Project 2

<Hazard>

CIS 5- 41202

David

Duran

Due Date: 02/11/16

Introduction:

Players 2+

Age range Adult

Setup time < 1 minute

Random chance High, Dice rolling

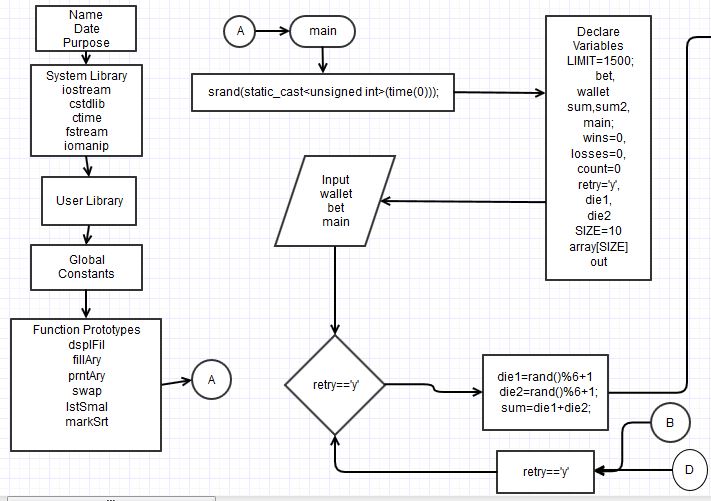
Skill(s) required Betting

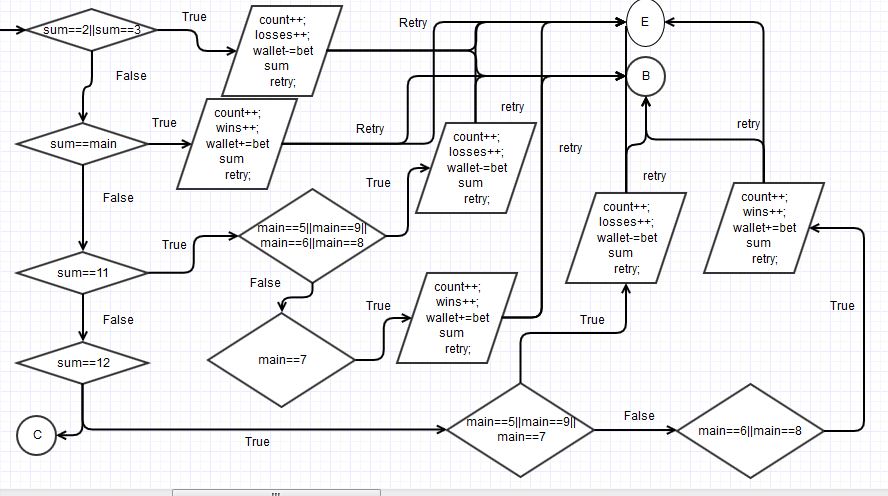
Rules: Any number may play, but only one player – the **caster** – has the dice at any one time.

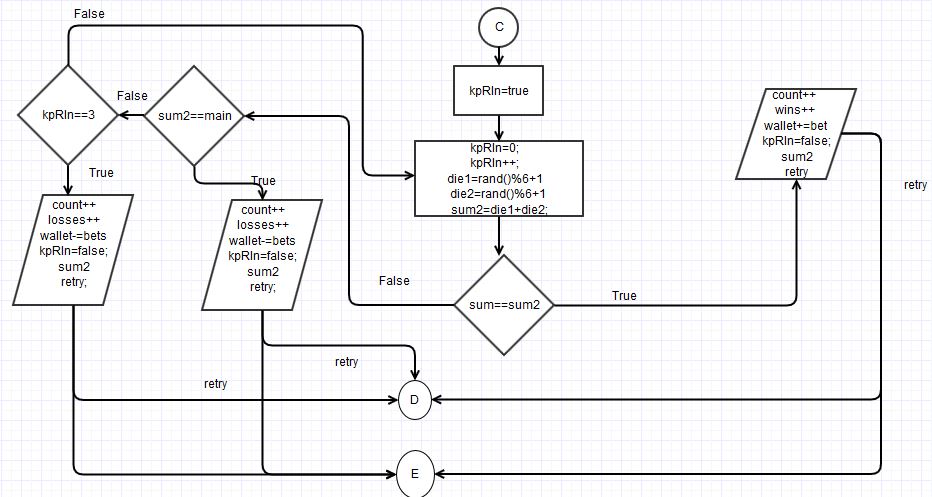
In each round, the caster specifies a number between 5 and 9 inclusive: this is the **main**. He then throws two dice.

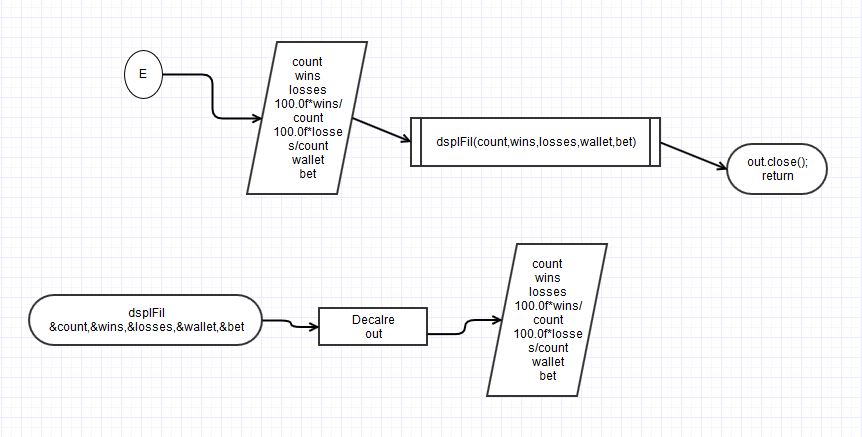
* If he rolls the main, he wins (**throws in** or **nicks**).
* If he rolls a 2 or a 3, he loses (**throws out**).
* If he rolls an 11 or 12, the result depends on the main:
  + with a main of 5 or 9, he throws out with both an 11 and a 12;
  + with a main of 6 or 8, he throws out with an 11 but nicks with a 12;
  + with a main of 7, he nicks with an 11 but throws out with a 12.
* If he neither nicks nor throws out, the number thrown is called the **chance**. He throws the dice again:
  + if he rolls the chance, he wins;
  + if he rolls the main, he **loses** (unlike on the first throw);
  + if he rolls neither, he keeps throwing until he rolls one or the other, winning with the chance and losing with the main.

FlowChart









Pusedo Code

/\*

File: main.cpp

Author: David Duran

Created on February 02, 2016, 06:06 PM

Purpose: Hazard

\*/

//System Libraries

//I/O

//srand and rand function

//time to set the random number seed

//File I/O

//Formatting

//User Libraries

//Global Constants

//Function Prototypes

// Execution Begins Here

//Set the random number seed

//Declare and initialize variables

//Limit of $$ able to put on table

//Amount $ able to bet and Amount on user

//Main = #5-9, sum=die1+die2, sum2=die1+die2

//Number of Wins, Losses, and Games

//Dice #1: 1-6,Dice #2: 1=6,Replay

//Allows the File to be read

//Hazard Game Setup

//Limits the amount able to bet

//Throw Dice

//Fill the array with random 2 digit numbers

//Print the array

//Test finding the smallest number in the list

//Print the array

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\* Display File \*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

//loop and fill the array with random numbers

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\* Void 2 \*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

//loop and fill the array with random numbers

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

/\* Swap Variables \*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

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/\* Smallest in List \*/

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//Loop and compare

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

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//loop and fill the array with random numbers

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| --- | --- | --- |
| Variables | Data Types | Location |
| LIMIT | Const unsigned int | 28,43 |
| bet | Float | 29 |
| wallet | Float | 29 |
| sum | Unsigned int | 30 |
| sum2 | Unsigned int | 30 |
| main | Unsigned int | 30 |
| wins | Unsigned short | 31 |
| losses | Unsigned short | 31 |
| count | Unsigned short | 31 |
| retry | Char | 32 |
| die1 | Char | 32 |
| die2 | Char | 32 |
| out | ofstream | 33 |

Sources:

1. <https://en.wikipedia.org/wiki/Hazard_%28game%29>