**Build a program that generates a random number**

import random

def guess\_number():

# Generate a random number between 1 and 100

number\_to\_guess = random.randint(1, 100)

attempts = 0

guessed\_correctly = False

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

print("I have chosen a number between 1 and 100. Can you guess it?")

while not guessed\_correctly:

try:

# Prompt the user to enter their guess

user\_guess = int(input("Enter your guess: "))

attempts += 1

# Compare the user's guess with the generated number

if user\_guess < number\_to\_guess:

print("Too low! Try again.")

elif user\_guess > number\_to\_guess:

print("Too high! Try again.")

else:

guessed\_correctly = True

print(f"Congratulations! You've guessed the correct number: {number\_to\_guess}")

print(f"It took you {attempts} attempts to guess the number.")

except ValueError:

print("Please enter a valid number.")

if \_\_name\_\_ == "\_\_main\_\_":

guess\_number()



