**Data Structures Group Project Group Report**

**Group Members**

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| --- | --- |
| **Name** | **ID Number** |
| Laurell Seville | 1800746 |
| Marvin Arnett | 1701403 |
| Donrick Jones | 1500745 |

**Details of each member’s contribution**

**Group Report:** Laurell Seville

**Application User Manual:** Laurell Seville

**Code**

Gameplay

Sections 1-3 : Laurell

Sections 4-5: Marvin,Laurell

Sections 6-7: Donrick, Laurell

**Classes**

Player Class, Player linked list, Round list: Donrick

Round Class, Category Class, Card Class, Wheel circular list: Laurell Seville

Wheel circular list, Guessed letters Queue, Card Class: Marvin

**Data Structures Used**

**Player List**: A circular linked list was used because as the round progresses the players are switched in an order of 1 to 2 to 3 to 1, a circular order.

**Round List:** A singly linked list was used as the rounds in the game progress in the order of 1 to 2 to 3, then it ends. The list has a defined end and doesn’t continue endlessly.

**Card List**: A circular linked list was used as this is meant to emulate an actual wheel where as the cards are progressed in an endless manner, in a clockwise motion

**Guessed Letters:** A queue was used as the only thing that was needed was a way to identify all letters guessed there is need to progress this list.

**Worst case Asymptotic Analysis of the key**

**features/methods used in the system**

BIG O = n(n) + n (all constants have already been removed)

= n^2

BIG O = O(n^2) = Quadratic