In this chapter, it will briefly discuss about the methodologies used during the development of Mobile Application on Learning Cardiopulmonary resuscitation (L-CPR). This chapter will also discuss about software and hardware specification of the project development.

3.1 Introduction

In this chapter, the steps in the development phase of Mobile Application on L-CPR will be discussed. Rapid Application Development (RAD) is used for this project. Justification on this chosen methodology will be discussed on next topic. This chapter also discussed briefly about the hardware and software requirements of the project.

3.2 Project Methodology

This project applied RAD for project development. RAD is one type of incremental model. The functions or component is being modeled and developed in parallel. The development will be time boxed and delivered into a working prototype.
This can help the user or customer to be able to easily give their opinion or feedback on the project requirements ("What is RAD model- advantages, disadvantages and when to use it?").

RAD is based on the idea of reusing codes and tools from previous development. For RAD, instead of create own unique coding, the developer will use other software or tools and also other graphical user interface (GUI) to create a system. Beside RAD also rely on reusing the available code and fit in into the intended system. Hence it development time will be shorter (“Rapid Application Development”, 2008).

The development cycle of RAD also enlists the help of the users. The user will give feedback from time to time to ensure the system being developed could match preferences. A good user feedback can be ensure since user ideas will be acknowledged. Besides that, RAD also reduces stress in creating GUI, coding and structure. This is because it have a remote possibility of being trashed by users (“Rapid Application Development”, 2008).

3.3 Justification of Chosen Methodology

RAD is one type SDLC model. It is a model that is suitable for small project which need to be finish on short period of time. Mobile Application on L-CPR is about creating a mobile application for teaching CPR. It is not consider as a large project as it complexity is not that high. Besides that, this project also does not require some expensive and high technology gadget which will cause a high risk in the project.

RAD is a better development model as compared to the traditional SDLC model. The traditional SDLC model follows a rigid process model which more emphasize on requirement analysis and gathering before the coding process start. The customer has to make a confirm requirement which usually cannot be change at later time. Due to this, user will not get the feel of the products as there is no working prototype for a long period of time (“SDLC - RAD Model”). In term of this problem, RAD is more flexible. There will be a prototype being build to allow user see the progress of the project.
Sometime user might feel that their original requirement is not suitable after seeing the prototype. In this case, they can give feedback to developer. Developer can go back to the design phase all update any requirement in the design phase of RAD. This make RAD is flexible as it can always swap between the construction phase and design phase in order to satisfy user requirement.

Furthermore, the development time in RAD is faster. This is due to the prototype is being created during the project development. All the prototype that being build during the project development is kept for future use. If a component is being picked from previous prototype and it is tested before, the testing time can be saved as it no need to be tested for second time. Hence, the reusability of the component can help in reduce the development time. In relation to this, the cost for development will also reduce ("The Advantages and Disadvantages of RAD Software Development").

In conclusion, all the above is the justification of choosing RAD as the SDLC model for this project.

3.4 The Stages of Chosen Methodology

RAD consists of 4 phases which are requirements planning, user design, construction and cutover. There is a multipath between user design phase and construction phase. This meant that we can always swap between user design and construction phase.