CLO - 1

Object Oriented Programming

Assignment No. 1

Attention

- Make sure that you read and understand each and every instruction. If you have any questions or comments you are encouraged to discuss with your colleagues and myself.
- Any submissions after deadline will not be accepted.
- Submit a single .cpp file named in the following format: 191677_Assignment1.cpp.
- Make sure you also include your name and registration number at the top of your .cpp file in comments.

- **Please start early with the assignment so you can submit it on time.**

- **Good coding practices will earn a higher grade. For e.g. ensuring your code detects any incorrect inputs and handles any other type of possible errors efficiently will earn a higher grade.**

You must follow the submission instructions to the letter, as failing to do so will result in deduction of marks.

Note: Punishment for the plagiarism is to award a straight zero in this (or all) assignments. Both the parties involved in the plagiarism (with or without the knowledge of the plagiarism), will be considered equally responsible and be penalized.

You are required to use classes and functions for all the questions. Your main function should be as small as possible.

Total Marks = 15 **CLO - 2**

You are to write a code that simulates the working of a Cosmetic Store which has a small sales team. The store pays commissions to each member of its sales team every six months. The commission is based on the total sales generated by each employee and their position in the company. You need to design a code that calculates and compares the commissions earned by every member of the sales team and also clearly identifies the sales team member earning the highest commissions.

The following classes/ structures should exist in your code:

1. Class Salesperson
   - Contains variables: name, type, date of joining, comm_1, comm_2.
     All comm variables store the biannual commissions earned by the employee i.e. comm _1 stores the commission generated by the employee from Jan – June, comm_2 from July - December.
   - Contains a default constructor that initialises all private variables except the comm variables with User provided data. It sets both comm variables to 0;
   - A member function Calculate_quarterly_sales() that calculates six monthly commission according to the following table:
     - Entry Level employee [“type E”]: 5 % of total sales generated
     - Mid Level employee [“type M”]: 10% of total sales generated + 6000 rupees
     - Top Tier employee [“type T”]: 20% of total sales generated + 12000 rupees.

     Use this function to set the commissions earned by each employee in both six-month periods of a year (comm_1 and comm_2). You may ask the user to enter the total sales generated by the employee for each six-month period.

   - A display function that displays private variables to the screen.

2. A global function Highest_commission () that accepts an array of Salespersons and evaluates which Salesperson earned the highest commission in **each six-month time period** and displays it to the screen.

This should be the main function of your code:

```
int main()
{
Salesperson sales_team[ 4];
Highest_commision(sales_team);
}
```

Note: This is simply a guideline of how you may structure your code. You may create any additional variables, functions or structures if you feel the need. So get creative and get coding!