

# **CASINO BETTING GAME**

CSE2003- DSA PROJECT REPORT  
(J Component )

submitted by

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**VIT<sup>®</sup>**  
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# **ABSTRACT**

## **1. INTRODUCTION**

CASINO BETTING GAME is a refreshing game that is solely based on a player's luck and nothing else. This game code allows any number of players to place their bets and try their sheer luck along with the other players.

The game uses queue as a data structure concept.

After every round the randomly chosen number is being displayed for fair judgement.

A player wins his share bet if he chooses correctly otherwise he loses.

The winning player gets his betting money added to his original sum.

The user can play with the same set of players for infinite number of times till a player runs out of money to play.

According to traditional playing casino if a player forfeits or loses all his money then players on table for the respective round has to replace their initially playing money.

But the trick is that the player is allowed to play a spare round even after he gets bankrupt so that he can attain some money as his luck allows.

It uses RECURSIVE ALGORITHM approach for implementation of gaming module.

## **2. OVERVIEW OF THE PROPOSED SYSTEM**

### **1.1. SYSTEM ARCHITECTURE**

At first a main pop-up menu is displayed.

Here a user can choose to play or display the winner list or to QUIT.

If the choice is 1 then the user is taken to another pop-up menu to write the player names and to enter their initial bet money.

For any Quit option the user must enter '0' to leave the menu.

When the game starts the Set of game rules are displayed along with each player's current balance.

All these are done with recursion and system("cls").

All the players are asked to enter their round's betting money, if betting money is greater than their initial balance then he is asked to enter again.

Then the players are required to enter their random numbers.

Randomize function generates a random number, if this number tallies with a player's number then the following player wins the sub-round and if none of the players are win then the betting money is reduced from the current money balance.

After each sub round the user is asked if he wants to continue playing or wants to delete a player.

If the choice is 1 then the game continues with same procedure as stated above

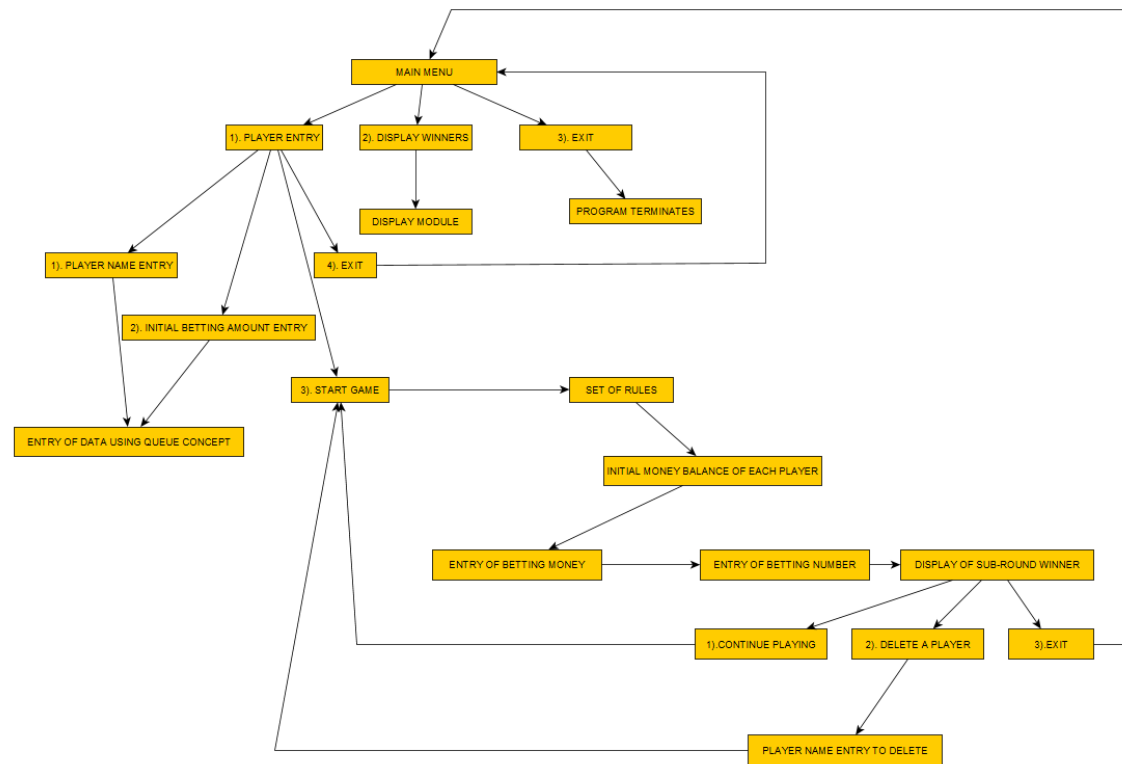
And if the delete option is chosen then the player's name is to be typed to get him removed.

Then just after the deletion the game continues but without that player.

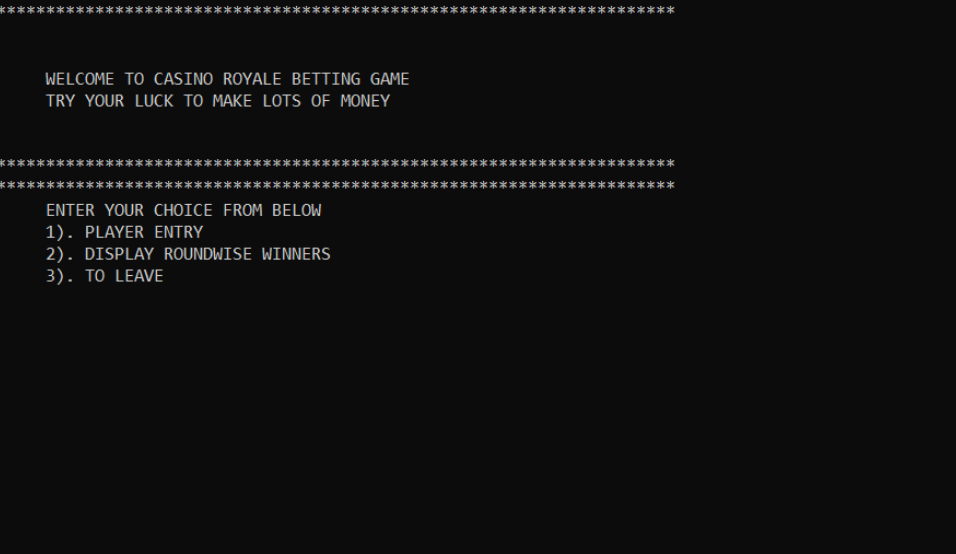
If all the players have been removed then the control is switched back to main menu with the last player to quit as winner for the round.

The user can play with the previous players even after the end of a round or we can override the program by popping all names out with their bet amount. It will become a clean state to start with.

## PROCESS FLOW:



## MODULE 1:



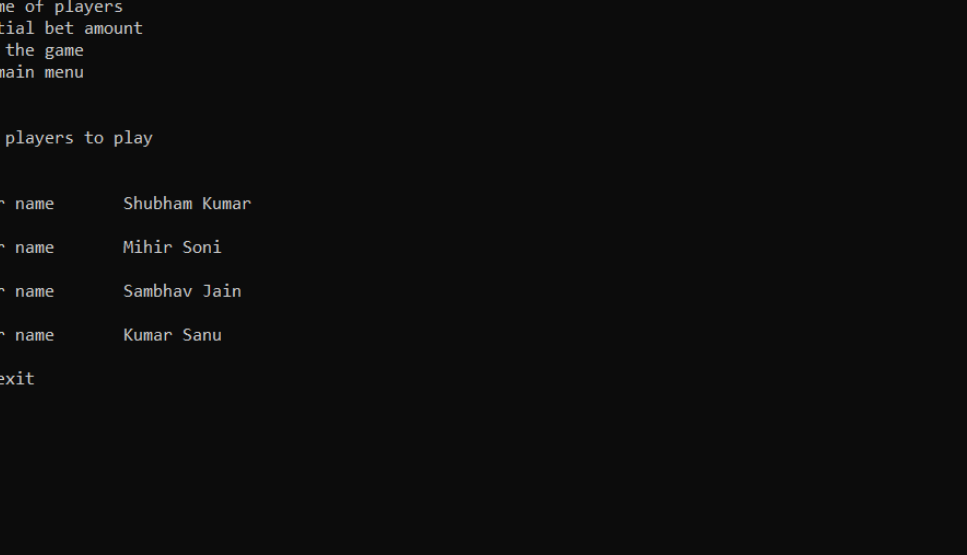
```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe

*****
*****

WELCOME TO CASINO ROYALE BETTING GAME
TRY YOUR LUCK TO MAKE LOTS OF MONEY

*****
*****

ENTER YOUR CHOICE FROM BELOW
1). PLAYER ENTRY
2). DISPLAY ROUNDWISE WINNERS
3). TO LEAVE
```



```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe
1).Enter name of players
2).Enter intial bet amount
3).To start the game
4).Exit to main menu
1
enter no.of players to play
4
Enter player name      Shubham Kumar
Enter player name      Mihir Soni
Enter player name      Sambhav Jain
Enter player name      Kumar Sanu
Enter 0 to exit
```

This module uses concept of queue insertion for string and integer data insertion

Here string.h and iostream.h header files are being used

At first a pop up main menu is displayed, showing the choice to begin and display

This module presents a set of choices for basic entries of **PLAYER NAMES**, their initial bet amount and choice to start the game.

Choice 1: It results in entering the player names who are going to play the **CASINO** game

Choice 2: It asks for the placing bets of the entered players

Choice 3: It starts the game

Choice 4: It takes the control back to main menu

This module deals with storage and implementation of data entries

## **MODULE 2:**

### **THE GAME—**

At first a directory namely `ctime.h` and `cstdlib.h` (header files) are accessed

Here recursive algorithmic approach is used to solve the base case directly and then recurs with a simpler input every time.

A seed with `srand(time(0))` is being placed . The **`srand()`** function in **C++** seeds the pseudo random number generator used by the `rand()` function.

Then a specific set of instructions are displayed regarding the rules of the game

Here recursion is being used consistently to play the game again and again.

Initially all the player's initial placed bets are shown (these are their net amount they have)

Then , all the players are asked to place their betting amount of the following round.

Then they are supposed to write their random numbers between 1 to 10 to play the betting game of **LUCK!!**

```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe

*****
RULES OF THE GAME
*****
1. Choose any number between 1 to 10
2. If you win you will get 10 times of money you bet
3. If you bet on wrong number you will lose your betting amount
*****

Shubham Kumar,Your current balance is $ 880
Mihir Soni,Your current balance is $ 2066
Sambhav Jain,Your current balance is $ 2900
Kumar Sanu,Your current balance is $ 778

Shubham Kumar, Enter your betting money $123
Mihir Soni, Enter your betting money $34
Sambhav Jain, Enter your betting money $67
Kumar Sanu, Enter your betting money $56

Shubham Kumar ,Guess your number between 1 to 10 to place the bet:1
Mihir Soni ,Guess your number between 1 to 10 to place the bet:6
Sambhav Jain ,Guess your number between 1 to 10 to place the bet:3
Kumar Sanu ,Guess your number between 1 to 10 to place the bet:7
```

Here we use rand() (randomize) function to generate a random number to be used for the current round.

If any of the players get lucky that is their respective numbers match the random number then they win this first sub-round

Results of respective sub-round will be displayed.

```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe

The winning number was : 2

Shubham Kumar,you have $880
Mihir Soni,you have $2066
Sambhav Jain,you have $2900
Kumar Sanu,you have $778

ENTER 1 TO PALY AGAIN
ENTER 2 IF YOU WANT TO DELETE A PLAYER
ENTER 3 TO LEAVE
```

Now the user is asked that whether he wants to continue playing or to leave

Choice 1: The game starts again

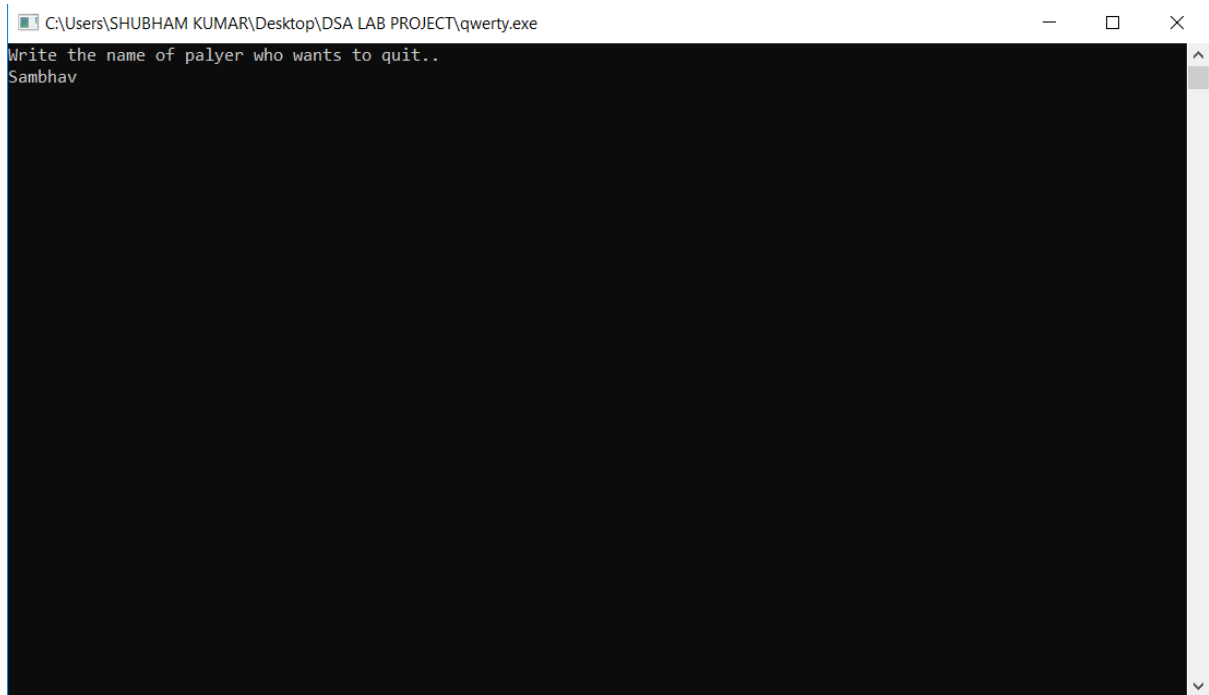
Choice 2: If any player wants to quit the game

Choice 3: To end the respective round.

### **MODULE 3:**

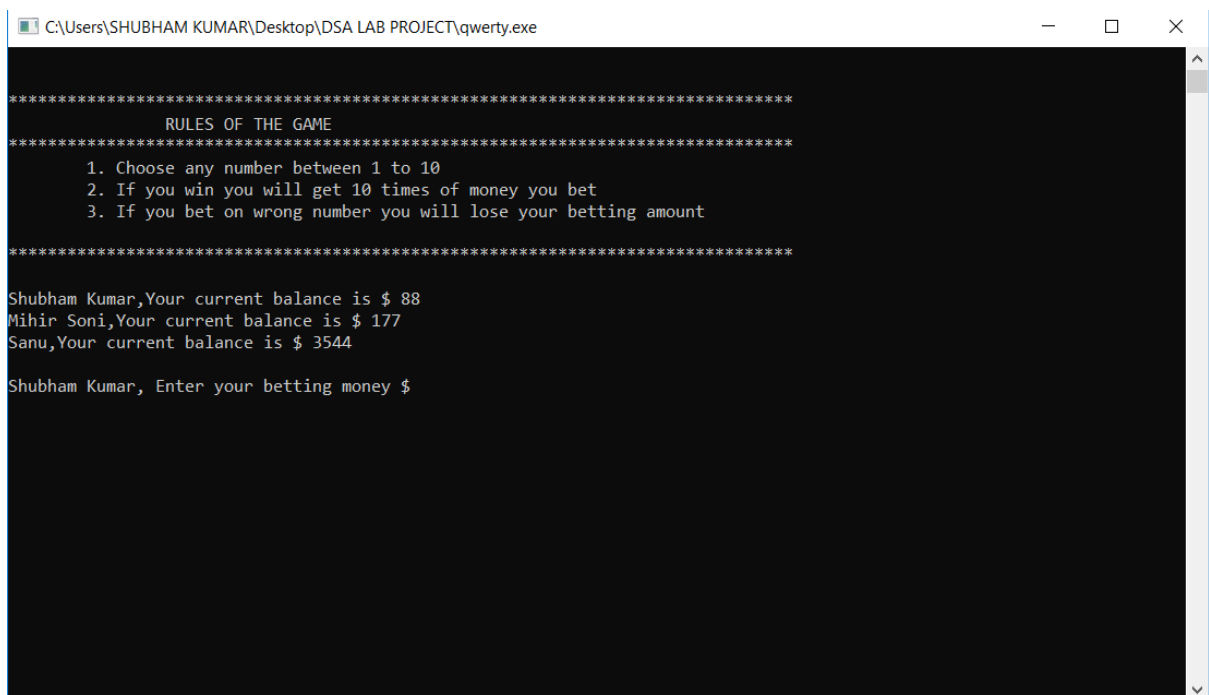
This module includes deletion from a queue and displaying of results.

The user is asked to write the name of player who wants to quit.



```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe
Write the name of palyer who wants to quit..
Sambhav
```

Then the game starts again but without that player who got deleted



```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe

*****
RULES OF THE GAME
*****
1. Choose any number between 1 to 10
2. If you win you will get 10 times of money you bet
3. If you bet on wrong number you will lose your betting amount
*****

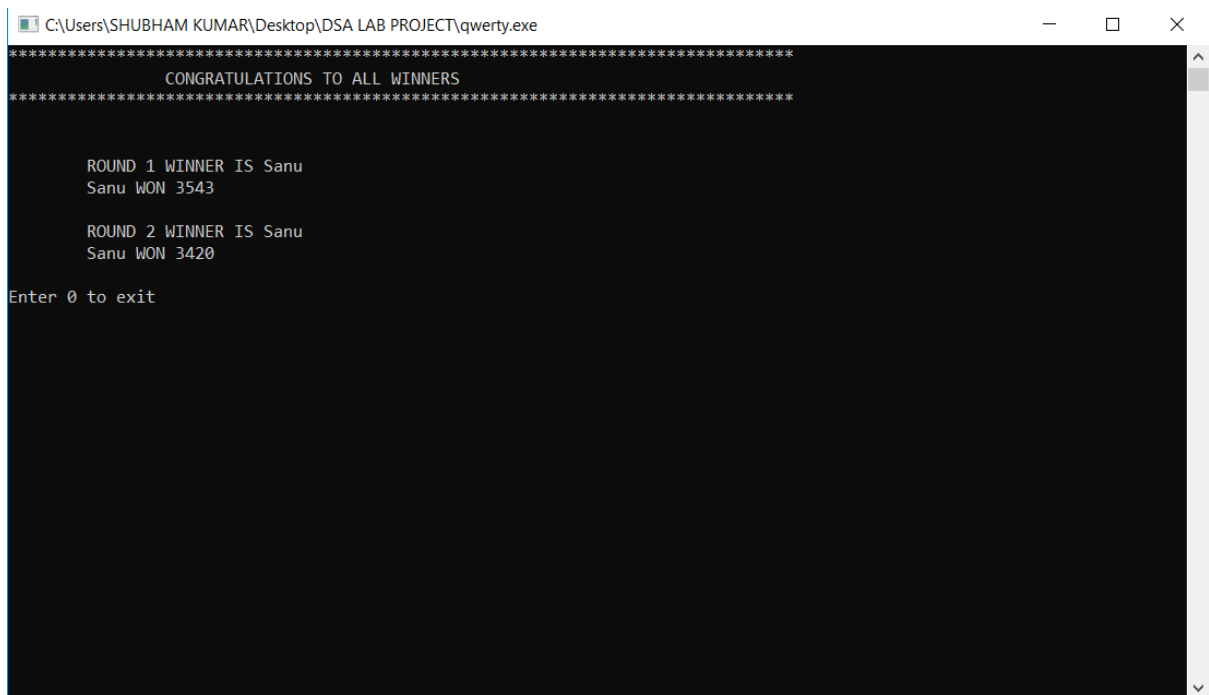
Shubham Kumar,Your current balance is $ 88
Mihir Soni,Your current balance is $ 177
Sanu,Your current balance is $ 3544

Shubham Kumar, Enter your betting money $
```

If the choice entered was 3

Then the initial pop up menu will be opened

Then if the choice entered is 2, then the winners of each round are displayed with their winning money.



```
*****
CONGRATULATIONS TO ALL WINNERS
*****

ROUND 1 WINNER IS Sanu
Sanu WON 3543

ROUND 2 WINNER IS Sanu
Sanu WON 3420

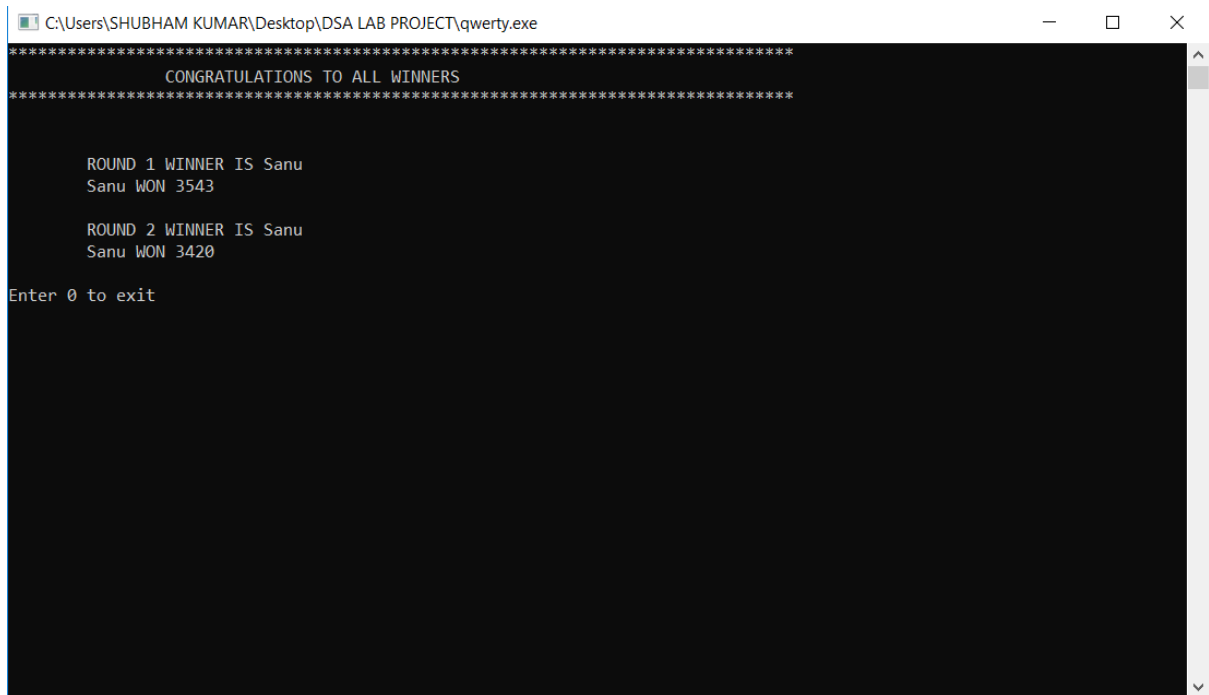
Enter 0 to exit
```

Here if the user wants to play with the same players he can play by choosing option number 3.



### 3. RESULTS AND DISCUSSION

Respective rounds winner's are displayed on the screen.



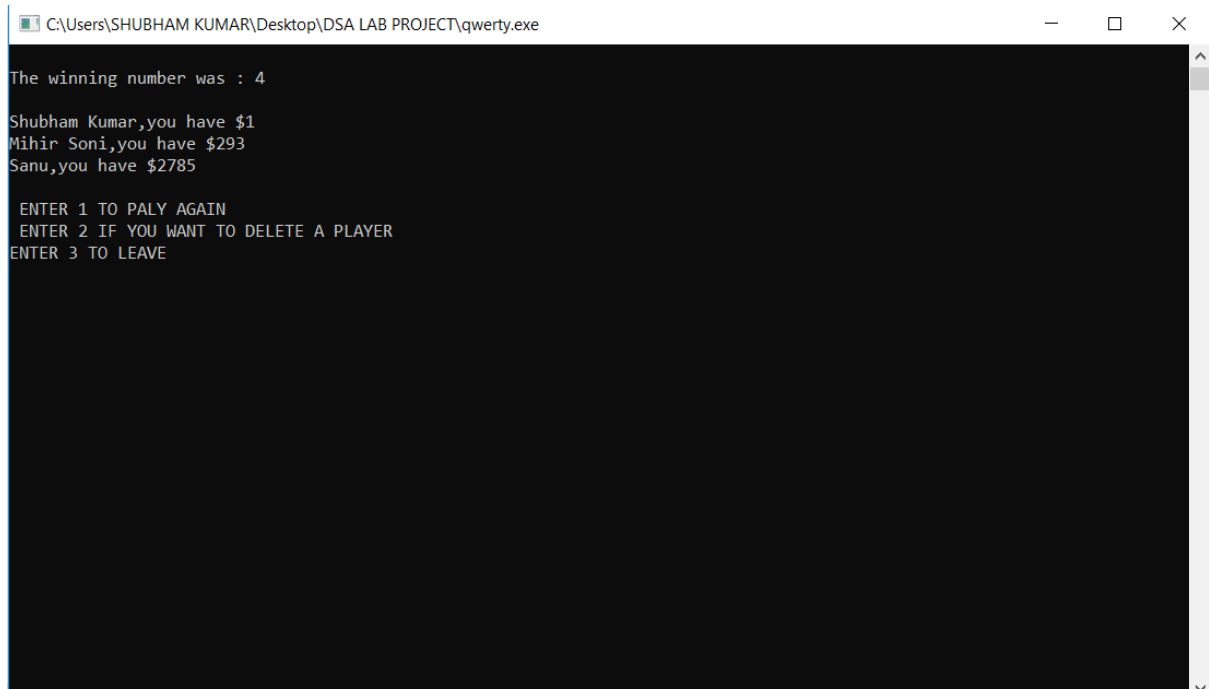
```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe
*****
CONGRATULATIONS TO ALL WINNERS
*****

ROUND 1 WINNER IS Sanu
Sanu WON 3543

ROUND 2 WINNER IS Sanu
Sanu WON 3420

Enter 0 to exit
```

In every round sub-round winner is displayed.



```
C:\Users\SHUBHAM KUMAR\Desktop\DSA LAB PROJECT\qwerty.exe

The winning number was : 4

Shubham Kumar,you have $1
Mihir Soni,you have $293
Sanu,you have $2785

ENTER 1 TO PALY AGAIN
ENTER 2 IF YOU WANT TO DELETE A PLAYER
ENTER 3 TO LEAVE
```

The results are purely based on round wise winners if new players are to be inserted the choice 1 is chosen to override the player data and their betting money.

## 4. CONCLUSION

The code runs on C++ platform giving a Casino Betting Game implemented on Dev C++.

It uses RECURSIVE ALGORITHM approach.

The Betting Game implements concepts of data storage and deletion using queues and recursive programming algorithm. Srand(time(0)) places a seed for randomize function. After each entry the numbers are compared and the output displays the winners for each round.

Hence the game provides a good ground for playing a realistic multiplayer game.

A player can play as many times till he gets bankrupt or withdraws to play.

The following code is a simple way to implement queue concept in a new orderly manner

## REFERENCES

- 1). Google.com
- 2). Data Structure & Algorithms by [Michael T. Goodrich](#).