#include <iostream>

#include <cstdlib>

#include <ctime>

using namespace std;

class NumberGuessingGame {

private:

int secretNumber;

int guess;

int attempts;

public:

NumberGuessingGame() {

srand(time(0));

}

void generateNumber() {

secretNumber = rand() % 100 + 1;

attempts = 0;

}

void playRound(){

cout << "I have selected a number between 1 and 100. Try to guess it!\n";

do {

cout << "Enter your guess: ";

cin >> guess;

attempts++;

if (guess > secretNumber)

cout << "Too high! Try again.\n";

else if (guess< secretNumber)

cout << "Too low! Try again.\n";

else

cout << "Congrats! You guessed it in "<< attempts << "attempts.\n";

}while (guess != secretNumber);

}

void playGame(){

char again;

do{

generateNumber();

playRound();

cout << "Do you want to play again? (y/n):";

cin >> again;

}while (again == 'y' || again == 'Y');

cout << "Tanks for playing! Goodbye.\n";

}

};

int main(){

NumberGuessingGame game;

game.playGame();

return 0;

}

Output:

I have selected a number between 1 and 100. Try to guess it!

Enter your guess: 50

Too high! Try again.

Enter your guess: 45

Too high! Try again.

Enter your guess: 40

Too high! Try again.

Enter your guess: 35

Too high! Try again.

Enter your guess: 30

Too high! Try again.

Enter your guess: 25

Too high! Try again.

Enter your guess: 20

Too high! Try again.

Enter your guess: 15

Too high! Try again.

Enter your guess: 10

Too low! Try again.

Enter your guess: 14

Too high! Try again.

Enter your guess: 13

Congrats! You guessed it in 11attempts.

Do you want to play again? (y/n):n

Tanks for playing! Goodbye.

=== Code Execution Successful ===