

BSc.IT. 3rd Sem
Object Oriented Programming (304) Assignment-II

1. Develop a program to generate a class of string and perform various operations on it.
 - a. Length of string.
 - b. Upper case.
 - c. Lower case.
 - d. Comparison.
 - e. Copy.
 - f. Concatenation.
 - g. Reverse.
 - h. Palindrome.

2. Develop a program to generate a class of 1-dimensional array and include all its functionalities.
 - a. Insert.
 - b. Search.
 - c. Bubble Sort.
 - d. Sum of array elements.
 - e. Average of array elements.
 - f. Find Maximum value from array elements.
 - g. Find Minimum value from array elements.
 - h. Swap first and last element of an array.

3. Develop a program for class date and time and include all its functionalities.
 - a. Date.
 - b. Time.
 - c. Format Date.
 - d. Difference between 2 dates.
 - e. Check Leap year.
 - f. Retrieve Day.
 - g. Retrieve Month.
 - h. Retrieve Year.
 - i. Retrieve Hour.
 - j. Retrieve Minute.
 - k. Retrieve Second.

4. Develop a program for class Employee with properties: code, name, designation, date of birth as DOB, date of joining as DOJ, basic salary, hra, da, dept.

[Calculate da and hra accordingly: (1) If basic salary is less than 30000 then da=60%, hra=20% (2) If basic salary more than 30000 and less than 45000 then da=70%, hra=30% (3) If basic salary more than 45000 then da=85%, hra=40%]

The behavior of Employee should include:

- a. Accept the input from the user.
 - b. Display the data.
 - c. To calculate Total salary.
 - d. To search for the employees who work in 'Sales' Dept.
 - e. Calculate the total experience of employees.
 - f. Search the employees who have experience more than 5 years.
5. Develop a program for class student with properties: rollno, name, marks of 3 subjects, total, percentage and grade. The behavior of student should include:
- a. Accept the input from the user.
 - b. Display the data.
 - c. Calculate the total marks obtained, percentage and grade of each student.
 - d. Display the student who secured 1st rank.
6. Write a program to format a float number using manipulators.
7. Develop a class Calendar with its attributes and functionalities.
8. Develop a class Book with its attributes and functionalities.