Assignment 4 – Blackjack

CRC cards - Blackjack

Game	
Responsibility	Collaboration
- turnCounter - check if finished - Create Deck and run Game - notify observers of changes - asking player if wanting to continue	Board PlayerContext UI

Enum Rank	
Responsibility	Collaboration
ACE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT, NINE, TEN, JACK, QUEEN, KING	Card Abstract Agent

Enum Suit	
Responsibility	Collaboration
SPADES, HEARTS, DIAMONDS, CLUBS	Card

Enum SuitSymbol	
Responsibility	Collaboration
"♠"," ♦", "♥", "♣"	Card

Deck	
Responsibility	Collaboration
-Creates one card per Combination of Rank and Suit (52 cards) -shuffles cards implements function use **Iterator Pattern**	Card Enum Rank Enum Suit Game

Card	
Responsibility	Collaboration
- Stores Rand and Suit - Returns String representation of Rank and Suit	Enum Rank Enum Suit

Abstract Agent	
Responsibility	Collaboration
-keeps track of cards in hand -keeps track of hand value -abstract hitOrStay function	Dealer Player

Dealer extends Abstract Agent	
Responsibility	Collaboration
-hitOrStay: if hand value <17, hit, otherwise stay	Game Deck AbstractAgent

Player extends Abstract Agent	
Responsibility	Collaboration
-hitOrStay: Based on Terminal Input -keeps track of available money -Money bet	Game Deck AbstractAgent

UI	
Responsibility	Collaboration
-welcome prompt -handle input & outputs **[Singleton Pattern for UI-instance]**	Game

Enum Call	
Responsibility	Collaboration
HIT, STAY	Game UI AbstractAgent Player Dealer

<Iterator>	
Responsibility	Collaboration
Iterate over cards	Deck

UML Diagram

https://lucid.app/lucidchart/4b8b25eb-20be-4c26-acf8-3bbe4bbd21b4/edit?invitationId=inv_d6f82b4b-7286-485c-a5af-074f03709751