

PROGRAM LIST

FUNCTION OVERLOADING

- (i) Write a program to do the following using function overloading.
- (a) To implement area of circle.
 - (b) To implement area of rectangle
 - (c) To implement area of triangle

CLASSES & OBJECTS

- (i) Declare a class employee of 10 arrays of objects having following members

Private()	Members
Empcode	integer
Empname	20 character
Empdesig	20 character
Empsalary	float
Hra, da	float
Cal_da()	A function to calculate da with void return type public member function of class employee
input_data()	function to accept values for empcode, empname, empdesign, empsalary, hra, da
Display (void)	function to display all the data member on the screen & invoke input_data()
Void cal_hra(void)	A function to calculate house rent allowance
Void cal_gross (void)	A function to calculate gross salary

- (ii) Write a program to input on students information & to do total & grade calculation using class.

CONSTRUCTOR & DESTRUCTORS

Define a class Play in C++ with the following specifications:

Private members of class **Play**

Playcode	integer
PlayTitle	25 character
Duration	float
Noofscenes	integer

Public member function to class **Play**

- A constructor function to initialize Duration as 45 and Noofscenes as 5
- **Newplay()** function to accept values for Playcode and PlayTitle
- **Moreinfo()** function to assign the values of Duration and Noofscenes with the help of corresponding values passed as parameters to this function.
- **Shoplay()** function to display all the data members on the screen

FILE HANDLING

- (i) Write a program to count the presence of a word “do” in a text file “memo.txt”.
Example:
If the content of the file “MEMO.TXT” is as follows:
I will do it, if you
request me to do it.
It would have been done much earlier.
The function COUNT_DO() will display the following message:
Count of – do – in file:2
Note: In the above example, ‘do’ occurring as a part of word done is not considered.
- (ii) Write a program in C++ to count and display the number of lines starting with alphabet ‘A’ present in a text file “LINES.TXT”.
Example:
if the file “LINES.TXT” contains the following lines,
A boy is playing there.
There is a playground.
An aeroplane is in the sky.
Alphabets and numbers are allowed in the password.
- The function should display the output as 3
- (iii) Create a structure Employee:
Name - 20 character
Salary - Float
Empno - 4 Character
Write a function to create file “tempEmp.Dat” which will copy the Employee records from file “Emp.dat” in reverse order.
- (iv) Write a program to search any employee information from the file.

- (v) Write a program to delete any employee information from the file.
- (vi) Write a program to modify any employee information.
- (vii) Write a program to appends information to a file.
- (viii) Write a program that displays the size of a file in bytes.
- (ix) Write a program that copies one file to another.
- (x)

ARRAYS

- (i) Write a program to demonstrate a linear search method of element in an array.
- (ii) Write a program to find an element with binary search method in an array list of range. Note that before sorting, your list range should have been sorted.
- (iii) Write a program to insert an integer value in an array named range in a particular location.
- (iv) Write a program to delete an integer value from an array named range of a particular location.
- (v) Write a program to sort an array using selection sort.
- (vi) Write a program to sort an array using bubble sort.
- (vii) Write a program to sort an array using insertion sort.
- (viii) Write a program for MERGE sort operation by using two sorted arrays in ascending order.

DATA STRUCTURE

- (i) Write a program to create and traverse the linked list. The linked list contains data of type integer.
- (ii) Write a program in C++ to perform the PUSH AND POP operation on linked stack. The stack contains data of type integer.
- (iii) Write a program to create a queue using linked list to perform the addition, deletion, and display operations.