

Practice Programs for Python Lab.

1. Write a Python program to implement for following.
 - (a) Create list of integers and convert it into ByteArray.
 - (b) Create range of first 10 integers and Create list of odd integers from 3 to 15 using range.
 - (c) Create integer set from list and character set. Perform following functions on the same: add(), remove(), and union().
2. Write a Python program to implement for following.
 - (a) Create integer set from list and character set. Perform following functions on the same: update(), discard(), pop() and intersection()
 - (b) Implement following string functions: replace(), count(), capitalize(), and join().
3. Write a Python program to implement for following.
 - (a) Create a list of integers, mixed data types, duplicate data items and nested lists.
 - (b) Use nested indexing to display items from nested list.
 - (c) Perform list methods: append(), insert() and remove().
4.
 - (a) Show that lists are mutable.
 - (b) Perform list methods: extend(), pop(), index(), count() and sort().
5.
 - (a) Create tuple consisting of months.
 - (b) Show that tuple is immutable.
 - (c) Perform tuple functions such as: all(), max(), sorted() and sum().
6.
 - (a) Create dictionary of fruit names and its colors.
 - (b) Use following function on dictionary: pop(), get(), keys(), values() and update().
7. Create character array and use following functions: append(), insert(), remove(), pop(), reverse(), sort() and count().
8. Write a python program to check if the number entered by user is Armstrong number.
9. Write a python program to find the Factorial of a number.
10. Write a python program to Print Pascal's triangle for 'n' number of rows entered by user.
11. Write a python program to make a simple calculator that perform add, subtract, multiply and division operations.
12.
 - (a) Write a python program to implement lambda with filter function to filter out even and odd numbers from a list.
 - (b) Write a python program to implement lambda with map function that returns squares of elements in a list.
13.
 - (a) Write a python program to implement lambda with reduce function to calculate products of elements of a list.
 - (b) Write a python program to find GCD of two numbers.
14.
 - (a) Write a Python Program to Print the Fibonacci sequence
 - (b) Write a Python Program to Check Leap Year
15. Write a Python Program to check string entered by user is palindrome or not.
16. Write a Python Program to print all Prime Numbers in an Interval.

17. Write a Menu driven program in Python to implement simple banking application.
Application should read the customer name, account number, initial balance, rate of interest, contact number and address field etc. Use Object Oriented Programming. It should have following methods.
1) createAccount() 2) deposit() 3) withdraw() 4) computeInterest()
18. Python Program that prints all real solutions to the quadratic equation $ax^2+bx+c = 0$.
Read in a, b, c and use the quadratic formula. If the discriminate b^2-4ac is negative, display a message stating that there are no real solutions.
19. Write Python program to implement different types of Exceptions.
20. Write Python program to create our own exception and raise it when needed.
21. Write a Python Program to create a binary file and store a few records.
22. Write a Python Program to randomly access a record from a file.
23. Write a Python Program to create phone book with names and phone numbers.
24. Write Python programs to implement Inheritance and Polymorphism with Method overloading and Method Overriding.
25. Write Python programs to implement Classes, Object, Static method and inner class.
26. Write Python program to implement different types of Exceptions.
27. Write a Python programs to implement different file handling operations using pickle.
28. Write a Python program to implement GUI Canvas for creating House Application using Tkinter.
29. Write a Python program to implement GUI Canvas Application using Tkinter.
30. Write a Python program to implement GUI Frame for creating registration form and displaying entered details on same Frame using Tkinter.
31. Write a Python program to implement GUI Frame for creating sign up form and displaying entered details excluding password on same Frame using Tkinter.
32. Write a Python program to implement CRUD Operations using Mysql Python Database Connectivity.
33. Write a Python program to implement Client-Server programming using TCP Socket.
34. Write a Python program to implement Client-Server programming using UDP Socket.
35. On Tkinter Form: Take a Login and Password from the user and display it on the labels which appears only on clicking OK button and clear both the labels on clicking RESET button

Login		[] X	
Login :	<input type="text"/>	Password :	<input type="text"/>
		<input type="button" value="OK"/>	<input type="button" value="RESET"/>

36. Write a Python Program to create a registration form on an Tkinter Form with Mysql Databases.
37. Update the salary of all the employees in the emp table with an addition of 1000 Rs
38. To get the employee id from the user input and display of the details of employees in the emp table
39. Write a Python program to create three push buttons and change the background of the frame according to the button clicked by the user.
40. Write a Python program to create a horizontal scroll bar and attach it to a text widget to view the text from left to right.