# **Introduction**

The project ‘***Cars***’ is a desktop mini-game project. It is a desktop game application built in java focusing on the multitasking capacity of a player. It is a multitasking brain game which tests individual’s personal brain capacity to focus on two tasks at the same time.

The game consists of two cars; red and blue. The player controls these two cars at the same time. Each car has its own separate track with two lanes for each track. Cars can change the lanes of a track through separate keystrokes for each car. Both the cars need to collect all the circles and also avoid the squares on the track. In order to play the game, a player needs to login using simple username and password. New players to the game must register through registration form. Each player’s profile is created after registration to the game. Profile covers some player’s personal details with username and password. Player’s profile also includes personal high score. Also, a player can see the game’s high score scored by other players in the game. These profiles and scores are stored in a database choosing any one database platform. The database is connected to the application at run-time. Though, ***Cars*** seems as a simple game but it is hard to play than expectations.

In today’s competitive world, people are busy with their time schedules. Busy day-to-day routines are making people stressed out. Repeating schedules and work is very frustrating to human minds. Our brain and mind need refreshments from time to time. In the solution to this, games have been popular in the present world. Especially, different types of brain games have been developed that facilitates in increasing brain or mind capacity.

Brain games has had great advantages to many gamers and non-gamers today. It has been solution to many busy lives. It’s a kind of brain exercise. Also, it is a short-time break for the routine day-to-day schedules. This helps a player to be energetic and fresh mentally which increases one’s brain capacity to concentrate in his/her daily tasks. The game ‘***Cars***’ enables a player’s mind to be involved in multiple tasks.***Cars*** focuses in enhancing the multitasking ability of a human brain. The game acts as a brain refresher and activates our mind with new energy to focus on our daily tasks. Since, a player’s brain is involved heavily, the game is also addictive in nature. Thus, with all these features, the game is best suitable to be chosen for the project.

This project can help in enhancing programming skills for developing desktop based applications. Various new techniques in programming can be explored. It has provided an opportunity to develop creativity in building addictive mini-games. Different types of brain refreshing games can be built in future which tests user’s brain capacity like multitasking, concentrating, creativity and many more. I expect ***Cars*** project aids in developing these features.

## **Aims**

The aim of this project is: -

* To build desktop game application which tests the multitasking ability of a human brain.

## **Objectives**

In order to achieve the aim of ***Cars*** project, several goals are prepared. These goals refer to the objectives of this project. Objectives of the ***Cars*** project are listed below: -

* To analyze and collect requirements for the game
* To decide on level of difficulty
* To produce final requirement specification
* To design static and dynamic model of the application
* To perform coding and develop the application designed
* To perform testing and maintenance
* To document the application development

## **Main Features**

Cars project will have the following list of features: -

* Player registration and login
* Update player profile
* Personal high score and overall game high score
* Main game panel
* Keystrokes to control cars
* Scoreboard

## **Development Methods**

# **Project Plan**

## **Work Breakdown Structure (WBS) and Time Estimate**

|  |  |  |
| --- | --- | --- |
| **WBS #** | **Task Name** | **Days** |
| 0 | **Cars Project** | 79 |
| 1  1.1  1.2  1.3 | **Project Management**  Scoping  Planning  Monitoring and Control | 13  6  4  3 |
| 2  2.1  2.2  2.3 | **Analysis Specification**  Requirements  Use Case  Architecture | 10  3  4  3 |
| 3  3.1  3.2  3.3 | **Design Specification**  Structural Model  Behavioral Model  UI Design | 22  8  8  6 |
| 4 | **Implementation** | 22 |
| 5 | **Testing and Maintenance** | 7 |
| 6  6.1  6.2 | **Reporting**  User Manual  Final Report | 4  2  2 |

Table: Work Breakdown Structure with Time Estimate

## **Milestones**

|  |  |
| --- | --- |
| **Milestone** | **Date** |
| Project Proposal | April 9, 2017 |
| Analysis Specification | April 23, 2017 |
| Design Specification | May 24, 2017 |
| Final Report | July 11, 2017 |

Table: Milestones

## **Schedule**

# **Risk Management**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Risk | Likelihood | Consequences | Impact | Action |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# **Configuration Management**

# **Conclusion**

# **References**