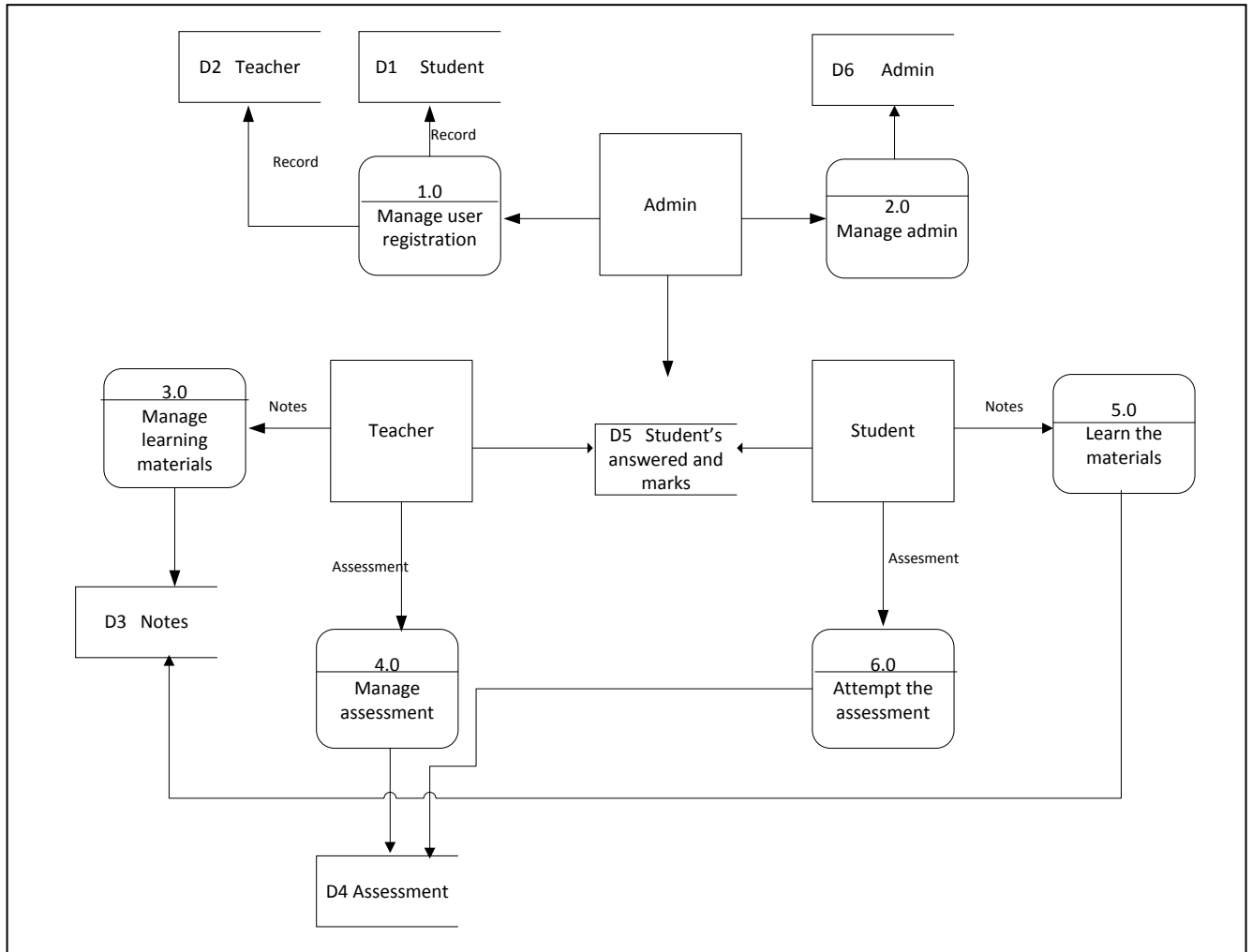
**Figure 2-2-3: Flow Chart of Admin**



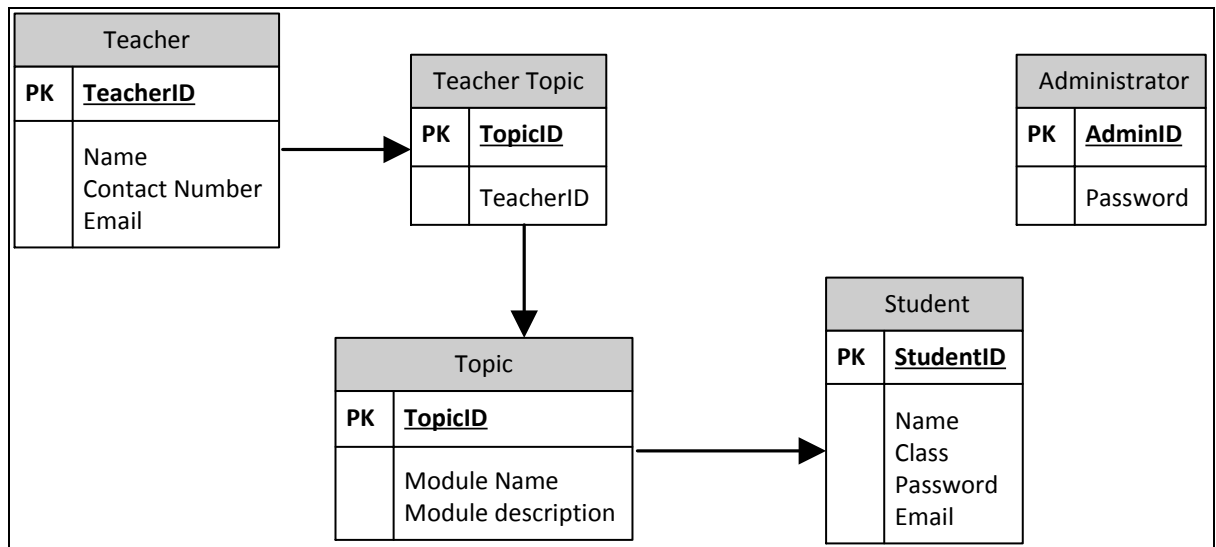
**Figure 2-2-4: Flow Chart of Teacher**



**Figure 2-2-5: Flow Chart of Student**



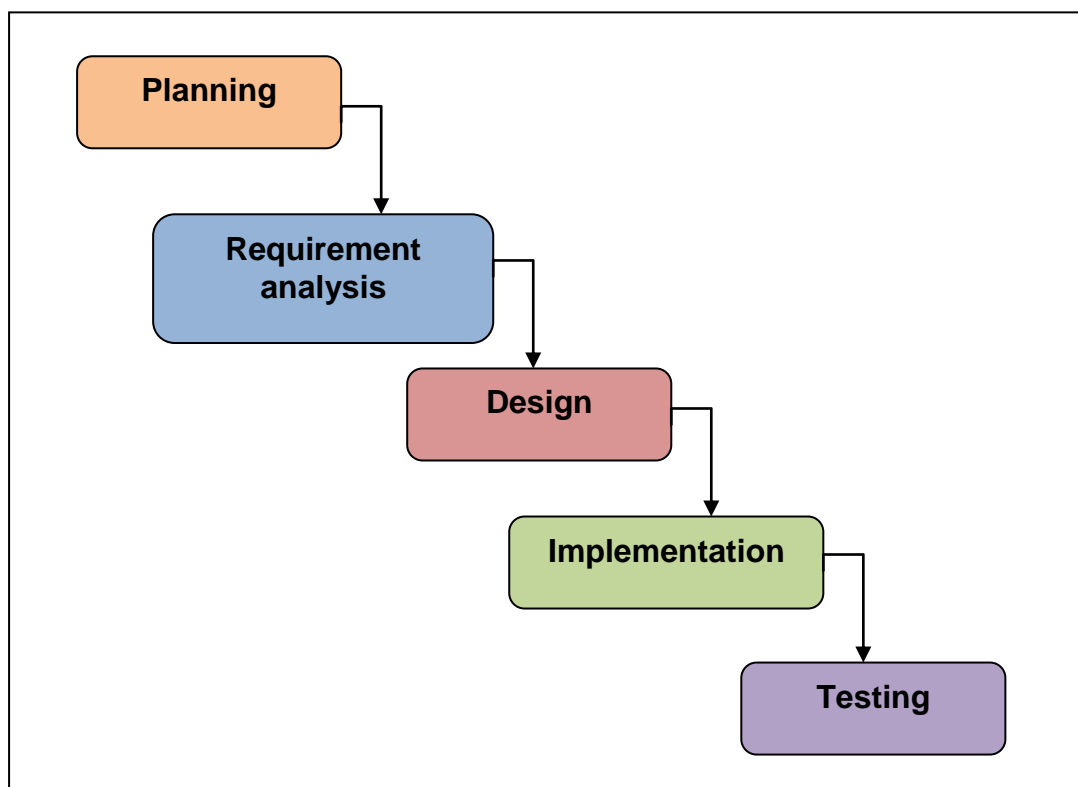
**Figure 2-2-6: Data Flow Diagram of OPTS**



**Figure 2-2-7: Database Design**

### 2.3 Method and Design Description

In this part methods that used to do this project will be discussed. The main core of methods is the rules or guideline that has to follow in order to complete a project. Methods that been selected for this was Software Development Life Cycle (SDLC). In developing Online Personal Tutoring System, SDLC method is chosen. Waterfall model is chosen to explain about the procedure that is used and going to use to complete this project. In this model there are five (5) phases that is requirement planning, requirement analysis, design, implementation and testing. This model is the most common model. These entire steps have to go through one by one in order to complete the project successfully. This method help to develop this project systematically to matches the business needs. In this part each step in Waterfall Model will be discuss to shows how the project have been started to developed and what is the next phase that will be go through in developing this system.



**Figure 2-3-1: Software Development Life Cycle in Waterfall Model**



### **2.3.1 Planning**

First phase in waterfall model is planning phase which purpose for identify the scope of the project and develop a schedule to allocate resources. Planning phase will ensure a system's total information system needs are identified, analyzed, prioritized, and arranged. There are few activities considered in this phase which are identifying problem, brainstorming of ideas, produce a schedule for the project and launch the project. First, the problem of project is identifying which is by using courseware as a teaching method is use in primary school. Second problem is students are paying a lot to register to Score A Programme. Students are not able to understand the text because they find it difficult to read. They prefer to listen to the text where they can understand better. A Gantt chart is produced to schedule the work and allocate the resources.

### **2.3.2 Requirement Analysis**

First step in requirement analysis is being done based on domain understanding. This process done based on literature review that has been discussed in previous part. The project feasibility is confirmed by doing research on internet and data about Online Personal Tutoring System comparison with existing tutoring system. Study on this project before initiating anything in this project. This phase is very important because it is like a mile stone for a beginning of a project. The study on his project will help to know more detailed about the project. The study help to identified what is the unresolved problem that boosts to initiate this project. In this phase, before designing the interface required to find out what is user requirement for this project. Meet the teachers and make interview to understand their needs in this project. Before meet the teachers make sure that basic information about the topic related information is collected so that when the requirement is given it will be clear and if it is not realistic can immediately explain to the teachers the limitation of the project. The user requirement should be clear and specific so that easy to meet the user requirement. Existing system evaluation should be done so that can relate with current project which will be very helpful. We also gathered information from the interview and identify the requirements of our users such as teachers and students. The main purpose of interview is to discover the requirements from user and organized them into in list form. After collect the requirements from the user, we have classify their requirements in the form of table so that easy for us to design the system.

### 2.3.2.1 Determining requirement

In determining requirement part, three sections are reviewed such as:

#### i. User requirement

For the user requirement, the table that contains list of requirement can refer in Table 2.1. The table below shows the requirements that we input in OPTS:

**Table 2-3-2-1: Requirements that we input in OPTS**

Reference No	Description	User
1.	User authorization using login page	i. Admin ii. Teacher iii. Student
2.	Student and teacher record registration	Admin
3.	Upload, add, edit, view and delete notes and questions.	Teacher
4.	Upload, add, edit, view and delete questions	Teacher
5.	View notes	Student
6.	Attempt questions: subjective and multiple choice question	Student
7.	Message alert for teacher	Teacher
8.	Mark subjective question.	Teacher
9.	Give mark based on band system	Teacher

**ii. Software and Hardware requirement**

In order to develop OPTS, software and hardware requirement has been identified as stated in the following table.

Table shows the list of required software to develop this project.

<b>Software</b>	<b>Purpose</b>
Adode Dreamviewer	Design Web Page and Function
myPhpAdmin	For the Database
Wamp Server	Use as a server
Microsoft Word 2007	Documentation of work
Microsoft Visio 2010	Flow Chart Design
Microsoft Project 2010	Gantt Chart Design

**Table 2-3-2-2: Software Requirement**

The table shows the required hardware to develop the OPTS

<b>Hardware</b>	<b>Purpose</b>
Toshiba Satellite C640	Develop project and documentation work
TOSHIBA Hardisk 500GB	Project Backup Storage
Kingston Pendrive 8GB	Data transfer and project backup

**Table 2-3-2-3: Hardware Requirement**

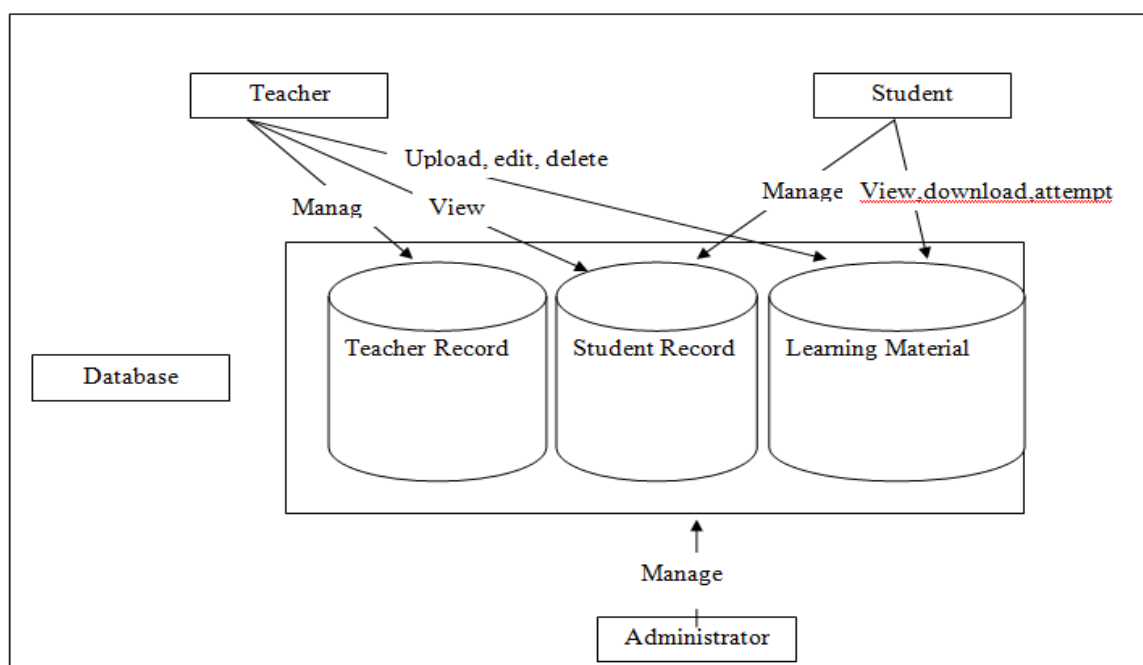
### 2.3.2.2 Structuring Requirement

For the structuring requirement, refer to the table the matrix table in Appendix which shows the cross checks between the user requirement data flow diagram. This table is useful to make sure whether data flow diagram compatible with the user requirement.

### 2.3.2.3 Design Strategy

In design strategy part, the entire relevant diagram has been draw to get the view of the module that going to carry respective functions. Flow chart, data flow diagram and context diagram are drawn to complete this task. All the important diagram that use develop the system can be refer in 2.2.

### 2.3.3 Design



**Figure 2-3-3-1: Architecture of OPTS**

The above figure shows the system architecture of the OPTS. There are main three modules which show the main user of the system with the user requirement functions. There are administrator module, teacher module and student module.

In administrator module, administrator plays role as managing user registration. Besides that, administrator also handles the student's registration and teacher's registration should consist of their particular detail as they mentioned in the system. Administrator also manage teacher or student module.

In teacher module, teachers will manage learning material and manage the assessment. Teacher will upload notes based topic and subtopic. Teachers also will add additional notes for their students. The assessments available are multiple choice question and subjective question. Teacher can mark the subjective assessment for the students .Students will get the feedback from teacher for specify subjective question in the form of band.

In student module, students will attempt assessment learn the study materials. They also can answer the assessment and can get feedback from teachers.

### **2.3.4 Implementation**

This part will be discussed in 2.4 as development part. The purposes of each interface will be discussed clear in development part. The detail system specification is included in this phase. The coding part will be implemented here. In this phase steps to make the system run will be taken. This is the most complicated phase that will determine whether the project is success or failure.

### **2.3.5 Testing**

This part will be discussed in 2.5. In this phase the code that written is tested using various steps. The user will test the code whether it follows the user requirement. There various type of testing including error testing. Any error that occurs in the code also will be detected and tested to avoid from any defect in the system. The user should be fully satisfied with the system and in this phase the system is tested in many different ways by using software testing system. Their purpose is to produce OPTS.

In order to test the usefulness of the OPTS ,survey form is prepared and will be give to teacher and students of Sekolah Kebangsaan Setapak Indah. OPTS will be tested by teachers and students in real classrooms. There will two science teacher and 10 students in every classroom. Each student had a personal computer that had OPTS on. The teacher was still in charge of the tutoring process and asked his/her students to perform certain tasks using OPTS. In addition, teachers will asked to evaluate the overall performance of the system and express their opinion about the usability of such an effective tutoring system in a real classroom.

## 2.4 Development Plan

Development means turning the system specification into a functional system by using development tools. In this phase, all four modules stated in design phase will be coded by using php, adobe dreamviewer and wamp Server database used as database to integrate with the system so that the system may retrieve and update data to the database.

In this phase, we have described the main function of the some of the interface. We have described in table form.

### 2.4.1 Home Page

In this module, user can view login, products, services and contacts of this website.



Figure 2-4-1: Home Page

## 2.4.2 Login Page

The login module will function based on the source code given below. There are three users in OPTS system such as admin, teacher and student. For the login purposes, the users need username and password. The username and password for teacher and students will be assigned by the admin. Therefore, during login process the admin, teacher and students will redirect to their respective home pages. We have assigned the redirect page of admin, teacher and student according to the access number 1, 2 and 3 respectively.



Figure 2-4-2-1: Login Page



**Table 2-4-2: Login Page**

<b>Name</b>	<b>Description</b>	<b>Reference No</b>
txtUsername	User need to enter their name	1
txtPassword	User need to enter their password. For teacher the admin will provide password. For students, they need to enter the password based on the password given.	
btnSubmit	User need to click on submit button to enter their respective homepage.	

+ Options				id	username	password	access			
<input type="checkbox"/>		Edit		Copy		Delete	1	test	test123	2
<input type="checkbox"/>		Edit		Copy		Delete	2	admin	admin123	1
<input type="checkbox"/>		Edit		Copy		Delete	3	staff	staff123	2
<input type="checkbox"/>		Edit		Copy		Delete	4	student	student123	3
<input type="checkbox"/>		Edit		Copy		Delete	5	try	20923	2
<input type="checkbox"/>		Edit		Copy		Delete	6	student1	6705	3
<input type="checkbox"/>		Edit		Copy		Delete	7	prabu123	17686	2
<input type="checkbox"/>		Edit		Copy		Delete	8	raja	20119	2
<input type="checkbox"/>		Edit		Copy		Delete	9	kanna	10372	2
<input type="checkbox"/>		Edit		Copy		Delete	10	kanagess	27646	3

Check All / Uncheck All With selected: Change

**Figure 2-4-2-2: Database of Login Page**

```

if($_SESSION['access']==1)
{
echo "<a href='admin.php'>OPTS Management System</a>";
}
if($_SESSION['access']==2)
{
echo "<a href='staff_profile.php'>My Profile</a>";
}
if($_SESSION['access']==3)
{
echo "<a href='myinfo.php'>My Personal Information</a>";
}

```

**Figure 2-4-2-3: Coding of Login Page Access**

### 2.4.3 Admin Home Page

The main function of the admin is add new teacher, update teacher record, delete teacher record, add new student, update student record and delete student record.



Menu :

[My Profile](#)  
[Change Password](#)  
[Update Profile](#)

[Staff Record](#)  
[Add New Teacher](#)

[Student Record](#)  
[Add New Student](#)

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**Figure 2-4-3: Admin Home Page**

**Table 2-4-3: Admin Home Page**

<b>Name</b>	<b>Description</b>	<b>Reference</b>
linkHome	Admin will go to his/her home page	2
linkMyProfile	This link will go admin's profile to view the details	2
linkChangePassword	This link used to change password	2
linkUpdateProfile	This link used to update the profile's detail	2
linkStaffRecord	Both link used by admin to view and delete teacher and student records. The can view the details by using user Id.	2
linkStudentRecord		2
linkAddNewTeacher	Both add new teacher and student link will have same functionality. In both link, they need to key all their particulars as shown in the main interface.	2
linkAddNewStudent		2
linkLogout	Admin will go to system home page	2

## 2.4.4 Teacher Home Page

The screenshot displays the Teacher Home Page for the Online Personal Tutoring System. At the top, there is a banner image of four children smiling, with the text "Online Personal Tutoring System" overlaid in a cursive font. Below the banner is a navigation bar with links for [Home](#), [Question Bank](#), [Notes](#), and [Logout](#). To the right of the navigation bar, it says "Welcome, staff" and "14/05/2013".

On the left side, there is a vertical menu with the following items:

- Menu :
- [My Profile](#)
- [Change Password](#)
- [Update Profile](#)

Below the menu, there are sections for "Notes:" and "Question Bank:" with the following links:

- Notes:
  - [Add New Notes](#)
  - [Add Points](#)
  - [Upload Notes](#)
  - [Manage Notes](#)
- Question Bank:
  - [Upload New Questions](#)

In the center of the page, there is a light blue box containing the copyright notice: "©2013 Copyright Reserved by: OPTIS SDN. BHD."

**Figure 2-4-4: Teacher Home Page**

**Table 2-4-4: Teacher Home Page**

<b>Name</b>	<b>Description</b>	<b>Reference</b>
linkHome	Teacher will go to his/her home page	1
linkQuestionBank	This link use to view the question	4
linkNotes	This link used to view the notes which uploaded	3
linkMyProfile	This link will go teacher's profile to view the details	1
linkChangePassword	This link used to change password	1
linkUpdateProfile	This link used to update the profile's detail	1
linkAddNewNotes	This link used to add new notes of subtopic	2
linkStudentMark	This link used to view student mark	2
linkUploadNotes	This link used to upload notes according to the chapter	3
linkManageNotes	This link used to upload the notes	3
linkNewQuestion	This link used to upload new questions for students	4
linkLogout	Teacher will go to system home page	1

## 2.4.5 Student Home Page



**Figure 2-4-5: Student Home Page**

**Table 2-4-5: Student Home Page**

<b>Name</b>	<b>Description</b>	<b>Reference</b>
linkHome	Admin will go to his/her home page	3
linkMyProfile	This link will go admin's profile to view the details	3
linkChangePassword	This link used to change password	3
linkUpdateProfile	This link used to update the profile's detail	3
linkViewNotes	This link used by students to view notes	5
linkDownloadNotes	This link used to download the notes	5
linkViewExam	This link used to view the exam and attempt the questions	6
linkLogout	Admin will go to system home page	1



## 2.4.6 Development of Coding

In this part, development of main coding will be explained.

Table below contains information that need to enter in each user.

**Table 2-4-6-1: Set Up A New Account**

Admin	Teacher	Student
['fullName']	['fullName']	['fullName']
['icNo']	['icNo']	['icNo']
['add1']	['add1']	['gender']
['add2']	['add2']	['add1']
['poscode']	['poscode']	['add2']
['state']	['state']	['poscode']
['phone']	['phone']	['state']
['email']	['email']	['phone']
['username']	['username']	['email']
		['username']

Table below shows how the logout session destroy.

```
//session_destroy();
unset($_SESSION['username']);
unset($_SESSION['access']);
session_destroy();
echo "<script>alert('You have logout successfully!')
```

**Figure 2-4-6-1: Logout Successfully**

Figure below shows the database how the notes are kept.

	notesId	title	owner	fileName	description
Edit  Copy  Delete	8	Notes year 6	staff	science_unit4.pdf	Science unitt 4
Edit  Copy  Delete	10	Testing	staff	testNotes.pdf	Testing upload file to OPTS
Edit  Copy  Delete	11	chapter 2	staff	SCIENCE notes chapter 2.pdf	life process
Edit  Copy  Delete	12	testnotes	staff	notes_video.pdf	video

Check All / Uncheck All With selected: Change Delete Export

**Figure 2-4-6-2: Database of Notes**

Figure below shows how upload file not more than 2Mb.

```
//echo $_FILES['uploadedfile']['size']."<br> size:20000000";

        if($_FILES['uploadedfile']['size'] > (20000000)) //can't be larger
than 1 MB
        {
                echo "ERROR 402! Your file\'s size is to large.";
        }
```

**Figure 2-4-6-3: Upload Notes File**

```
// Where the file is going to be placed  
if(isset($_FILES['uploadedfile'])){  
    $target_path = "notes/";  
    $target_path = $target_path . basename( $_FILES['uploadedfile']['name']);  
    $target_path = "notes/";  
    $target_path = $target_path . basename( $_FILES['uploadedfile']['name']);  
    if(move_uploaded_file($_FILES['uploadedfile']['tmp_name'], $target_path)) {  
        echo "The file ". basename( $_FILES['uploadedfile']['name']).  
        " has been uploaded";  
    } else{  
        echo "There was an error uploading the file, please try again!";  
    }
```

**Figure 2-4-6-4: Place To Keep the File**

## 2.5 Testing

In this chapter, all the interfaces will be tested by the developer before it tested with user of the system such as admin, teacher and students. OPTS is build for Standard 4 Science subject. OPTS is developed with all the functions as required. Database connection is also a successfully enabling data to be saved and retrieved easily.

Main modules that generate output are:

- 1) Login Page
- 2) Admin Management
- 3) Student Management
- 4) Teacher Management
- 5) Notes Management
- 6) Question Management
- 7) Check answers
- 8) Check marks and band
- 9) Answer Questions

### 2.5.1 Testing the Interface

- i. Login module by admin, teacher and students

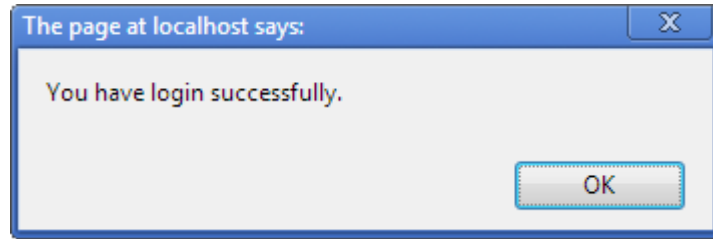


The image shows a web interface for logging in. At the top, there is a green header bar. Below it, the word "LOGIN" is centered. There are two input fields: "Username:" with the text "admin" and "Password:" with a masked password "\*\*\*\*\*". Below the fields are two buttons: "Submit" and "Reset". At the bottom, there is a footer bar with the text "© Copyright Reserved by OPTS" and a "Home" link.

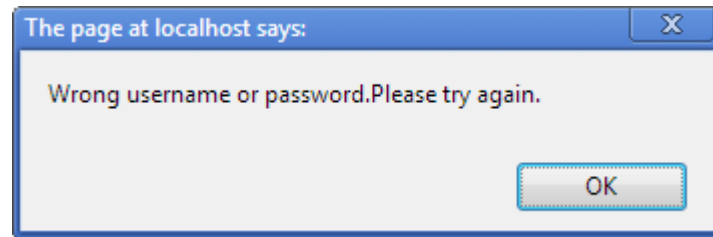
**Figure 2-5-1: Login Page by admin, teacher and students**

**Table 2-5-1: Login Page by Admin, Teacher and Student**

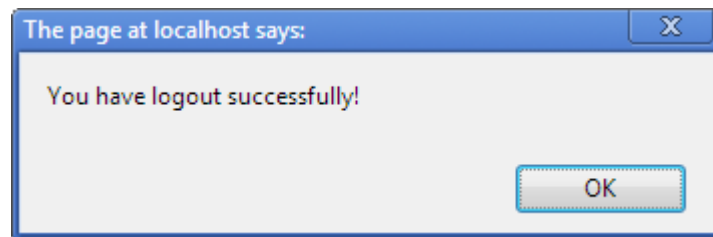
<b>Login</b>	<b>Set Up data</b>	<b>Expected Outcome</b>
Valid	txtUsername:Correct	Pop Up Message: You have login successfully. Refer Figure 2.5.1
	txtPassword:Correct	
Partial Valid	txtUsername:Correct	Pop Up Message: Wrong username or password. Please try again. Refer Figure 2.5.2
	txtPassword:Incorrect	
Invalid	txtUsername:Incorrect	Pop Up Message: Wrong username or password. Please try again. Refer Figure 2.5.2
	txtPassword:Incorrect	



**Figure 2-5-2: Login successfully**



**Figure 2-5-3: Wrong Username Password**



**Figure 2-5-4: Logout successfully**

## ii. Admin module

Menu :

- [My Profile](#)
- [Change Password](#)
- [Update Profile](#)
- [Staff Record](#)
- [Add New Teacher](#)
- [Student Record](#)
- [Add New Student](#)
- [Notes](#)
- [Delete Student Record](#)

MY PROFILE

Full Name :

My Kad :

Address 1 :

Address 2 :

Poscode :

State :

Phone Number :

Email Address :

Username :

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**Figure 2-5-5: Admin My Profile**

When we click on change details we will produce the following screen shot.

Menu :

- [My Profile](#)
- [Change Password](#)
- [Update Profile](#)
- [Staff Record](#)
- [Add New Teacher](#)
- [Student Record](#)
- [Add New Student](#)
- [Notes](#)
- [Delete Student Record](#)

MY PROFILE

Full Name :

My Kad :

Address 1 :

Address 2 :

Poscode :

State :

Phone Number :

Email Address :

Username :

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**Figure 2-5-6: Admin Update Profile**

In this screen, admin allowed to change his or her address1, address2, postcode, state, phone number, email address. Admin not allowed to change the full name, my kad and username. This is because the system is only required single admin. Once click on update details button, the page at localhost says that “Staff record has been updated successfully”

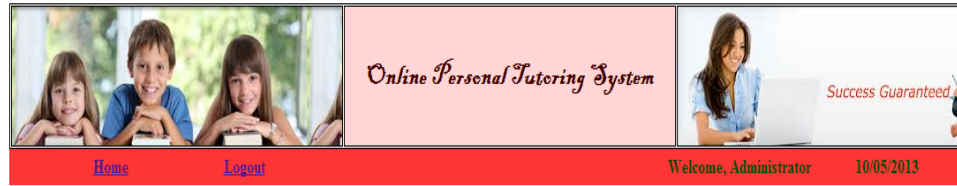
The screenshot shows the 'CHANGE PASSWORD' form within the 'Online Personal Tutoring System' interface. The form includes three input fields: 'Current Password', 'New Password', and 'Re-type New Password', each followed by a colon and a text box. Below these fields is a 'Change Password' button. At the bottom of the page, there is a copyright notice: '©2013 Copyright Reserved by: OPTS SDN. BE'.

**Figure 2-5-7: Change Password**

**Table 2-5-2: Change Password**

Change password	Set Up data	Expected Outcome
Valid	Current password:Correct	Password has been changed successfully
	New password:Correct	
	Re-type new password:Correct	
Invalid	Current password: Incorrect	Current password not matcched
	New password:Incorrect	
	Re-type new password:Incorrect	





- Menu :
- [My Profile](#)
- [Change Password](#)
- [Update Profile](#)
- [Staff Record](#)
- [Add New Teacher](#)
- [Student Record](#)
- [Add New Student](#)
- [Notes](#)
- [Delete Student Record](#)

STAFF RECORD

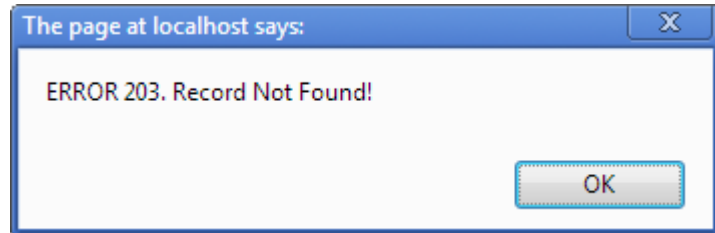
No.	Staff ID	Staff Name	Staff IC	Gender	Experience	Address 1	Address 2	Postcode	State	Phone No.	Email Address	Username	Action
1	25	Administrator	123567890	Male	3	no 123 My Street 21	Bandar Sungai Petani	8000	Kedah DA	0163217756	plenitude_it@yahoo.com	admin	
2	28	staff	321123456543	Male	8	address saya	aadd1	8000	sdad	sdas	plenitude_it@yahoo.com	staff	
3	29	teacher name	12345678	Male	2	my add1	my add2	12345	my state	765432188	prabu_daa@yahoo.com.sg	teacher	

Enter User Id

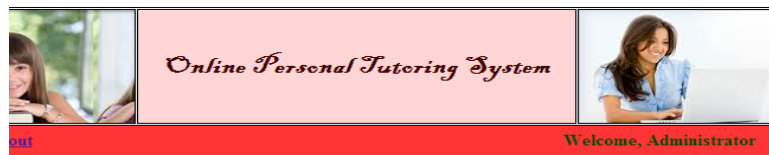
©2013 Copyright  PTS SDN. BHD.

**Figure 2-5-8: Staff Record**

Admin can view the staff record and student record by enter their user id in find details boox. If the admin insert wrong user id, then the page at localhost says that “ERROR 203.Record Not Found!”



**Figure 2-5-9: Record Not Found**

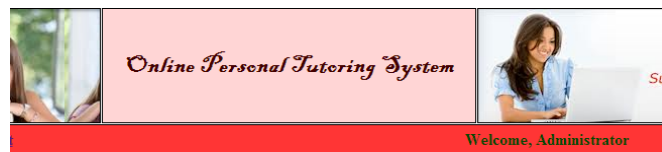


### Set Up A New Teacher Account

Required fields are marked \*

Full Name\* :   
 Username \* :   
 IC Number \* :   
 Gender \* :  male  female  
 Experience \* :  Years  
 Address 1 \* :   
 Address 2 \* :   
 Poscode \* :   
 State \* :   
 Phone \* :   
 Email Address \* :

**Figure 2-5-10: Set Up New Teacher Account**



### Set Up A New Student Account

Required fields are marked \*

Full Name\* :   
 Username \* :   
 My Kad \* :   
 Gender \* :  male  female  
 Address 1 \* :   
 Address 2 \* :   
 Poscode \* :   
 State \* :   
 Phone \* :   
 Email Address \* :

**Figure 2-5-11: Set Up A New Student Account**

## iii. Teacher module

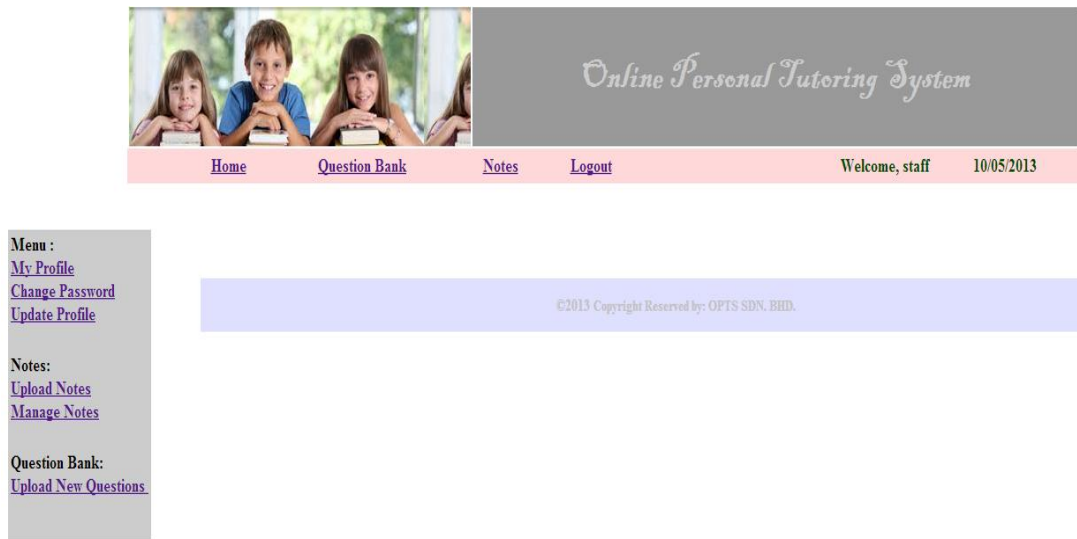


Figure 2-5-12: Teacher Module



Figure 2-5-13: Upload File

There was an error uploading the file, please try again!. If we forget to choose file and upload the button.

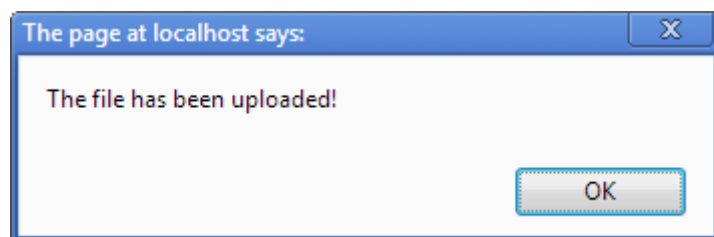


Figure 2-5-14: Error Uploading File

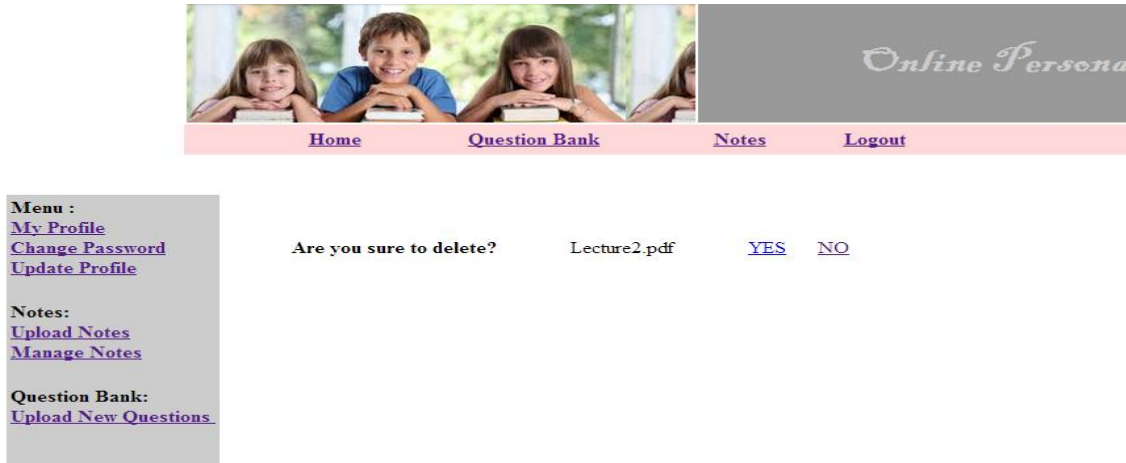


Figure 2-5-15: Delete File

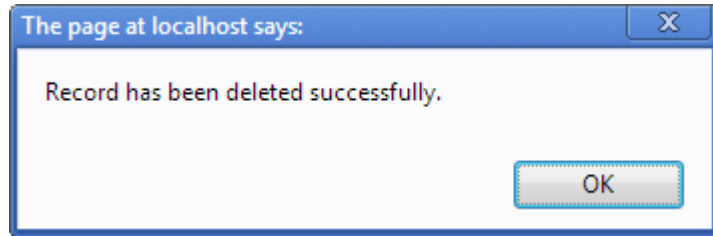


Figure 2-5-16: Record Deleted



MANAGE NOTES						
No.	Notes ID	Title	Description	File Name	Action	Action
1	8	Notes year 6	Science unitt 4	science_unit4.pdf	<a href="#">View</a>	<a href="#">Delete</a>
2	10	Testing	Testing upload file to OPTS	testNotes.pdf	<a href="#">View</a>	<a href="#">Delete</a>
3	11	chapter 2	life process	SCIENCE notes chapter 2.pdf	<a href="#">View</a>	<a href="#">Delete</a>
4	12	testnotes	video	notes_video.pdf	<a href="#">View</a>	<a href="#">Delete</a>

[Upload New Notes](#)

Figure 2-5-17: Manage Notes



**QUESTION BANK**

No.	Title	No.of Question	View	Delete
1	exam test	5	<a href="#">View</a>	<a href="#">Delete</a>
2	test 2	3	<a href="#">View</a>	<a href="#">Delete</a>
3	unit 2	5	<a href="#">View</a>	<a href="#">Delete</a>
4	science	3	<a href="#">View</a>	<a href="#">Delete</a>
5	hhh	2	<a href="#">View</a>	<a href="#">Delete</a>

[Upload New Exam Paper](#)

**Figure 2-5-18: Question Bank**



**UPLOAD NEW QUESTION**

Exam Title \* :

Number of Questions \* :

**Figure 2-5-19: Upload New Question**



**Menu :**  
[My Profile](#)  
[Change Password](#)  
[Update Profile](#)

**Notes:**  
[Upload Notes](#)  
[Manage Notes](#)

**Question Bank:**  
[Upload New Questions.](#)

Error! Number of question field is empty!

**Figure 2-5-20: Error Message**



Title successfully created.  
[Click here to Add Questions](#)

**Figure 2-5-21: Title Successfully Created**

Home Question Bank Notes Logout Welcome, staff 10/05/2013

Menu :  
[My Profile](#)  
[Change Password](#)  
[Update Profile](#)

Notes:  
[Upload Notes](#)  
[Manage Notes](#)

Question Bank:  
[Upload New Questions](#)

### UPLOAD NEW QUESTION

Question Number : 1  
 Exam Title : science

Question \* :

Answer A \* :

Answer B \* :

Answer C \* :

Answer D \* :

Correct Answer \* :

**Figure 2-5-22: Upload New Multiple Choice Question**

iv. Student Module



Menu :  
[My Profile](#)  
[Change Password](#)  
[Update Profile](#)

Notes Center:  
[View Notes](#)  
[Download Notes](#)

Exam Center:  
[View Exam](#)

Figure 2-5-23: Student Module

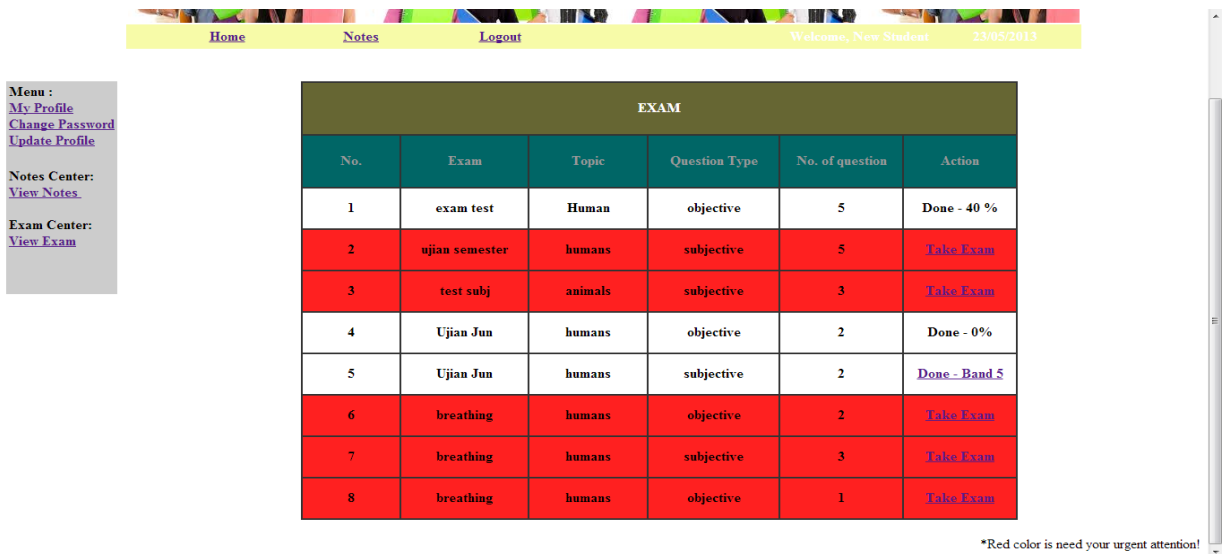


Figure 2-5-24: View Exam

## **2.6 Result and Discussion**

In this chapter, all the output of the system will be discussed. Detail about the result analysis, survey result, advantages and disadvantages, suggestions and development of research developed also discussed in this chapter. Hopefully, the discussion can bring ideas and more benefits to the future developer in order to upgrade and enhance the performance and functionality of the system in the future.

### **2.6.1 Result analysis**

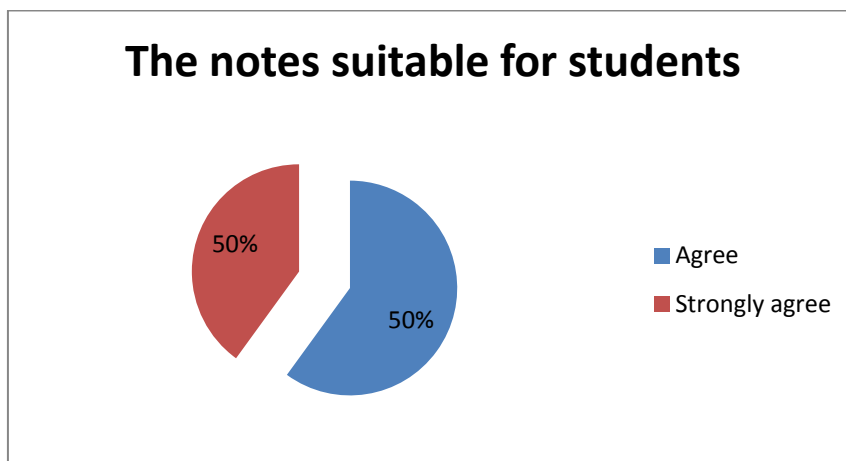
The developed application OPTS has met all the objectives of this project, which are:

- iv. To provide medium for sharing teaching material for primary school year 4 science students
- v. To provide platform for year 4 science students to the current KSSR(KURIKULUM STANDARD SEKOLAH RENDAH) which is based on band system
- vi. To manage notes and questions module for primary school science year 4 students for life process topic

There is the evidence of the OPTS system being used by students and teacher. After finishing final phase that is the interaction between interface and database, the whole project will be tested by the user. All the coding and interface will be test so that the system may function properly. Finally the complete system will be implemented into the selected primary school which is Sekolah Kebangsaan Setapak Indah. Through the testing phase the around 4 science teachers from Sekolah Kebangsaan Setapak Indah and around 10 students of standard 4 from will be test to use the system. Two types of questionnaires are prepared for the teachers and students respectively. Then, the results are collected whether the performance is according to the expectation or not. If not, the process will be repeated all over again and if the performance is good, the results will be collected and the conclusion will be discussed. Based on the outcomes from the teachers and students, the results of findings are discussed.



## 2.6.2 Finding from teacher's survey result

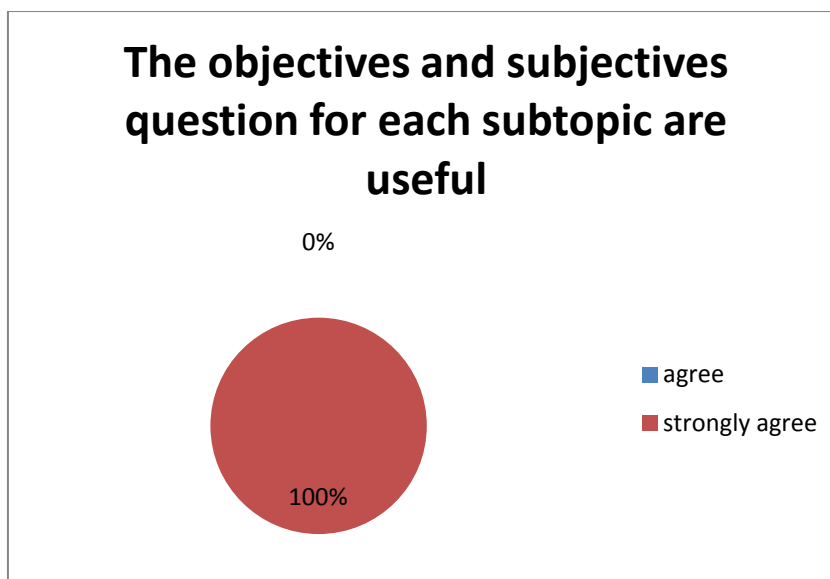


**Figure 2-6-2-1: The Notes Suitable For Students**

The pie chart above shows us suitability of notes for students by teachers. They are given 5 options, strongly disagree, disagree, neutral, agree and strongly disagree to choose whether the notes are suitable for students or not.

There are about 50% of teachers choose strongly agree option as their answer. The rest 50% of teachers choose agree option as their answer. The main reason teacher thought that the notes are suitable because the subtopic of each notes is provided for students. The additional notes also is provided with the link for video where students can view video of the certain process.

In conclusion, the majority of teacher prefer the notes in OPTS is suitable for science year 4 science students based on the current curriculum education system.

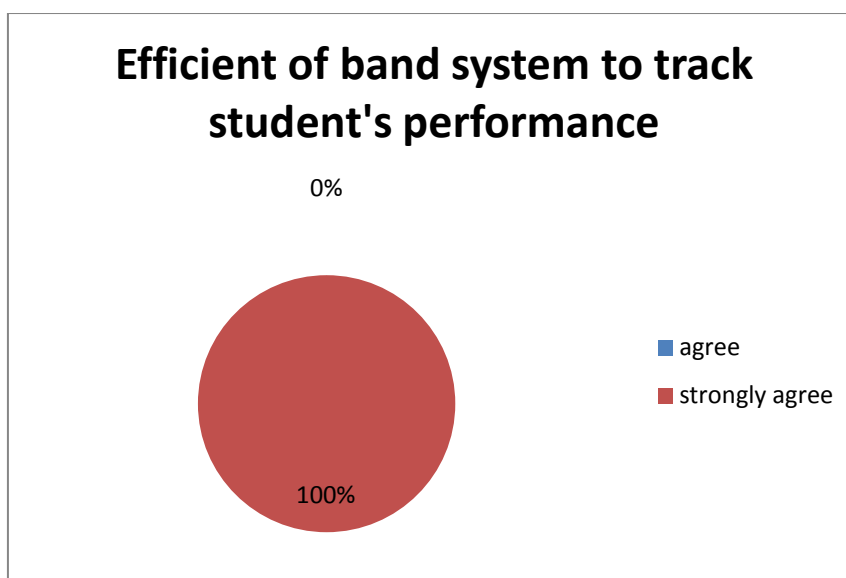


**Figure 2-6-2-2: The Objectives and Subjective For Each Subtopic Are Useful**

The pie chart above shows us importance of objective and subjective questions for students. They are given 5 options, strongly disagree, disagree, neutral, agree and strongly disagree to choose whether the objective and subjective questions useful for students or not.

There are majority of 100% teachers choose strongly agree option as their answer. The main reason teacher thought that the objective and subjective questions useful for students because students can attempt the anytime after they read the notes. The questions also will be given based on the subtopics of the each main topic.

In conclusion, the majority of teacher prefer to have objective and subjective questions in OPTS is suitable for science year 4 science students based on the current curriculum education system.



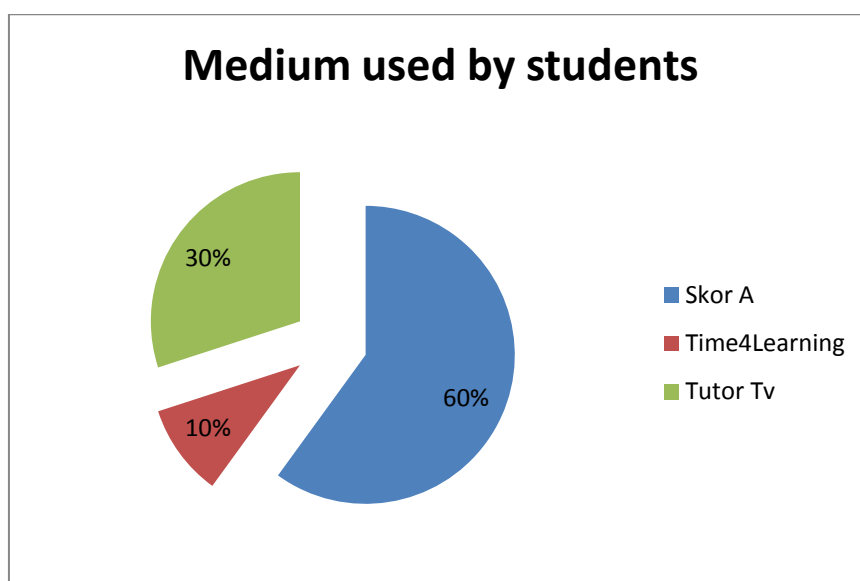
**Figure 2-6-2-3: Efficient of band system to track student's performance**

The pie chart above shows efficient of band system to track the student's performance. They are given 5 options, strongly disagree, disagree, neutral, agree and strongly disagree to choose whether the objective and subjective questions useful for students or not.

There are majority of 100% teachers choose strongly agree option as their answer. The main reason teacher thought that band system efficient to track student's performance because nowadays band system is used for students where in year 1 to year 3. Therefore, this system can become as a platform for teacher to view the performance of students in year 4. It is better than manual method.

In conclusion, the many teacher prefer tracking performance of students by band system in OPTS especially for science year 4 students based on the current curriculum education system.

### 2.6.3 Findings from student's result

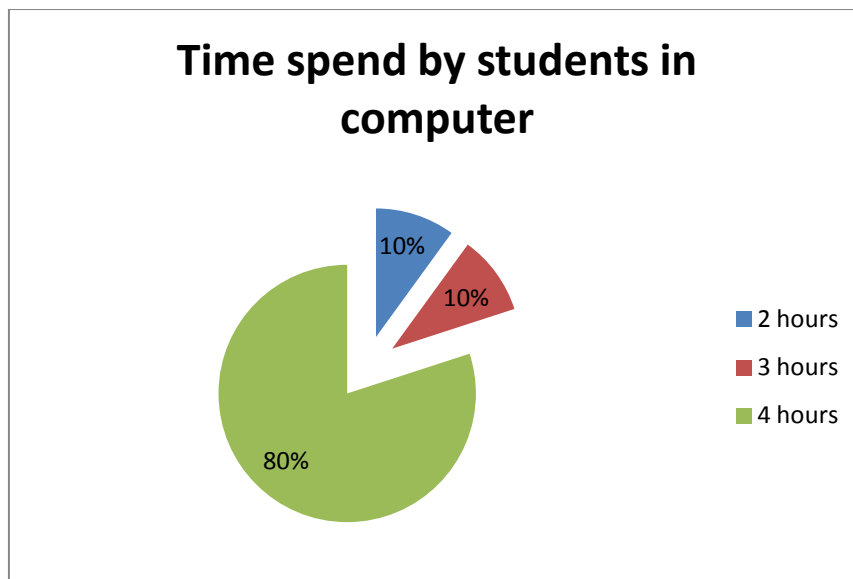


**Figure 2-6-3-1: Medium Used By Students**

The pie chart above shows us types of medium used by the students . They are given 3 options, Skor A, Time4Learning and Tutor Tv to choose whether which medium they used before for study purposes.

There are majority of 60% students choose Skor A option as their answer. The rest 30% and 10% of students chooses Time4Learning and Tutor Tv respectively as their answer. The main reason students choose Skor A because their parents willing to pay for their for their educational purposes. At the same time, Skor A programme provided students many criteria which is useful to their studies. Some students uses Tutor Tv because is available in bilingual and the tips they given is 100% based on examination type. Only few students uses Time4Learning as a medium because this website not completely based on syllabus of current education.

In conclusion, the majority of students prefer to use Skor A programme and this shows that there is chance to students to use OPTS as it provided same functions as Skor A.

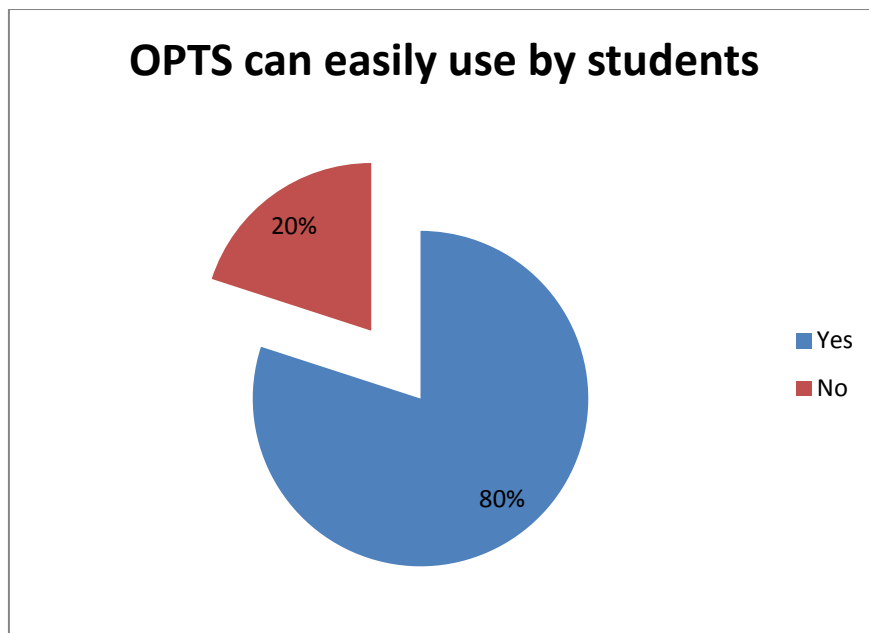


**Figure 2-6-3-2: Time Spend By Students in Computer**

The pie chart above shows us time spend by students in computer at their school and house. They are given 3 options, 2 hours, 3 hours and 4 hours to choose how many hours they used to spend in computer.

There are majority of 80% students chooses 4 hours option as their answer. Next, 2 hours and 3 hours show same percentage on the time students spend in computer which is 10% only. The main reason students spend more time in computer because nowadays computer became medium for students to check their facebook, play games and other purposes.

In conclusion, the majority of students spend more hours in computer, therefore they can easily access to OPTS and they can think it is better to understand the topic.



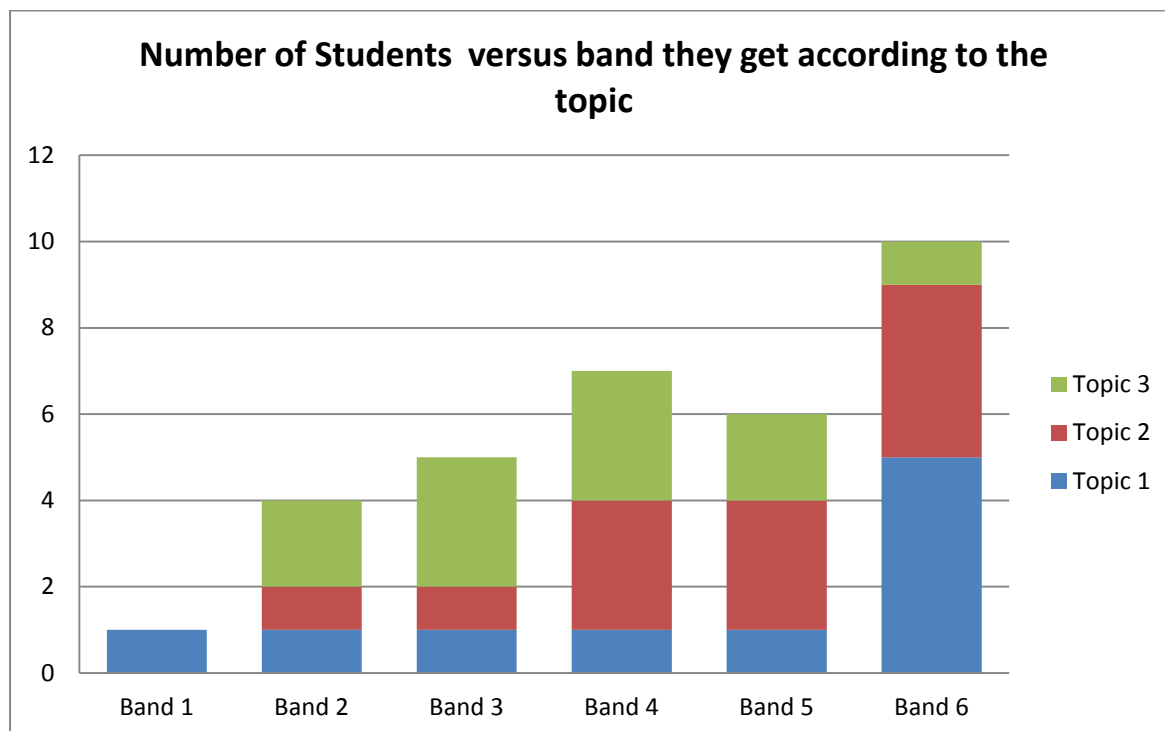
**Figure 2-6-3-3: OPTS can easily use by students**

The pie chart above shows us usability of OPTS of students. They are given 2 options, yes or no to choose whether the OPTS can easily used by students or not.

There are majority of 80% students choose yes option as their answer. The rest 20% choose no option as their answer. The main reason students thought that OPTS can easily use by students because they like the features in OPTS such as view notes and attempt the questions.

In conclusion, the majority of students can use OPTS easily because they know how to access to the system.

## 2.6.4 Findings based on database of the system



**Figure 2-6-4-1: Number of Students versus band they get according to the topic**

The bar graph above shows us number of students versus band they get according to the topic. The band system range is start from band 1 to band 6. There are about 10 students use this system and teachers track their performance using band system.

Based on this graph, the number students who get band 6 for topic 1 is more than compared to other two topics. Therefore, we can conclude that majority of students understand the topic 1 very well. Meanwhile, number of students who get band 6 is for topic 3 is very less because they find it the question for topic 3 very hard.

In conclusion, teachers prefer this band system because it is better than manual system where they need to update to the class teacher every month. But now, if it is in system, they can refer to their student's performance every time.

### 2.6.5 Advantages and Disadvantages

In this section, all the advantages and disadvantages of Tutoring System will be discussed which will help to enhance the system in future.

#### Advantages

- i. OPTS is more convenient for the teachers to key in band for students compare to manual.
- ii. OPTS provided students to view the additional notes and video regarding the topic.
- iii. The management of notes and questions is stored in efficient way.
- iv. Only authorized user can accessed to the system.

#### Disadvantages

- i. OPTS is used only for science year 4 students.
- ii. This system also concern about only one topic in science year 4 which is Life Process.
- iii. The system does not consist of other types of questions such as drag and drop and true and false.
- iv. Additional study materials that uploaded cannot be exceeded 2MB and should be in pdf format.

### 2.6.6 Assumptions

In order to make the system run properly there are some assumptions and constrain that needed to be fulfilled. They are:

- i. The system runs in Windows based computer
- ii. The computer or laptop is connected to the Internet in order to use the Tutoring System
- iii. The computer requirements is matching or higher than system specification requirement



### **2.6.7 Suggestion and enhancement of project developed**

Although this system fulfil objectives, scopes and purposes successfully, but it still need to be improved and enhanced. There are several enhancements that can be carried out for future improvement of OPTS:

- i. The interface design can be changed to make the system more attractive.
- ii. The functionality of the system should be added in the future.
- iii. The database design of the system still needs to be enhanced.

### 3.0 CONCLUSION

As a conclusion, since the advance technology in Malaysia growing more and more advance from day to day, it is time for the primary school teachers convert their teaching style among students. OPTS will upgrade the conventional system to computer oriented learning to primary school students. From the research Online Tutoring System(OTS) is found the most effective system when compared with existing systems such as CD-ROM courseware learning and Web-based learning(SKOR A).The computer usage is fast developing in online personal tutoring system. Educational web based application is creatively developed to help teaching and learning of Science subject for primary school students. OPTS will achieve the above objective which provide medium for share teaching and learning material among primary school students .OPTS is used to implement the understanding of science subject in life process topics for primary school students .Therefore, designing open, flexible and convenient OPTS for primary school students in Malaysia is challenging. OPTS will make the learning and teaching process more comfortable and efficient. Waterfall model combined with prototyping technique is used for the design and development process. Learning materials, learning assessment such as quizzes and assignments are provided in OPTS. OPTS gives students a flexibility on their learning compared to traditional learning. Teachers also can track student's performance using band system in OPTS. Last but not least, OPTS is expected to become an educational tutoring aid for primary school students.

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**APPENDIXES**

## APPENDICES A

### Matrix table

Cross check between User Requirement(R) and Data Flow Diagram(P)

Process(P) User requirement(R)	P1	P2	P3	P4	P5	P6
R1	✓					
R2		✓				
R3	✓					
R4	✓					
R5		✓				
R6				✓		
R7				✓		
R8			✓			
R9				✓		
R10				✓		
R11				✓		
R12				✓		
R13						✓
R14						✓
R15					✓	

KANAGESSWARY A/P SHANMUGANATHAN  
CA10031,  
Universiti Malaysia Pahang,  
Lebuhraya Tun Razak,  
26300 Gambang Kuantan,  
Pahang Darul Makmur.

---

Sir/Madam,  
Sekolah Kebangsaan Setapak Indah,  
Jalan 2/6, Taman Setapak Indah,  
53100 Kuala Lumpur.

4 DISEMBER 2012

Dear Sir/Madam,

Permission to Interview Teacher for Online Personal Tutoring System(OPTS)

I am writing this letter to get permission to interview science teachers from this school to do my final year project.

2. Nowadays, most of the primary schools in Malaysia is still using courseware such as CD during teaching as a learning material. Students also depend on web based learning programme to study the subject that required them to pay. However, not everybody able to pay for the online educational programme such as Score A programme. Besides that, teachers are not participating in the web based learning application as they not play role to update notes and assessment every time.

3. The Online Personal Tutoring System (OPTS) can provide the solution for the above situation. The objective of OPTS is to provide medium for teacher to share learning and teaching material. The OPTS is mainly for science subject at primary school.

4. As requested, I am enclosed the official permission letter from my faculty. I hope teacher will corporate to have a interview session with me regarding my final year project.

Thank you.

Yours faithfully,

*Kana*  
.....  
KANAGESSWARY A/P SHANMUGANATHAN  
CA10031  
UNIVERSITI MALAYSIA PAHANG.

*HAZZAN*  
HAZZAN BIN HUSSAIN  
PK HEM  
SK SETAPAK INDAH  
53100 KUALA LUMPUR

*HAZZAN*

8/5/2013

**TEACHERS SURVEY FORM**

I am required to collect data on Online Personal Tutoring System(OPTS). Please help me to answer the following question. Thank you.

Please tick (√) in the box provided, unless stated or otherwise

**SECTION A:DEMOGRAPHIC**

## Respondent Profile

1. Name:

2. Gender :  Female  Male

3. Age :  24-28  29-33  33-37  38-42  42>

**SECTION B:KNOWLEDGE ABOUT OPTS**

5. Have you ever heard of “Online Tutoring System” term?  YES  NO

6. Based on criteria below, tick the ones relevant to you.

1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
---------------------------	---------------	--------------	------------	---------------------

Question	1	2	3	4	5
The notes suitable for the standard four students					
The pictures suitable for the standard four students					
This system is convenient to use for teachers and students					
Objective and subjective questions for each subtopics are useful					
Easy to track student’s weakness part through subjective questions					
Band system for students					



7. Based on questions below, tick the ones relevant to you.

1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
------------	-------------	----------------	------------	-------------

Question	1	2	3	4	5
Do you think effective learning materials are important for students?					
Do you use any audio or visual media in your teaching section?					
Do you think this learning material is effective to students?					

### **SECTION C: LEARNING SYSTEM**

8. What kind of studying material do you prepare for your student?

- Book
- Audio learning
- Visual learning
- Education Software
- Others:.....

9. What kind of learning materials do you think will be effective to this current generation?

- Book
- Audio learning
- Visual learning
- Education Software
- Others:.....

Thank you for participating in this survey. Please return the questionnaire to us after complete this questionnaire.

**STUDENTS SURVEY FORM**

I am required to collect data on Online Personal Tutoring System(OPTS). Please help me to answer the following question. Thank you.

Please tick (√) in the box provided, unless stated or otherwise

**SECTION A:DEMOGRAPHIC****Respondent Profile**

1. Gender :  Female  Male
2. Class :  A  B  C  D  E

**SECTION B:KNOWLEDGE ABOUT OPTS**

3. Have you been used before this?  
 SKOR A  
 Time4learning  
 Tutor tv
4. How many hours do you spend in books ?  
 2 hours  3 hours  4 hours
5. How many hours do you spend in computer?  
 2 hours  3 hours  4 hours
6. How many hours do you spend in tv?  
 2 hours  3 hours  4 hours
7. Do you have computer/laptop at your home?  
 Yes  No
8. Do you have internet access at your home?  
 Yes  No

9. On a rate of 1 - 3 – How would you rate each criteria (1 being “like less” and 3 being “like most”)

<b>What you like in Online Personal Tutoring System</b>	<b>Rate</b>		
Registration	1	2	3
Notes	1	2	3
Exercises	1	2	3
Band System	1	2	3
Pictures about topic	1	2	3
Marking by teachers	1	2	3

### **SECTION C:EFFICIENT OF SYSTEM**

10. Do you like this system?

Yes  No

11. Do you think this system can be easily use by students?

Yes  No

12. Did you understand all the topic with the notes given?

Yes  No

13. What you think about the question that provided in system?

Difficult

Medium

Easy

Thank you for participating in this survey. Please return the questionnaire to us after complete this questionnaire.

## Teacher's survey result

**SECTION B:KNOWLEDGE ABOUT OPTS**

5. Have you ever heard of "Online Tutoring System" term?

Yes	100%
No	0

6. Based on criteria below, tick the ones relevant to you.

1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
------------------------	---------------	--------------	------------	---------------------

Question	1(%)	2(%)	3(%)	4(%)	5(%)
The notes suitable for the standard four students	0	0	0	50	50
The pictures suitable for the standard four students	0	0	50	50	0
This system is convenient to use for teachers and students	0	0	0	0	100
Objective and subjective questions for each subtopics are useful	0	0	0	0	100
Easy to track student's weakness part through subjective questions	0	0	0	0	100
Band system for students	0	0	0	0	100

7. Based on questions below, tick the ones relevant to you.

1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
------------	-------------	----------------	------------	-------------

Question	1(%)	2(%)	3(%)	4(%)	5(%)
Do you think effective learning materials are important for students?	0	0	0	0	100
Do you use any audio or visual media in your teaching section?	0	0	50	50	0
Do you think this learning material is effective to students?	0	0	0	0	100

**SECTION C:LEARNING SYSTEM**

8. What kind of studying material do you prepare for your student?

Books	100%
Audio learning	50%
Visual learning	100%
Education Courseware	100%

Others	0
--------	---

9. What kind of learning materials do you think will be effective to this current generation?

Books	100%
Audio learning	50%
Visual learning	100%
Education Courseware	100%
Others	0

Student's survey result

### **SECTION B: KNOWLEDGE ABOUT OPTS**

3. Have you been used before this?

SKOR A	60%
Time4learning	10%
Tutor tv	30%

4. How many hours do you spend in books ?

2 hours	10%
3 hours	20%
4 hours	70%

5. How many hours do you spend in computer?

2 hours	10%
3 hours	10%
4 hours	80%

6. How many hours do you spend in tv?

2 hours	30%
3 hours	10%
4 hours	60%

7. Do you have computer/laptop at your home?

Yes	100%
No	0

8. Do you have internet access at your home?

Yes	80%
No	20%

9. On a rate of 1 - 3 – How would you rate each criteria (1 being “like less” and 3 being “like most”)

<b>What you like in Online Personal Tutoring System</b>	<b>Rate(%)</b>		
Registration	1	2(20)	3(80)
Notes	1	2	3(100)
Exercises	1	2(20)	3(80)
Band system	1	2(70)	3(30)
Pictures about topic	1	2(30)	3(70)
Marking by teachers	1	2(80)	3(20)

### **SECTION C:EFFICIENT OF SYSTEM**

9. Do you like this system?

Yes	80%
No	20%

10. Do you think this system can be easily use by students?

Yes	80%
No	20%

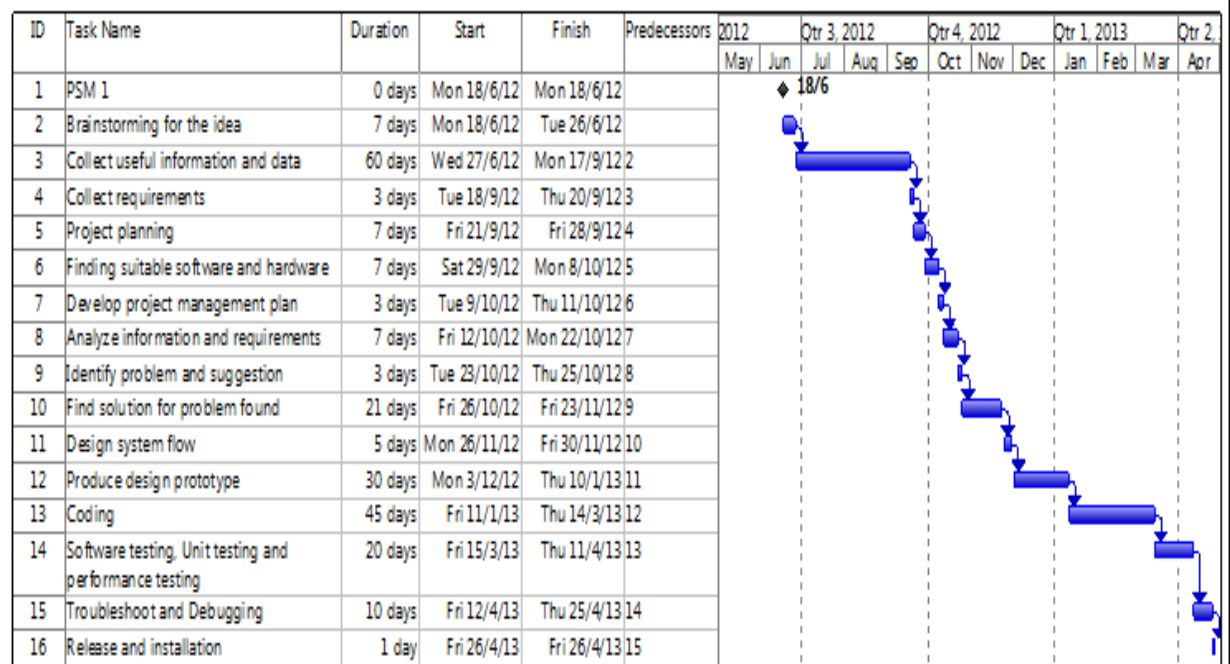
11. Did you understand all the topic with the notes given?

Yes	80%
No	20%

12. What you think about the question that provided in system?

Difficult	10%
Medium	70%
Easy	20%

## Gantt Chart



## Plagiarism Check

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