NUMBER GUESSING GAME

Program:

import random

#Generate a random number between 1 and 100.

Secret_number=random.randint(1,100)

attempts=0

print("Welcome to the Number Guessing Game!")

print("I am Thinking of a Number between 1 and 100.")

#Loop until the user guesses the correct number.

while True:

    guess=int(input("Enter your guess:"))

```python
        attempts+=1
        if guess<Secret_number:
            print("Too low! Try  again.")
        elif guess>Secret_number:
            print("Too high! Try again.")
        else:
            print(f"Congratulations ! You guessed  the number in {attempts} tries.")
            break
```

Output:

    Welcome to the Number Guessing Game!

    I am Thinking of a Number between 1 and 100.

    Enter your guess:50

Too high! Try again.

Enter your guess:25

Too low! Try again.

Enter your guess:35

Too low! Try again.

Enter your guess:67

Too high! Try again.

Enter your guess:45

Too high! Try again.

Enter your guess:40

Congratulations ! You guessed the number in 6 tries.

Code Explanation:

```python
import random
```

- **Purpose:** This imports the random module, which lets us generate a random number later.

Secret_number= random.randint(1,100)

- **What it does:** Picks a random number between 1 and 100 (including both).
- **Secret_number** is the number the player has to guess.

attempts=0

- **Why:** This keeps count of how many guesses the player makes.

print("Welcome to the Number Guessing Game!")

```
print("I'm Thinking of a Number between 1 and 100.")
```

- **What happens:** Displays an introductory message to the player.

```
while True:
```

- **What it means:** Starts an infinite loop. It will keep asking for guesses until the correct number is guessed.

```
guess=int(input("Enter your guess:")
```

- **What it does:** Takes user input, converts it from a string to an integer, and stores it in guess.

```
attempts+=1
```

- **Why:** Adds 1 to the guess count every time the user enters a number.

  if guess<Secret_number:
  print("Too low! Try again.")

- If the user's guess is less than the secret number, a message tells them it's too low.
  elif guess >Secret_number:
  print("Too high! Try again.")

- If the guess is greater than the secret number, it says it's too high.

  else:

```
        print(f"Congratulations! You
guessed the number in {attempts}
tries.")
        break
```

- If the guess is correct, it prints a congratulations message and breaks(ends) the loop.