K-HUB DAY 3 REPORT

Date: 4th-Aug-2025
Venue: KIET Campus / K-Hub Lab
Attended By: Junior Developers, Senior Developers, Team Leads

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Day 2 of Python Basics – Loops & Functions

Loops:

1. **for Loop**
   - `for i in range(5): print(i)`
   - Looping through a list: `for item in [1, 2, 3]: print(item)`
2. **while Loop**
   - Simple condition: `while count < 5: count += 1`
   - Sentinel loop: until user enters 'q'

3. **Loop Control Statements**
   - `break`: exit when a condition is met
   - `continue`: skip even numbers
4. **Loop with else**
   - `else` block runs only if loop didn't break
5. **Nested Loops**
   - Pattern printing using nested for loops

🔧 **Functions:**

- **Defining & Calling**
  - `def greet(): return 'Hello'`
  - `print(greet())`
- **Arguments**
  - Positional: `add(a, b)`
  - Default: `def greet(name='User')`
  - `*args`: multiple arguments
  - `**kwargs`: dictionary of args

- **Variable Scope**
  - Local and Global
  - Using `global` keyword
- **Lambda Functions**
  - `square = lambda x: x*x`
  - Used with `map()` and `filter()`

📌 **Practice:** 2 programs for each concept: loop types, function types
Worked both independently and in guided sessions

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