**Requirement 3**

**Player**

C:\Users\40173513\Downloads\Player Diagram.png

C:\Users\40173513\Downloads\Agent Diagram.png**Mobile Agent approach**

The players will be connected in a ring topology, in which, a process (turnManager) is passed around each player. The player who is holding the agent is allowed to make a move, as it is their turn. Once a pair is selected, the player sends the selected cards to the turnManager process which in turn sends these cards to the controller through a back channel allowing the controller to update each player to the game status. Once this has been done the agent moves to the next player in line.

This approach will require the use of the mobile agent process; the mobile agent extends from the csProcess and serializable interfaces. As part of the agent process, there will need to be internal channels which are set up once the agent has been moved to a new process.

The data type used within the given implementation, namely ClaimPairs will be reused to update the flipped cards to all other players.

This design may be altered in the future depending on the validity of implementation or if a more suitable approach is discovered.