A mobile application of Augmented Reality for Periodic Table with Speech Recognition

INVENTOR: TAN CHEE SEN
FACULTY: FACULTY OF COMPUTING (FK)
UNIVERSITY: UNIVERSITI MALAYSIA PAHANG
EMAIL: t.c.sen1997@gmail.com
CO-INVENTORS: DR. NOORLIN MOHD ALI

Abstract

A periodic table of elements is a group of various elements arranged according to their various chemical properties which can provides some valuable information. Augmented Reality can play a role in making the learning process more interesting by providing some visualization and interaction with the periodic table.

Introduction

This work presents the prototype of an Augmented Reality application designed for periodic table of elements to improve the learning experience of students studying chemistry subjects. Augmented Reality is one of the technologies that have the ability to visualize information which provide new and interesting way of learning.

Problem Statement

- Challenge faced by chemistry student where textbook learning is boring and not interesting.
- Lack of interaction between learning materials and students.
- Lack of free, small and effective application in the market for learning periodic table.

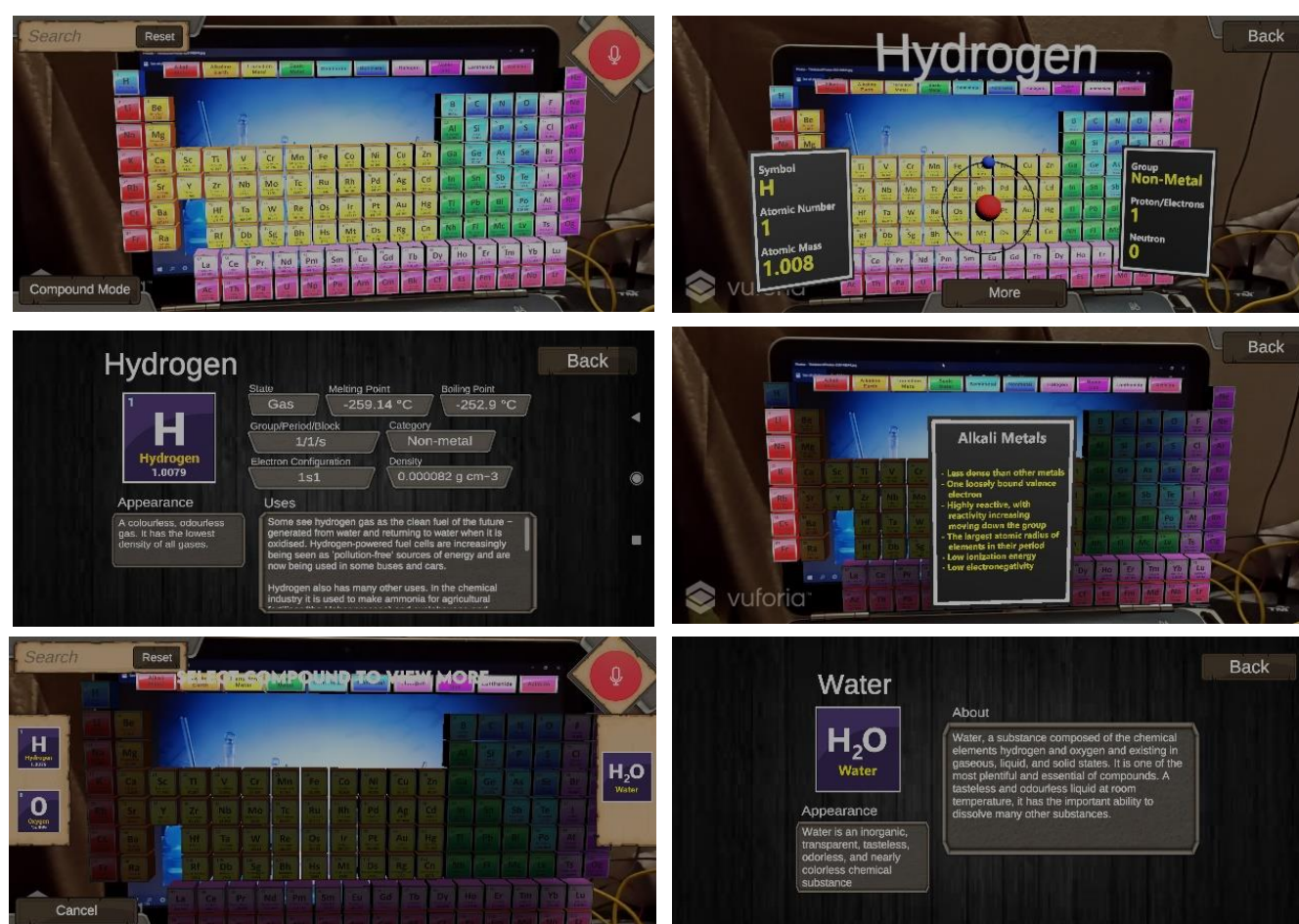## Objective

- To analyse AR technology in mobile application.
- To design and develop a mobile based periodic table with AR and speech
- recognition.
- To evaluate the application with user acceptance test.

Methodology

ADDIE MODEL

Analysis → Design → Development → Implementation → Evaluation
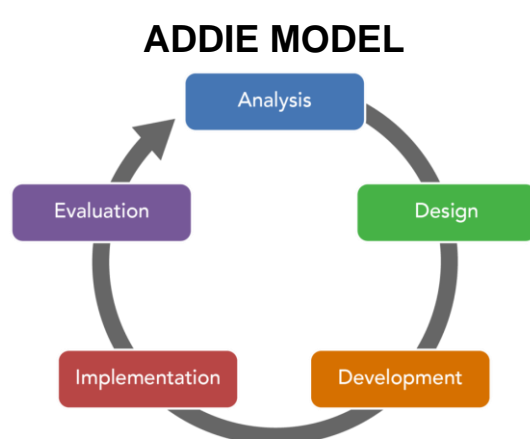
Scope

- To develop for android devices only.
- The target user will be focus on form 4 student studying chemistry subject.
- The main topic that will be focus on is Chapter 4 about periodic table of elements from form 4 textbook.

Product Image/Results

Conclusion

Augmented Reality based Periodic Table is developed as a tool to help student improve their learning experiences. This periodic table application is successfully developed with augmented reality technology with speech recognition feature implemented.