

## Assignment 1-Card Game “Casino Royal”

## Introduction

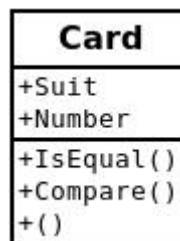
“Casino Royal” is a console base card game which is based on betting for highest value card between player and dealer .In one hand each player has 5 chances for betting for money.The Player’s card is shown early so player can decide the amount of betting money based on value of his card.

The Game is programmed by C++ using Object oriented programming techniques.This game consists “Card” class and Other non OOP methods and main method.

The “Card ” class has the attributes and functions of a playing card as shown in below.

Attributes: 1.Number  
2.Suit

Function: 1. IsEqual();  
2. Compare();



1.1 Class Diagram of “ Card ” class

## How to play the game and control options

This game has very user friendly simple gaming control, it required only the amount of betting money to be entered in Console as when it required.

When the 5 chances of betting are over , Finalized summery will be giver to user indicating Winning , Losses and the Profit earned from the “Casino Royal”

## Advancing mechanism

Time function based randomization is used for giving cards to both player and dealer,there for game is not biased for any of parties.

Functions used for randomization : srand();  
time();  
rand();

Time() function used to seed srand(); function therefor rand() is generating unique random numbers Based on time.

## Graphical user interfaces

```
-----||  $$$  CASINO ROYAL  $$$  ||-----
This Card game is base on betting for
highest value card between player and Dealer.
In one Hand You have 5 chances....$
Values of Suit are increase as
Clubs, Diamonds, Hearts, Spades

$$$$$ Enjoy ! on Casino Royal $$$$$$

Beting time :1
You Card :4 of Clubs
How much are you going to bet :
```

### 1.2 Splash Screen of “Casino Royal”

```
The Edit View Search Terminal Help
You lost <!>

Beting time :5
You Card :8 of Hearts
How much are you going to bet :1
Dealer's Card :5 of Clubs
You won !!!

Final Summary |
Winning       |1021 $
Loses         |118 $
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Profit        |903$

Do you want this game again(y/n):
```

### 1.3 Finalized summery of betting “Casino Royal”

## Challenges and solutions

During the development and testing, card randomization was major issue but it was solved with seeding `srand()` function with time function.

## Future improvements

In future , The game is planed to improve into online web based Casino game and integrate online payment methods such as Visa,Paypal,Payhere..etc.

Also planed to improve this game into using Crypto-currencies such as Bitcoins,Electro-coins..etc for betting with advance cyber security protection.