DeckDevs: Derivable 3

Divyadeep Maan

Anshul Alpesh Patel

Sane Sunny

Mohemmed Faaiz Shaikh

Sheridan College

Sivagama Srinivasan

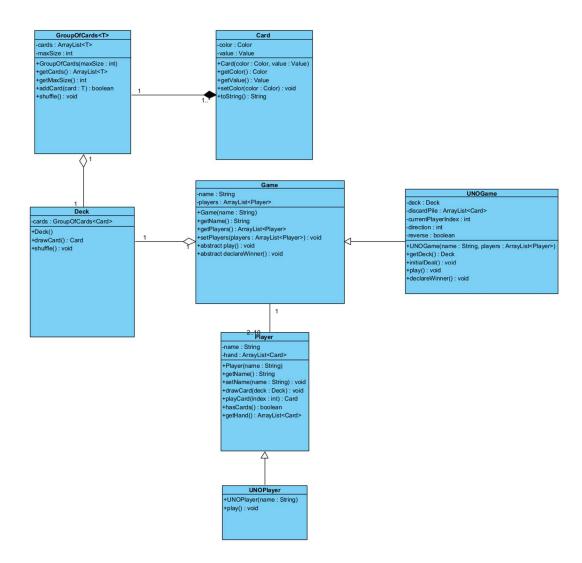SYST17796: Fundamentals of Software Design and Development

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UML Class Diagram Updated

GroupOfCards<T>
-cards : ArrayList<T>
-maxSize : int
+GroupOfCards(maxSize : int)
+getCards() : ArrayList<T>
+getMaxSize() : int
+addCard(card : T) : boolean
+shuffle() : void

Card
-color : Color
-value : Value
+Card(color : Color, value : Value)
+getColor() : Color
+getValue() : Value
+setColor(color : Color) : void
+toString() : String

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Deck
-cards : GroupOfCards<Card>
+Deck()
+drawCard() : Card
+shuffle() : void

1

Game
-name : String
-players : ArrayList<Player>
+Game(name : String)
+getName() : String
+getPlayers() : ArrayList<Player>
+setPlayers(players : ArrayList<Player>) : void
+abstract play() : void
+abstract declareWinner() : void

UNOGame
-deck : Deck
-discardPile : ArrayList<Card>
-currentPlayerIndex : int
-direction : int
-reverse : boolean
+UNOGame(name : String, players : ArrayList<Player>)
+getDeck() : Deck
+initialDeal() : void
+play() : void
+declareWinner() : void

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2..10

Player
-name : String
-hand : ArrayList<Card>
+Player(name : String)
+getName() : String
+setName(name : String) : void
+drawCard(deck : Deck) : void
+playCard(index : int) : Card
+hasCards() : boolean
+getHand() : ArrayList<Card>

UNOPlayer
+UNOPlayer(name : String)
+play() : void

Git Repository: https://github.com/pate5080/DeckDevs