LAHORE GARRISON UNIVERSITY

UNIVERSITY MANAGMENT

C++ CODING PROJECT WITH AN EDUCATIONAL FOCUS

HOSTED BY

AHTISHAM NASEER UZAIR

DESIGNED BY

UZAIR

AGENDA

- ACADEMIC MANAGMENT
- LIBERARY MANAGMENT
- FINANCE MANAGMENT
- MOVING FORWARD

UNIVERSITY MANAGMENT SYSTEM

ACADEMIC MANAGMENT

Hosted By Ahtisham

ACADEMIC OVERVIEW

Academic and department will manage and store all the data of students in department exit the program.

MENUS

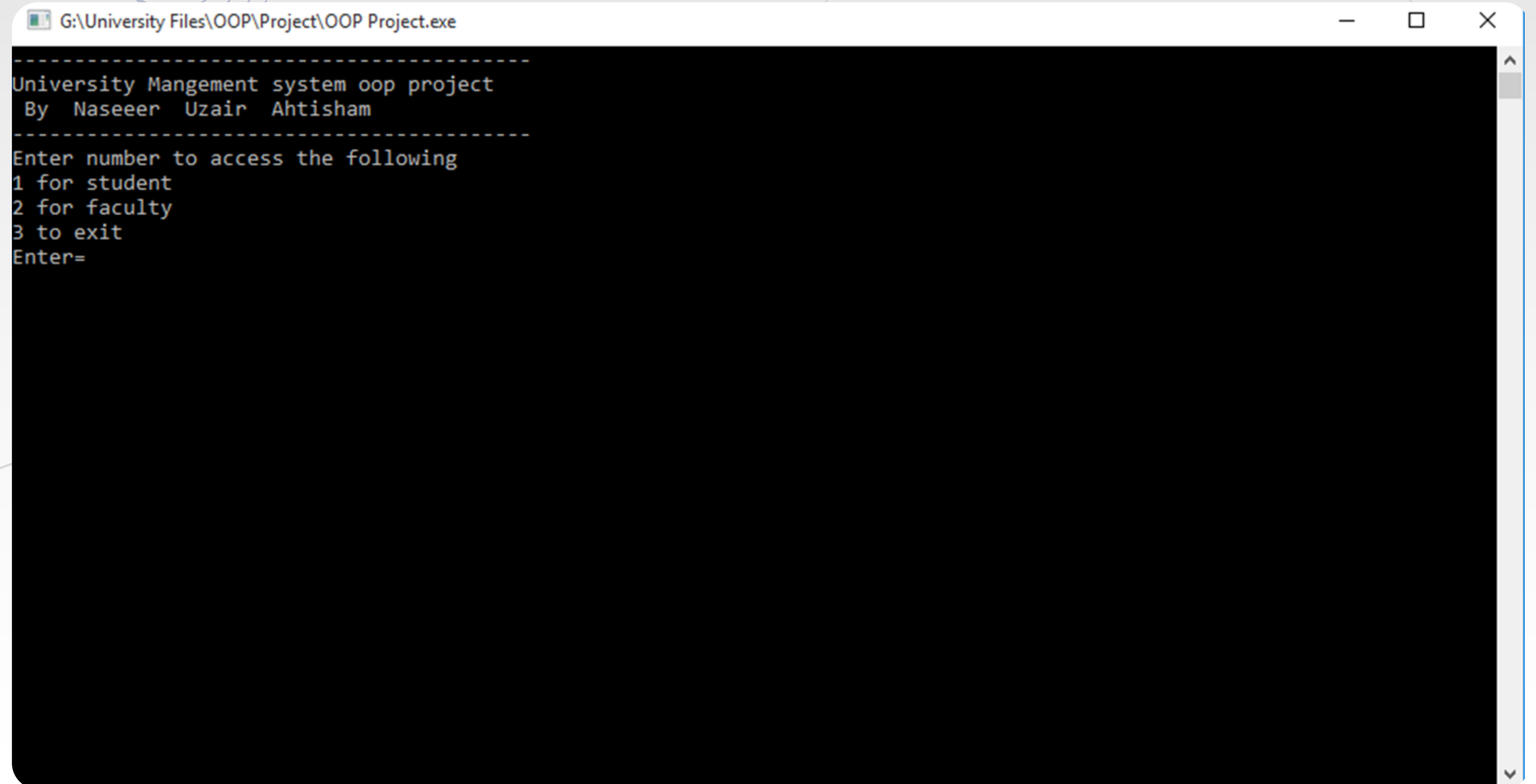This component have three menu

- Student
- Faculty,
- Exit.

STATEMENTS

- Cout statement
- Cin statement
- Goto label statement
- If else if statement

MAIN
WORKING

This program is using basic oop concepts. In this program there are three classes student, faculty and university. Student is the base class which contain all the member functions and variables for the student in the menu. Faculty and university are the child classes which are publicly inheriting student class. Faculty contain member functions and variables for faculty option in menu. There are three options in menu. First option is the student. After selecting student it will ask departments and after that it will ask semester and after than it will ask section and lastly the student record menu which will store and perform operations on data. Every student have two option to return to previous or main menu. Than 2nd option is faculty it will take the user to record menu of faculty to store and perform operations on data. The last and third one is the exit which will exit the program.

PROJECT OUTPUT


```
G:\University Files\OOP\Project\OOP Project.exe

------------------------------------------------
University Mangement system oop project
 By  Naseeer  Uzair  Ahtisham
------------------------------------------------

Enter number to access the following
1 for student
2 for faculty
3 to exit
Enter=
```

LIBERARY MANAGMENT

Hosted By Naseer

UNIVERSITY MANAGMENT SYSTEM

LIBERARY OVERVIEW

Library Management System is used for overview to streamline and enhance the efficiency of library operations, improve user experience, and ensure the proper management of resources and information.

CLASSES

This component have three classes
- Book Class
- Member Class
- Main Class

STATEMENTS

- Cout
- Cin
- If else
- Switches
- Loops
- Return statements

MAIN
FEAUTURES

There are three main feature use in it:

- Book Class: Manages books, handling tasks like setting details, checking availability, and tracking checkouts and returns.
- Member Class: Responsible for member information, including registration, tracking borrowed books, and managing returns.
- Library Class: Central class that integrates Book and Member functionalities, enabling operations such as adding books and members, and managing book loans and returns.

PROJECT OUTPUT

B:\Workspace\BSCS\02 - Sme

```
University Library Management System
1. Add Book
2. Add Member
3. Borrow Book
4. Return Book
5. Exit
Enter your choice:
```

FINANCE MANAGMENT

Hosted By Uzair

FINANCE
OVERVIEW

It includes two main sections: Forecasting and Spending. The Forecasting section predicts department budgets based on historical data, while the Spending section allows allocating funds to different departments and selling old technologies.

CLASSES

- Classes
- Forecasting
- ForecastGenerator
- Department
- TechnologyDep & MedicalDep
- SellOldTechnologies

STATEMENTS

- class, private, protected, public, static, unordered_map, string, double, cin, cout, if, else, switch, while, break, return.
- \<iostream\>, \<cmath\>, \<iomanip\>, \<vector\>, \<unordered_map\>.

MAIN
FEAUTURES

Forecasting Section:

The Forecasting class stores department information and is utilized by ForecastGenerator to calculate future budgets. User input is taken to create Forecasting objects for both Medical and Technology departments. Forecasting data is then displayed for user-specified departments.

Spending Section:

The Department class manages general department functionalities like displaying options and allocating funds. TechnologyDepartment and MedicalDepartment extend the Department class, providing specific options for each department. SellOldTechnologies handles selling old technologies with predefined prices. User input allows users to allocate funds to different departments or sell old technologies.

PROJECT OUTPUT

```
<=============================>
University Finance Management System - C++
<=============================>
Submitted to: Zainab Zafar
Submitted by: Muhammad Uzair (129)
<=============================>


Enter 'A' For Department Spendings
Enter 'B' For Department Forecasting: |
```

CTRL+L

Good work, team. Here's to more improved
practices for future projects.