ACROPOLIS INSTITUTE OF TECHNOLOGY & RESEARCH
Department of Computer Science and Engineering

Lab Plan

Subject Name:	**Programming Practices (c) Python**	**Sub Code**	**CS-406**
Program:	**BTech – CSE-3**	**Class**	**IV Sem**
Faculty Name	**Gajendra Chouhan**	**Session**	**Jan-June2024**

Course Objectives:

The subject/course objectives support the program objectives and outcomes. This subject will help students to learn and understand the concept of

406.CEO1	To learn and understand Python programming basics and paradigm.
406.CEO2	To learn and understand python looping, control statements and string manipulations.
406.CEO3	To learn and understand real word problems
406.CEO4	To learn the concepts of Object Oriented Prog
406.CEO5	To learn file handling

Course Outcomes: After completion of the course students will be able to

1. Understand the different concepts of Python Programming language

2. Define and demonstrate the use of built-in data structures and Control Structures

3. Design and implement a program to solve a real world problem.

4. Define and demonstrate different concepts of Object Oriented Programming

5. Define and Demonstrate Reading and writing files

Python Lab

Python Virtual Lab Link: https://python-iitk.vlabs.ac.in/

Other than Virtual Lab Exercises these Lab programs will also performed in the lab

S.No	Lab No	Problem Statements
1	1	A. To write a Python program to print “Hello World”. B. To write a Python program to Print Sum, Subtraction and Multiply of Two
2	2	A. To write a Python program to print Even and Odd for a given input. B. To write a Python program to print factorial of a Number C. To write a Python program to Print Prime or Not Prime for a given Number D. To write a Python program to print fabonicci series upto n Terms

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3	3	A. To write a Python program to find GCD of two numbers. B. To write a Python Program to find the square root of a number by Newton's Method.
4	4	A. To write a Python Program to find the maximum from a list of numbers. B. To write a Python Program to perform Linear Search C. To write a Python Program to perform binary search.
5	5	A. To write a Python Program to perform selection sort. B. To write a Python Program to perform insertion sort. C. To write a Python Program to perform Merge sort.
6	6	A. To write a Python program to find first n prime numbers. B. To write a Python program to multiply matrices. C. To write a Python program for command line arguments.
7	7	A. To write a Python program to find the most frequent words in a text read from a file. B. To write a Python program to simulate elliptical orbits in Pygame.
8	8	A. Reshape 5 x 4 array into 2 x 10 array. B. Flatten 5 x 3 array. C. Split 6 x 8 array into 3 x 4 and 3 x 4 two arrays.
9	9	A. Plot a Graph for Y = 2x + 3 B. Plot Bar Graph between x and y array. C. Create a dataframe from excel (Name, mst-1 marks) and print.
10	10	A. Sort dataframe in ascending order. B. Find max value in dataframe. C. Find min value in dataframe. D. Find mean value of marks.