

Python-6 Classwork

For Loops

1 **Pizza Party**

Write a **for** loop to print each pizza topping from the list.

```
toppings = ["Cheese", "Tomato", "Pepperoni", "Mushroom"]  
# Output:  
# Cheese  
# Tomato  
# Pepperoni  
# Mushroom
```

2 **Sum of Numbers**

Use a **for** loop to calculate the sum of numbers from 1 to 10.

Input: 10
Output: Sum = 55

3 **Multiplication Table**

Print the multiplication table of a number entered by the user.

Input: 3
Output:
3 x 1 = 3
3 x 2 = 6
...
3 x 10 = 30

While Loops

4 **Guess the Number**

Keep asking the user to guess the number until they get it right.

Input: 5
User keeps guessing: 2, 3, 5
Output: Correct!

5 💰 Bank Balance Simulator

Keep withdrawing ₹100 until balance is zero.

Input: 500

Output:

Withdrew ₹100, Balance: ₹400

...

Balance is zero!

6 🕒 Countdown Timer

Print numbers in reverse from 10 to 1 using a while loop.

Output: 10 9 8 7 ... 1

1 2 3 4 Enumerate

7 🎒 Pack List with Index

Print each item in a backpack with its position using `enumerate`.

```
backpack = ["Water", "Map", "Snacks"]
```

Output:

1. Water

2. Map

3. Snacks

8 🎵 Playlist Tracker

Print all songs in a playlist and their play position.

Input: ["Song A", "Song B", "Song C"]

Output:

0: Song A

1: Song B

2: Song C

🚫 Break & Continue

9 🚗 Stop at Red Light

Loop through signals. Break when "Red" is found.

Input: ["Green", "Yellow", "Red", "Green"]

Output:

Green
Yellow
Red Light! Stop!

10 🎯 Skip the Sugar!

Skip "Candy" while listing food items using `continue`.

```
foods = ["Apple", "Candy", "Banana"]  
# Output:  
# Apple  
# Banana
```

11 🎲 Dice Game (Stop at 6)

Simulate rolling dice. Stop when 6 appears.

```
Input: [2, 5, 4, 6, 3]  
Output:  
Rolled: 2  
Rolled: 5  
Rolled: 4  
Rolled: 6  
Game Over!
```

⚡ Pass Statement

12 🛠️ Code Placeholder

Create a loop with `pass` to act as a placeholder.

```
for i in range(3):  
    pass  
# Output: (No output, but no error)
```

13 📦 To Be Done

Write a function `todo()` that uses `pass` inside it.

```
def todo():  
    pass  
# Output: (Nothing happens, no error)
```

🧰 Functions

14 🇮🇳 Add Two Numbers

Write a function `add(a, b)` to return the sum.

Input: 3, 5

Output: 8

15 🍳 Recipe Function

Create a function `print_ingredients()` that prints three ingredients.

Output:

Salt

Oil

Onion

16 📦 Factorial Function

Write a function to return the factorial of a number.

Input: 5

Output: 120

17 ↺ Even or Odd Function

Write `is_even(n)` that returns `True` if even.

Input: 4

Output: True

18 📄 Reverse String Function

Write `reverse_string(s)` to return reversed string.

Input: "python"

Output: "nohtyp"

19 🧠 Smart Sum

Create a function that sums all even numbers from a list.

Input: [1, 2, 3, 4, 5]

Output: 6

20 🍦 Ice Cream Machine

Define a function `make_icecream(flavor, scoops)` that prints:

Input: Chocolate, 2

Output: Making 2 scoops of Chocolate ice cream 🍦 🍦