VARIABLES:

* Player\_list = LIST: [player number, balance, score, bet]
* Players = INT: number of players
* Deck = LIST: 2d list of cards
* Cards\_dealt = LIST: 2d list of cards that have been dealt. Only used in first round to assign values for the cards they get.
* Dealer\_score = INT: initial dealer score with first 2 cards
* Dealer\_score\_2 = INT: final dealer score

MENU MODULE:

* Menu – greeting, would you like to see the rules
* Blackjack\_rules – print rules
* Get\_players – returns number of players and returns to player list for player number
* Get\_balance – enter starting balance for players – returns to player list
* Place\_bet – user enters bet and subtracts from balance – returns to player list
* Clear\_players – will clear player score for next round

DEAL MODULE:

* Fill\_deck – Fills full deck
* Shuffle – shuffles full deck
* Deal\_cards: First round of 2 cards each.
  + Checks deck length, if cards less then players \* 2, calls fill deck and shuffle.
* Assign\_cards: assigns cards to players as they were dealt.
* Card\_values: gives players total points before starting round
* Dealer\_cards: gets dealer score for first 2 cards dealt

ROUNDS MODULE:

* Round: check for 21, send to play
* Play: gives player score and asks to hit or stay
* Round\_card\_values: if player hits, adds score to total.

DEALER MODULE:

* Dealer\_hand: gets dealer score and hits anything under 17
* Card\_values: assigns values to dealers cards and adds to dealer score

WINNER MODULE:

* Get\_player\_points: prints players final points
* Get\_winner: compares players to dealer score and prints winners.
* Update\_balance\_tie: updated player balance for tie
* Update\_balance\_win: updates player balance for win
* Zero\_balance: checks players balance, if it is 0 it prints you are out of the game
* Update\_player\_list: removes all players with balance 0

MAIN:

Executes all modules for the game.

GAMEPLAY:

Menu: welcome, print rules yes or no

Menu: get number of players

Menu: get balance (all players will start with the same balance)

Menu: Create player list (player#, balance, score)

Menu: Place bets, update balance in player list

\*Deal: Fill deck

Deal: shuffle deck

Deal: deal cards, create cards dealt list

Deal: assign cards dealt to players and get score

Rounds: Play round for each player, hit or stay. Get final score.

Deal: get dealer initial cards dealt.

Dealer: get dealer initial score

Dealer: hit on lower then 17 and get dealer final score

Winner: print player final points

Winner: compare points and display winners.

Play again? If yes, go to deal: fill deck\*