

Set1

1. Create a class student, display the MCA Students list(name of the students) by merging two lists MCAS1 and MCAS3.
 - A. Insert a student in MCAS1
 - B. Sort the students in MCAS1 and MCAS3
 - C. Search for the student in MCAS3

2. Create a class employee use the concept dictionary.-
 - A. display the empid and name
 - B. insert an employee
 - C. delete an employee
 - D. sort the order
 - E. search for an employee

3. Define a class to represent a bank account . include the following details like the name of the depositor, account number , balance amount in account . Write methods to assign initial values to deposit an amount. Withdraw the amount after checking the balance. Display all the details.

4. Create a class Checker in this class enter 2 lists of integers.
 - A. Whether list are of same length
 - B. Whether list sums to same value
 - C. Whether any value occur in both

5. Create a class number and enter the list of n numbers in list1.Using the list comprehension concept create another list2 of even numbers, then create list3 of numbers not divisible by 3.

6. Create a class and insert 10 vegetables and fruits in a list. Sort the list , search for a particular fruit. Update the dictionary with the total number of vowels found in each item of the list.

SET 2

1. Create a class `MCAS1` using the `get` method and enter their name roll number . Create a subclass `Test`, enter the mark details, calculate the percentage and also display their grades.
2. Create a class `vehicle` use the concept dictionary:-
 - A. Display the vehicle type as Key.
 - B. In the list insert all the available brands
 - C. Delete the type
 - D. Search for the type and display brands
3. Enter the list of n numbers in `list1`. Using the list comprehension concept create another `list2` of odd numbers, then create `list 3` of numbers not divisible by 7.
4. Define a class to represent a company . Include the following details like the name of the employee, employee code , salary amount . Write methods to assign initial values to all the variables. Company has planned to give a New Year bonus to the employees based on the salary. Display the employee details with the salary .

1000 rupees to all	
Below 20000	10%
21000 to 30000	12%
310000 above	15%

5. Write a program to insert 5 states in a set1 and 5 states in another set display states present in both sets ,display states in set1 but not in set2 and display all states in both sets. Update a dictionary with the total number of vowels found in each item in the set. Where the key will be the state.

6. Create a class 'Person' with data members Name, Gender, Address, Age and a constructor to initialize the data members and create its subclass 'Employee' it contains data members like Empid, Company name, Qualification, Salary constructor,initialize the members using constructors.Create a subclass 'Teacher' that inherits the properties of class Employee and contains its own data members like Subject, Department, and contains constructors and methods to display the data members. Display the details of the teachers.

7. Write a program in python to help Raju to pay his electricity bill

Home			Company	
Default pay Rs 250			Default pay Rs 500	
First 50 units	Rs 100		First 50 units	Rs 350
51 units to 150 units	Rs 5 per unit in addition		51 units to 150 units	Rs 25 per unit in addition
151 units and above	Rs 10 per unit in addition		151 units and above	Rs 40 per unit in addition