**Class Card**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -This finds Suit & Rank of a card | DiscardPile |
| -Used with both Rummy & Switch Games | GameUI |
|  | DrawPile |
|  | Hand |

<<Dependencies: None>>

**Class Hand**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -This used to insert and discard card on hand while playing the game | Card |

<<Dependencies: RummyGame & SwitchGame>>

**Class DiscardPile**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -This support to access card pile and use it while playing the Rummy or Switch game | Card |
| -When there is no any card to draw, Discard Pile support to use all the discard cards as DrawPile |  |

<<Dependencies: RummyGame & SwitchGame >>

**Class DrawPile**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| Start the game with shuffling the cards | Card |
| Draw the first card after dealing the cards among the players on both Rummy & Switch game |  |

<<Dependencies: RummyGame & SwitchGame >>

**Class GameUI**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -This is the graphical user interface of the both games | Game Server |
| -Support to start new games, pause game & exit | ClientPlayer |
| -Players can switch between games using buttons which represent the game (Rummy or Switch) | Card |
| -Contains all the components that used to play the games using mouse clicks or drag & drop |  |
| -Display the game results of each game when the game is over |  |

<<Dependencies: RummyGame & SwitchGame >>

**Class SwitchGame**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -Main controller class of Switch card game | Message |
| -Start the game from dealing and continue the game with players |  |
| -Control the flow of game interacting with Player |  |
| -Create rules & give instructions according to the game |  |

<<Dependencies: None >>

**Class RummyGame**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -Main controller class of Rummy card game | Message |
| -Start the game from dealing and continue the game with players |  |
| -Control the flow of game interacting with Player |  |
| -Create rules & give instructions according to the game |  |

<<Dependencies: None >>

**Class Message**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -This class manage all the communication between game server & players | SwitchGame  RummyGame |
| -Maintain the connection for each player & support to send messages separately | Client  GameServer |

<<Dependencies: ConnectionToClient >>

**Class ConnectionToClient**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -Create new connection for players & maintain IDs of each player | ClientPlayer |
| -Support to Message class by passing incoming and outgoing messages |  |

<<Dependencies: GameServer >>

**Class ClientPlayer**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -Manage Players of both Rummy & Switch games | ConnectionToClient  GameUI |
| -Store the game host and use it to connect to the game server |  |
| -Maintain Access up to 6 players to play the game |  |

<<Dependencies: None >>

**Class GameServer**

|  |  |
| --- | --- |
| **Responsibilities** | **Collaborators** |
| -Use web sockets & ports to work efficiently | Message |
| -Deal with the each player connections and maintain player IDs |  |
| -Send and receive all the messages to & from the players |  |
| -Generate game results |  |
| -Support to Shutdown & Restart when needed |  |

<<Dependencies: None >>