**Executive Summary**

This project provides information about our proposed idea, design and implementation approach for developing an educational android game. The game will be based on concept of saving electricity through which we are targeting children between the age group of 4-6 years to spread awareness amongst them. We found that, there are hardly any educational game available in play store for young children that can educate them about the importance of saving electricity. Therefore, educating the children on electricity consumption is an added value of our project. To develop the game, we will be using spiral model as SDLC (Software Development Life Cycle), since spiral model is very flexible and commonly used for game development. Our project will have a positive impact on parents, electricity companies, government and schools in form of stake holders. It will be beneficial for environment as well because most of the countries use coal and oil to produce electricity. By implementing simple interface and adding multiple functionalities, we believe that through our educational game, children will become aware and responsible at very young age.

**Implementation and Testing**

**Functionalities of Game**

Although implementing all the functionalities in our game within the limited time frame was a big challenge for us, but we made sure that we successfully implement all of the following proposed functionalities:

* **2D Style:**

We have developed our game in 2d style as it consists of good art work that will suit the children. Also, 2d games runs smoothly on android phones.

* **Audio and visual support:**

We have included audio and visual support throughout the game.

* **Animation/Effects:**

Since our game is targeting very young children between the age group of 4-6 years, hence animation support is the key functionality that we have successfully some implemented in our game. Animations

* **Voice feedback:**

Voice feedback has been included to appreciate the children when they choose correct options. Similarly, it will ask them to choose a correct option if they touch a wrong object.

* **Interactive objects:**

As we have to gather the attention of children when the play the game, inclusion of interactive objects was one of the main factors. We have included both electrical and non-electrical interactive objects.

* **Multiple objects:**

To educate children about different objects that consumes electricity, we used several electrical objects such as: television, electric lamp, table fan, ceiling fan, AC, heater etc

* **Simple interface:**

We have kept the interface of our game very simple so that the children find it easy when they play. We have included progress bar and 3 strike process in the game. If a player selects correct option, progress bar will get filled and next level will appear. If a player selects incorrect option, then a cross mark will be highlighted in strike bar. With three incorrect attempts the game will end.

* **Failure Screen**

Failure screen has been added to restart the level which will appear after three wrong attempts.

* **Reward system/Trophy room:**

The purpose behind including the reward system is to motivate children and keep them engaged in the game. This will help us to successfully convey our message as children will be keen to get more rewards by playing and choosing correct options. When a player receive reward, it will get added in the trophy room. A player can visit the trophy room and check the number of trophies they have achieved.

* **Multiple levels:**

Initially we were targeting to implement at least 4 levels but due to time constraint we were only able to include 2 levels with unique scenarios. In each level we have included different objects.

* **END Game**

End game screen will appear after successful completion of all levels.

**Testing**