

# Source Code

```
#include <iostream>
#include <cstdlib>
#include <string>

using namespace std;

/* Generates a random number ranging from 1 to 10 */
int generateRandom();

/* Inputs a number ranging from 1 to 10 from STDIN. */
int inputNumber();

/* Gets betting amount for each round from the user
 * from STDIN.
 */
int getBetAmount(int);

/* Checks if the the number entered by the user
 * matches the number generated randomly and changes
 * the money the user has accordingly.
 */
int playGame(int);

/* Gets the starting money from the STDIN
 * and loops the main game.
```

```

**/
int main() {
    char prompt;
    int money;
    cout << "How much money do you have: ";
    cin >> money;
    cout << "You have money " << money << endl;
    do {
        if (money == 0) {
            cout << "No money left" << endl;
            break;
        }
        money = playGame(money);
        cout << "You are left with money: " << money << endl;
        cout << "Play again? (y/N): ";
        cin >> prompt;
        cout << endl;
    } while(tolower(prompt) == 'y');

    cout << "Thanks for playing!" << endl;;
    return 0;
}

int generateRandom() {
    return (rand() % 10) + 1;
}

int inputNumber() {

```

```
int number;
while (1) {
    cout << "Give me a number between 1 and 10: ";
    cin >> number;
    if (number > 0 && number <= 10) {
        break;
    }
}
return number;
}

int getBetAmount(int money) {
    int bet;
    while (1) {
        cout << "Enter betting amount: ";
        cin >> bet;
        if (bet <= money) {
            break;
        }
        cout << "Bet amount cannot be greater than money left
!" << endl;
    }
}

int playGame(int money) {
    int bet, random, guess;
    bet = getBetAmount(money);
    random = generateRandom();
```

```
guess = inputNumber();  
if (guess == random) {  
    cout << "JACKPOT!" << endl;  
    money += 10 * bet;  
} else {  
    cout << "Sorry, you lost! The lucky number was " << r  
andom << endl;  
    money -= bet;  
}  
return money;  
}
```