NUMBER GUESSING GAME IN PYTHON:

LEARN LOOPS, RANDOM, AND INPUT HANDLING

INTRODUCTION:

- What is the Number Guessing Game?
- Why build this project?
- Relevance in beginner Python learning.

FEATURES:

- Random number generation between 1 and 100.
- Unlimited guesses with hinting.
- Attempt counter.
- Graceful handling of invalid input.

CODE BREAKDOWN – PART 1 & PART 11:

- Importing random.
- Defining the guess_the_number() function.
- Setting up the secret number and attempts tracker.
- while True loop for continuous guessing.
- Using if/elif/else for comparing guesses.
- try/except to handle ValueError.

LEARNING OUTCOMES:

- Using random.randint()
- Conditional statements and loops
- Input and exception handling
- Creating user-friendly CLI programs

REAL-WORLD USE CASES:

- Foundation for building more complex games
- Core logic for gamified learning apps
- Introduction to logic building and debugging

CONCLUSION:

- A simple but effective beginner project.
- Easy to extend (add scoreboards, time limits, difficulty levels).
- Helps strengthen programming logic.

EXAMPLE OUTPUT:

- Welcome to the Number Guessing Game!
- Enter your guess: 25
- Too low!
- Enter your guess: 75
- Too high!
- Enter your guess: 50
- You guessed the number in 3 attempts.