Group 3 Deliverable 3

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SYST17796 Fundamentals of Software Design and Development
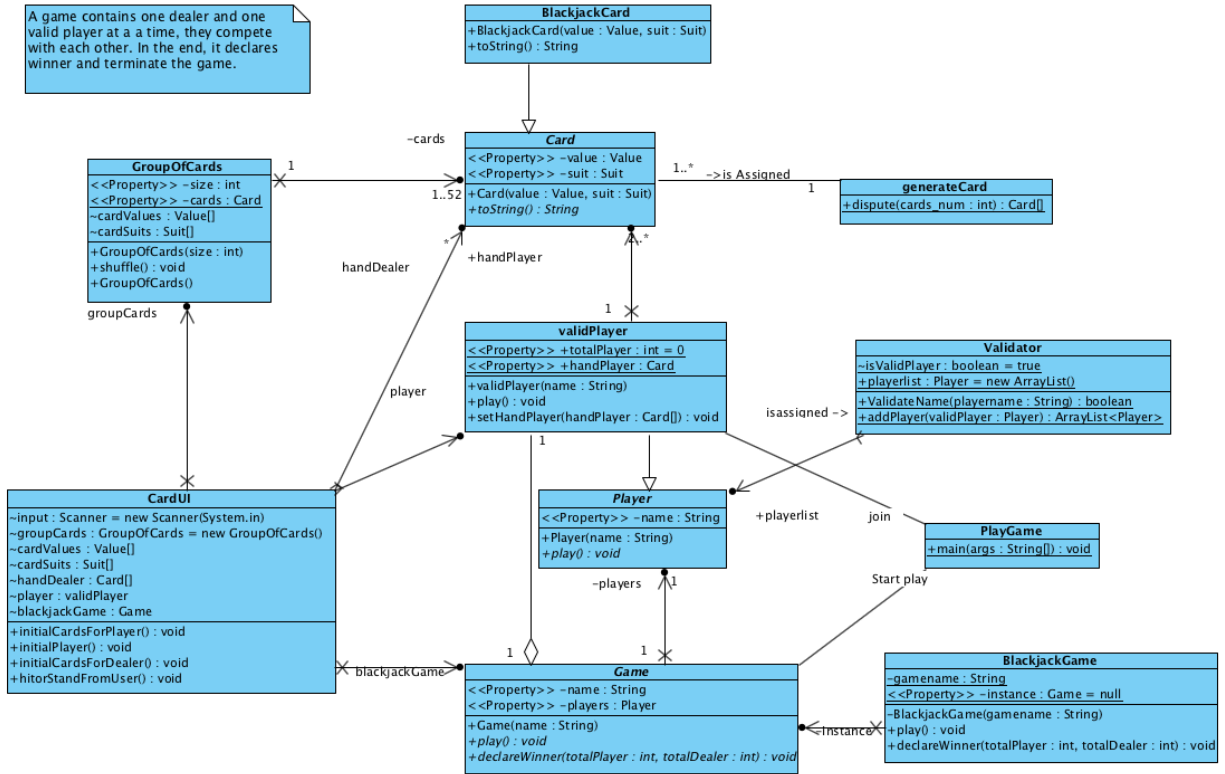
Professor Paul Bonenfant

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Updated UML Class Diagram

A game contains one dealer and one valid player at a a time, they compete with each other. In the end, it declares winner and terminate the game.

BlackjackCard
+BlackjackCard(value : Value, suit : Suit)
+toString() : String

GroupOfCards
<<Property>> –size : int
<<Property>> –cards : Card
~cardValues : Value[]
~cardSuits : Suit[]
+GroupOfCards(size : int)
+shuffle() : void
+GroupOfCards()

–cards

Card
<<Property>> –value : Value
<<Property>> –suit : Suit
+Card(value : Value, suit : Suit)
+toString() : String

1..* ->is Assigned   1

generateCard
+dispute(cards_num : int) : Card[]

1   1..52

groupCards

handDealer   +handPlayer

player

1

validPlayer
<<Property>> +totalPlayer : int = 0
<<Property>> +handPlayer : Card
+validPlayer(name : String)
+play() : void
+setHandPlayer(handPlayer : Card[]) : void

isassigned ->

Validator
~isValidPlayer : boolean = true
+playerlist : Player = new ArrayList()
+ValidateName(playername : String) : boolean
+addPlayer(validPlayer : Player) : ArrayList<Player>

1

CardUI
~input : Scanner = new Scanner(System.in)
~groupCards : GroupOfCards = new GroupOfCards()
~cardValues : Value[]
~cardSuits : Suit[]
~handDealer : Card[]
~player : validPlayer
~blackjackGame : Game
+initialCardsForPlayer() : void
+initialPlayer() : void
+initialCardsForDealer() : void
+hitorStandFromUser() : void

Player
<<Property>> –name : String
+Player(name : String)
+play() : void

+playerlist   join

PlayGame
+main(args : String[]) : void

Start play

blackjackGame

–players   1

1   1

Game
<<Property>> –name : String
<<Property>> –players : Player
+Game(name : String)
+play() : void
+declareWinner(totalPlayer : int, totalDealer : int) : void

Instance

BlackjackGame
–gamename : String
<<Property>> –instance : Game = null
–BlackjackGame(gamename : String)
+play() : void
+declareWinner(totalPlayer : int, totalDealer : int) : void

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Git Repository Code Link

https://github.com/Wei-HsiangChang/Group3_Cardgame