**5 – Behavioral Model and Decription**

This section presents a description of the behavior of the software.

**5.1– Description for Software Behavior**

When the game starts with a single click on game icon the user will see main menu page. On the main menu page user will see four options.

1. **Start**
2. **Help**
3. **Credits**
4. **Quit**
5. **Select player**

After clicking the space bar button character will start running the user will be able to move the character left and right to dodge the obstacles with the help of right, left arrow keys or with A-D keys. user can also make the character jump through up arrow key or W key and can also make the character collect coins and diamonds to increase the score. If the character will be able to reach to the end point of the first level second level will be started automatically and the game will keep going until the character hit an obstacle. when the game will end user will be able to see final score and number of coins collected. the user can quit any where in the game by clicking on ESC key and can also pause game by clicking on the pause button.

**5.2-State Transition Diagram**

Select player

credits

start

quit

Main menu

Pause game

Quit using device

functionality

Quit using device functionality

help

**6 – Planning**

In this part of the document, the structure of the team responsible for the project, the basic schedule, and the process model will be presented.

**6.1- Team Structure**

The project team is group of 4 people, and each group member has the same responsibility on the project. Iqra Farooq Malik is the coordinator and the contact person for the group, who synchronizes the meetings and work plan Since the team is a small group of people and the members know each other, all the decisions are given after meetings and discussions. The labor division is made evenly and decided in weekly meetings. Beside these meetings the members are in contact with each other all the time which will ease the project development and handling faced problems. Moreover, group has contact with the advisor assistant, by having meetings every week. All the members of the group has the same level of knowledge about the project. Therefore, to get the necessary knowledge sooner, the research areas about the requirement of the project are divided into 4 different parts and assigned to each member, and the useful information is shared with the other members

During the development period, according to the needs of the project, members will have some specific tasks decided by the group, but for now mainly our members and the roles are:

Iqra Farooq Malik – Researcher, Software Developer, Designer,coordinator

Tehreem sultan - Researcher, Software Developer, Designer

Malik Muhammad Abdullah Hayat - Researcher, Software Developer, Designer

Ibrahim - Researcher, Software Developer, Tester

**6.2– Estimation**

|  |  |
| --- | --- |
| **Estimation Date** | **Task** |
| 20.11.2019 | Detailed requirments |
| 25.11.2019 | Design(modeling of basic things) |
| 5.12.2019 | implementation |
| 15.12.2019 | Testing |
| 17.12.2019 | Deployment |
| 20.12.2019 | Maintenance |

**6.3-Process Model**

We are going to use the Waterfall model in the development phase of the project. By following this model the software development activity is divided into different phases and each phase consists of a series of tasks and has different objectives. Development of one phase will starts only when the previous phase is complete.