NUMBER GUESSING GAME

AIM:

where the program randomly selects a number, and the user has to guess it.

ALGORITHM:

1. Import the `random` module.
2. Generate a random number between a specified range.
3. Prompt the user to guess the number.
4. Compare the user's guess with the random number.
5. Provide feedback (higher, lower, or correct).
6. Repeat steps 3-5 until the user guesses correctly.
7. Display the number of attempts.

PROGRAM:

```
import random


def number_guessing_game():
    print("Welcome to the Number Guessing Game!")


    # Generate a random number between 1 and 100
```

```
    secret_number = random.randint(1,
100)

    attempts = 0

    while True:
        # Prompt the user to guess the
number
        user_guess = int(input("Guess the
number between 1 and 100: "))

        # Increment the attempts counter
        attempts += 1

        # Compare the user's guess with
the secret number
```

```
        if user_guess == secret_number:
            print(f"Congratulations! You
guessed the correct number
{secret_number} in {attempts}
attempts.")
            break
        elif user_guess < secret_number:
            print("Too low! Try again.")
        else:
            print("Too high! Try again.")

if __name__ == "__main__":
    number_guessing_game()
```

OUTPUT:

```
Welcome to the Number Guessing
Game!
```

Guess the number between 1 and 100: 50

Too low! Try again.

Guess the number between 1 and 100: 75

Too high! Try again.

Guess the number between 1 and 100: 63

Too high! Try again.

Guess the number between 1 and 100: 57

Too low! Try again.

Guess the number between 1 and 100: 60

Congratulations! You guessed the correct number 60 in 5 attempts.

RESULT:

The program allows the user to play a number guessing game where they need to guess a randomly generated number. The program provides feedback on whether the user's guess is too high or too low and displays the number of attempts it took to guess the correct number.