

DELHI TECHNOLOGICAL UNIVERSITY



# OBJECT ORIENTED PROGRAMMING

PROJECT PRESENTATION

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# ATTENDANCE MANAGEMENT SYSTEM



# CERTIFICATE

- ◆ This is to certify that, Udaykumar Khemewar (2K19/CO/417) And Tanishq Kinra - (2K19/CO/405) of Batch A6 , have done their project on Attendance Management System , under supervision and guidance of Ms. Diksha Ruhela ma'am, teacher of " Object Oriented Programming " during academic year 2020-2021.

Ms. Diksha Ruhela



# Acknowledgment

- ◆ We would like to express our special thanks to our teacher, Ms. Diksha Ruhela , who gave us the golden opportunity to do this wonderful project on the topic "ATTENDANCE MANAGEMENT SYSTEM", which also helped us in knowing about so many new things.



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# Introduction

- ◆ We have studied OOPs concepts in C++ language alot, and now here we come to the real life problem i.e Online attendance of student ( by replacing old register attendance ) . Here we have used OOPS concepts to develop this project.
- ◆ Further we have illustrated all the processes involved in "Attendance Management System". The presentation will give the detailed information of various functions used in the project.



# OVERVIEW OF C++

- ◆ C++ is an object-oriented language based on the C programming language. It can be viewed as a superset of C. Almost all of the features available in C are also available in C++.
- ◆ However, C++ is more than just an extension of C. Its additional features support the programming style known as object-oriented programming. Several features that are already available in C, such as input and output may be implemented differently in C++.
- ◆ In C++ you may use the conventional C input and output routines or you may use object oriented input and output by using the I/O Stream class library.



# Purpose of this project

- ◆ To make the Attendance system more efficient and effective..
- ◆ To provide a user friendly environment where user can be serviced better.
- ◆ Make functioning of marking attendance faster.
- ◆ Provide a system admin where the students can't escape/miss from attendance.
- ◆ To minimise the loss of attendance record.



# Concepts used for project from c++

- ◆ Classes and Objects
- ◆ Encapsulation
- ◆ Constructors
- ◆ File Handling



# Classes and Objects

- ◆ The classes are the most important feature of C++ that leads to Object Oriented programming. Class is a user defined data type, which holds its own data members and member functions, which can be accessed and used by creating instance of that class.
- ◆ The variables inside class definition are called as data members and the functions are called member functions.
- ◆ Class is mere a blueprint or a template. No storage is assigned when we define a class.
- ◆ Objects are instances of class, which holds the data variables declared in class and the member functions work on these class objects.



# Encapsulation

In normal terms Encapsulation is defined as wrapping up of data and information under a single unit. In Object Oriented Programming, Encapsulation is defined as binding together the data and the functions that manipulates them.

Encapsulation also lead to data abstraction or hiding. As using encapsulation also hides the data.

In C++ encapsulation can be implemented using Class and access modifiers.



# Constructors

- ◆ A constructor is a member function of a class which initializes objects of a class. In C++, Constructor is automatically called when object(instance of class) create. It is special member function of the class.
- ◆ In our program, we have used a constructor to give Introduction of our project.



# Header Files

- ◆ Header files contain definitions of functions and variables ,which is imported or used into any C++ program by using the pre-processor `#include` statement.
- ◆ Header file have an extension which contains C++ function declaration and macro definition.
- ◆ When we want to use any function in our C++ program, then first, we need to import their definition from C++ library, for importing their declaration and definition we need to include header file in program by using `#include`.
- ◆ Header file is included at the top of any C++ program.



# Header Files we used in our project

- ◆ `#include <iostream> //input, output stream`
- ◆ `#include <string> //string class , c_str() , getline()`
- ◆ `#include <fstream> //file handling operations`
- ◆ `#include <stdlib.h> //exit()`
- ◆ `#include <stdio.h> //remove, rename`



- ◆ Getting started towards code, we have created two different classes to whom this product will be used upon. This programs features can be briefed upon these classes as :

- ◆ Teacher who will be acting as the administrator.
- ◆ Student of the DTU will be accessing the only Attendance Marking system

## Attendance Management System

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1. Student Login
2. Admin Login
0. Exit

Enter you choice:



# The features that are available to the Teachers ( Admin ) are:

- ◆ A Teacher can register the student.
- ◆ Can view the different categories of students registered in the Attendance system.
- ◆ Can check the Attendance report of the any student.
- ◆ Can access all the accounts of the students.

## Attendance Management System

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1. Admin Login
2. Student Login
0. Exit

Enter your choice: 1

----- Admin Login -----

Enter username : tanishq

Enter password : uday

1. Register a Student
2. Delete a student record
3. Check List of Students registered by username
4. Check presence count of student
0. Go Back <-



# The features available to the Students are :

- ◆ Can own a student account in the attendance system.
- ◆ Can put a request for an attendance mark.
- ◆ Can view the history of attendance marked by him previously.

## Attendance Management System

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1. Admin Login
2. Student Login
0. Exit

Enter your choice: 2

----- Student Login-----

Enter username : UDAY

Enter password : u

1. Mark Attendance for Today
2. Count my Attendance
0. Go Back <-

Enter your choice: █



Screen showing  
registration of a  
student by filling  
basic details

Enter your choice: 1

----- Form to Register Student -----

Enter Name : Udaykumar

Enter Username : uday

Enter password : u

Enter rollno : 417

Enter address : Nagpur

Enter father's name : GR

Enter mother's name : LK

Student Registered Successfully !!

Press any key to continue..



# Screen showing all the students registered by admin

Enter your choice: 3

– Check List of Student Registered by Username--

uday

tanishq

Press any key to continue..



Screen showing for  
marking  
attendance and  
counting total  
Attendance by  
student after  
logging in

----- Student Login-----

Enter username : uday

Enter password : u

1. Mark Attendance for Today
2. Count my Attendance
0. Go Back <-

Enter your choice: 1

Your Attendance has been marked for today !!

Press any key to continue..

1. Mark Attendance for Today
2. Count my Attendance
0. Go Back <-

Enter your choice: 2

Your attendace count is 1

Press any key to continue..



# Conclusion

- ◆ By this project we are sure the problems in the existing attendance record system would overcome the "ATTENDANCE MANAGEMENT SYSTEM" process made computerised to reduce human errors and to increase the efficiency. The main focus of this project is to lessen human efforts.
- ◆ The Admins and Students are given a particular unique id no. So that they can be accessed correctly and without errors. Our main aim of the project is to get the correct information about a particular student and Admin available in the system.
- ◆ The computerisation of the Attendance Management will not only improve the efficiency but will also reduce human stress thereby indirectly improving human recourses.



THANK YOU!!