**Task 3**

* Create a program that generates a random number and asks the user to guess it. Provide feedback on whether the guess is too high or too low until the user guesses the correct number.

C0DE: #include <iostream>

#include <cstdlib>

#include <ctime>

using namespace std;

int main() {

srand(static\_cast<unsigned int>(time(0)));

int randomNumber = rand() % 100 + 1;

int userGuess = 0;

int attempts = 0;

cout << "Welcome to the number guessing game!" << endl;

cout << "I have selected a number between 1 and 100." << endl;

cout << "Try to guess it!" << endl;

while (userGuess != randomNumber) {

cout << "Enter your guess: ";

cin >> userGuess;

attempts++;

if (userGuess < randomNumber) {

cout << "Your guess is too low. Try again!" << endl;

} else if (userGuess > randomNumber) {

cout << "Your guess is too high. Try again!" << endl;

} else {

cout << "Congratulations! You guessed the correct number!" << endl;

cout << "It took you " << attempts << " attempts ." << endl;

}

}

return 0;

}

Output: Welcome to the number guessing game!

I have selected a random number between 1 and 100.

Try to guess it!

Enter your guess: 50

Your guess is too low. Try again!

Enter your guess: 60

Your guess is too low. Try again!

Enter your guess: 80

Your guess is too high. Try again!

Enter your guess: 75

Your guess is too high. Try again!

Enter your guess: 70

Your guess is too high. Try again!

Enter your guess: 65

Your guess is too low. Try again!

Enter your guess: 67

Your guess is too low. Try again!

Enter your guess: 69

Congratulations! You guessed the correct number!

It took you 8 attempts .