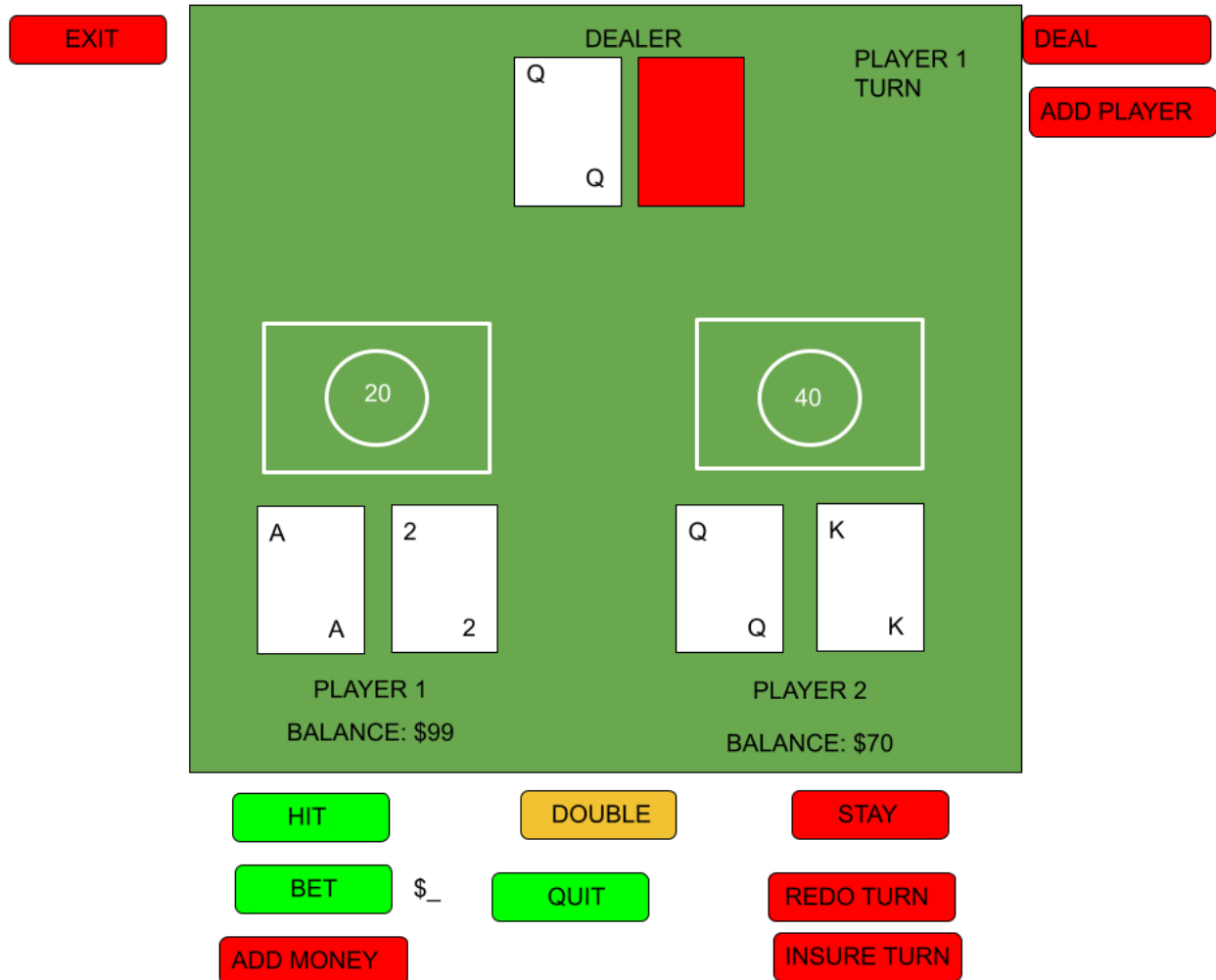


Kent Waxman, Dawson Voth

## PROTOTYPE:



## USER FEEDBACK:

- Feedback: Gabe Arias
  - Hit, Double, Stay Buttons
    - Great location
    - Good colors
    - Other buttons need to follow this
  - Deal Button
    - Cards should have faces on them
    - Buttons that can't be used should be different
  - Start Game
    - Buttons are in weird places
    - Graphic view is very clean + informative

- Need to make buttons more organized + color coordinated
- Need a total card count button (for ace for example)
- Need to know when to quit
- Hit, Double, Stay Buttons - great location easy for use

## **GAME FLOW:**

- ADD PLAYER
  - Adds a new player to the view
  - Can only add inbetween deals
- DEAL
  - Starts the round by prompting each player to bet or quit
  - If they quit it moves to the next player or stops if no players
  - If they want bet they will be able to buy a redo turn or insure turn before they place their bet, then once they bet it moves to next player
  - Once all players bets are in, it rotates back to the first player to hit, double(if they have enough money), or stay. This also goes to each player.
  - If a player busts they can use a redo turn.
  - Then the dealer goes and hits until 17 or higher.
  - Once the dealer is finished money is distributed accordingly
  - If a player lost but bought insurance they get their money back
  - The round is now over
- BET
  - Takes money out of balance and put it on table in front of the player
  - Not available to players with no money
  - Moves to next player up
- QUIT
  - Pays out player
  - Removes player and goes to next player
- REDO TURN
  - Adds power up for the player for this turn
  - Then blocks it out so they can't buy it twice
- INSURE TURN
  - Adds power up for the player for this turn
  - Then blocks it out so they can't buy it twice
- HIT
  - Deals the current player another card
  - If a player has a redo gives them an option to use it
  - If player busts and has a redo turn it automatically uses it
  - If player busts and doesn't have a redo turn goes to next player
  - If they don't bust they have the option to hit again or stay
  - Then goes to next player
- DOUBLE
  - A player can double down on their first hit but they don't get another hit after that no matter what, moves to the next player

- STAY
  - Moves to the next player
- ADD MONEY
  - When a player is up they always have the option to add more money to their account
- EXIT
  - Ends game board

**CLASSES(Not including dialog classes and graphic items):**

```
Struct Chip{
    QColor color_;
    Int value_;
}
```

Enum class Suit (hearts, diamonds, spade, club)

```
Struct Card{
    Int card_value_;
    Suit suit_;
    Int deck_;
    Bool dealt_;
}
```

```
Class Player{
    Private:
        String name_;
        Int money_;
        vector<Card> cards_;
    Public:
        Int get_money();
        Void add_money(int m);
        Void remove_money(int m);
        vector<Card> get_cards();
        Void add_card(Card c);
        Void clear_cards();
}
```

```
Class Board{
    Private:
        vector<Card> dealers_cards_;
        Int num_of_decks_;
        vector<Card> cards_;
        Card top_card_;
        Int count_;
```

```
    Public:  
        vector<Card> get_dealers_cards();  
        Void clear_dealer_cards();  
        vector<Card> get_cards();  
        Card deal_next_card();  
        Void shuffle_cards();  
        Int get_count();  
}
```

```
Class Game{  
    Private:  
        vector<Player*> players_;  
        Board *board_;  
    Public:  
        vector<Player*> get_players();  
        Void add_player(Player* p);  
        Void remove_player(Player* p);  
        Void deal();  
        Void takeTurn(Player *p);  
        Void hit(Player *p)  
        Void double(Player* p)  
        Void Stay(Player* p);  
        Void quit(Player* p)  
        Void addMoney(Player* p);  
        Void exit();  
}
```