# New Delhi Institute Of Management

**Subject : Machine Learning Using Python**

**Batch: 2024-26**

**Semester : 2**

# Lab Manual Assignment1:

## 1. Variables

### Question:

Create variables to store the name of a product, its price, and stock quantity. Print them in a single statement.

### Question:

A company records its monthly profit in a variable. Calculate the yearly profit by multiplying it by 12. Print both the monthly and yearly profits.

## 2. Data Types

### Question:

Create a dictionary to store employee details: name, ID, and department. Print each value.

### Question:

Convert a float salary to an integer and a string. Print the types of the converted values.

### Question:

Create a list of five product names and print them one by one using a loop.

## 3. If Statements

### Question:

Write a program to check if a sales figure is below target, on target, or above target using if-elif-else.

### Question:

Create a program that calculates the net profit after deducting tax if the revenue is above a threshold. Print 'Low Revenue' if it doesn't exceed the threshold.

## 4. Loops

### Question:

Use a for loop to calculate the total revenue for 5 products, given their prices and quantities in two separate lists.

### Question:

Write a while loop to calculate the cumulative profit for 12 months given a monthly profit input.

## 5. Functions

### Question:

Write a function to calculate the revenue for a product. It should take price and quantity\_sold as parameters and return the revenue.

### Question:

Create a function that takes an employee's performance score and returns their bonus amount based on specific rules.

### Question:

Write a function with default arguments to calculate the total price of an order. The default discount is 5%.

## 6. Operators

### Question:

Calculate the total cost of an order using arithmetic operators. Assume the formula is cost = (price \* quantity) - discount.

### Question:

Compare the sales of two branches and print whether they are equal, or which branch performed better.