

Roll No.
Name of the Student:
Batch:
Date of Submission:

ASSIGNMENT NO: 1

Aim:

To demonstrate the use of objects, classes, constructors and destructors using C++ and JAVA.

Problem Statement:

Develop an object-oriented program to create a database of employee information system containing the following information: Employee Name, Employee number, qualification, address, contact number, salary details (basic, DA, TA, Net salary), etc. Construct the database with suitable member functions for initializing and destroying the data viz. constructor, default constructor, Copy constructor, destructor. Use dynamic memory allocation concept while creating and destroying the object of a class. Use static data member concept wherever required. Accept and display the information of Employees.

Objectives:

1. To study various OOP concepts
2. To acquaint with the use of objects and classes in C++ and Java.
3. To learn implementation of constructor, destructors and dynamic memory allocation

Theory:

Explain following concepts with their syntax and appropriate example in C++ and Java

- Class
- Object
- Default, Parameterized and copy Constructor
- Destructor
- Use dynamic allocation and deallocation

Algorithm:

1. Start
2. Create Employee class
3. Declare appropriate data members and define member functions
4. Accept multiple employee data using array of object
5. Show usage of default constructor and display data
6. Show usage of parameterized constructor and display data
7. Show usage of copy constructor and display data
8. End

Platform:

- Windows / Linux
- Eclipse IDE with C++ and Open Source Java Programming tool like Eclipse Editor/Netbeans.

Input:

- Number of Employees for enrollment
- Emp_Id, Emp_Name, Emp_Qualification, Address, Contact_No and Salary

Output:

- Employee data is displayed with member function and different type of constructors

Conclusion:

Thus, learned to use objects, classes, constructor and destructor and implemented solution of the given problem statement using C++ and Java.

FAQs:

- 1) What are classes?
- 2) Explain : Array of Objects
- 3) Explain when to use different types of constructors?
- 4) Explain use of static member functions
- 5) How java program is executed?
- 6) What is the use of JVM?
- 7) What are the different control statements used in C++ and Java?
- 8) Write couple of examples/applications suitable to use OOP concepts specially use of classes, objects and constructors.

***Attach copy of Implemented C++ and Java Code with snap of output**