

# *Let's own a casino!*

In this game simulation, the end user will be the dice thrower.

The dice game simulation must use two separate random die whose results are added, so that the simulation is probability wise behaving correctly. You must reseed the random number generation so that each run of the program has different throw results.

Your program must be well structured and extensive use functions and be a modular design. You do not have to use classes and object design in this assignment.

This program can assume all inputs are integers representing whole dollar amounts.

## 1) Ask the user for a stake amount (initial amount of money available to bet).

Check to make the sure user enters a correct number (over 0).

State a descriptive error to re-prompt the user if the stake amount is not a correct amount like a negative number).

## 2) Ask the thrower for their bet.

The amount of money the thrower has to bet (the stake amount) should be displayed before the throw to help the thrower make a bet.

You must verify correct bets (ex: bet amount must be greater than or equal to than stake amount that is left).

The thrower must have money to be able to bet on a throw (stake money left > 0) or the game will post a message and automatically end.

The bet amount should be taken from the stake amount.

At this point, if the **thrower wishes to stop the game**, then **the thrower should enter a bet of 0**.

## 3) Throw a pair of dice.

A message should display telling the bettor to throw the dice by pressing any key.

When the thrower wins, twice the bet money is returned back into the thrower's total stake.

### Throw results:

- If the total value of the dice is **7** or **11**, the thrower is an **instant winner**.
- If the total value of the dice is **2**, **3**, or **12**, the thrower is an **instant loser**.
- If the total is anything else, remember this total, it is called the **"point"**.

The thrower throws again:

- If the new point throw total is equal to the **"point"**, the **thrower wins**.
  - If the new point throw total is a **7**, the **thrower loses**.
  - If the new point throw total is **anything else** than a **7** or the **point**,  
the thrower must keep throwing until the thrower wins by getting a **point** roll or loses by getting a **7**.
- When the thrower is done with each cycle of throwing, the game should display the new adjusted stake amount.

## 4.) When throwing cycle is done an ending condition occurring (no money left, win or lose), the program will report the final stake amount the thrower has left and how many total throws the thrower made during the game.

Recall that the game ends when:

- The thrower ends the game by entering a **zero bet** at the start of a throw cycle.
- The **stake** ends up at a **zero amount**, the program automatically ends the game.

# *Let's own a casino!*

A sample of a solution program output is included at the end of this assignment.  
Use the sample solution output as a required guide in designing the program output.

Your output must be well formatted and genrally match the formatting in the sample output.

You ust use the provided RollBones.cpp file for developing the program. You must fill out this file to find the program.

Sample output  
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What is your stake amount ? -1

You have to enter a 0 or positive amount of money to bet with. Try again!

What is your stake amount ? 100

Current Stake Amount : 100

What will you bet ? 10

Press enter key to throw the dice

Die 01 is 3

Die 02 is 6

The dice throw results : 9 !

The point is 9

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 6

Die 02 is 4

The dice throw results : 10 !

The point is 9

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 3

Die 02 is 2

The dice throw results : 5 !

The point is 9

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 1

Die 02 is 5

The dice throw results : 6 !

The point is 9

Throw em again and hope that luck's on your side!

# *Let's own a casino!*

Press enter key to throw the dice

Die 01 is 1

Die 02 is 1

The dice throw results : 2 !

The point is 9

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 5

Die 02 is 5

The dice throw results : 10 !

The point is 9

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 6

Die 02 is 3

The dice throw results : 9 !

We've got ourselves a winner!

Current Stake Amount : 110

What will you bet ? 110

Press enter key to throw the dice

Die 01 is 3

Die 02 is 1

The dice throw results : 4 !

The point is 4

Throw em again and hope that luck's on your side!

Press enter key to throw the dice

Die 01 is 2

Die 02 is 2

The dice throw results : 4 !

We've got ourselves a winner!

Current Stake Amount : 220

What will you bet ? 0

Player ends Game

Roll Count : 9

Final Stake Amount : 220

Press enter key to end ... What is your stake amount ? -1

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Press any key to close this window . . .