

\* Abject Ariented Programming (OOP) - Practical Number - 2 Name: - Shaustuch Shrikant Shabra. Class: - Second Year Engineering. Div: - A Roll Number: -Department: - lamputer Department, Pollege: - AISSMS'S IOIT, Title:-Demonstrate basic concepts of object oriented programming for a class to store details of students. Abjectives: -1) To understand use of different types of constructor and destructor.
2) To understand use of static members and inline keyword.
3) To understand this pointer, dynamic memory allocation operators like new and delete. Problem Statement:
Develop a program in C++ to create a database of student's information system containing the following information: Name, Roll Number, Class, Division, Date of Birth, Blood group, Contact address Telephone number, Driving License number, and other. Constructor the database with suitable member functions. Make use of destructor, static member function, friend class, this pointer, inline code and dynamic memory allocation operators—new and delete as well as exception handling.

students will be able to demonstrate different types of constructor and destructor.

2) Student will be able to demonstrate use of static member and inline keyword.

3) Student will be able to demonstrate this pointer, dynamic memory allocation operators like new and delete.

Hardware Requirement: Any CPU with Pentium Processor or similar, 256 MB RAM or more, 1GB Hard Disk I or more.

Software Requirement:64 bit Linux/Windows Aperating System, G++ compiler.

Theory:
lonstructor
lonstructor is a special member function ruhose task is to

initialize the objects of its class.

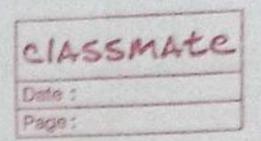
Characteristics of a constructor
1) They should be declared in the public section.

2) Claristructor name and class name must be same.

3) They cannot be inherited.

4) They cannot be virtual.

Types of Constructor - 1) Default Constructor
2) Parameterised Constructor



Destructor is a special class function which destroys the object as soon as the scope of objects ends. The destructor is called automatically by the compiler when the object goes out of scope.

Allocation of memory:

There are two ways that memory get allocated for

data storage:
1) Compile Time (or static) Allocation:
Me

Allocated by the compiler. Exact size and type of storage must be known at compile I time. For standard array I declarations, this is why the size has to be constart.

2) Dynamic Memory Allocation:

Memory Allocation:

run time dynamically allocated space usually placed in a program I segment I known as the heap or the free store.

1) breate a class named student with data members as required.
2) breate the object of classes with default constructors, copy constructs
3) Define two member function wiz set data, display data.
4) Define static member function increment count, show dold count.
5) Use this pointer to call display.
6) Initialize all student records, and display them.

How many student you have?

	CIASSMATE Date: Page:
Name: - Kaustubh.	
Mol Munder: 20. Plass: - SE	
Siw:-A	
Chone: - 9168100204	
Date of Birth: - 29052001. Blood group: -	
Blood group:	
Thanks you for deleting details.	
Conclusion:- Constructors and distructors saves memory so as a concentration of distructors are distructors.	n be used to
Oreste database efficiently.	