

Object-Oriented Programming and Design - Monsoon 2023

Assignment 2A – Classes and Objects

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This assignment carries a total of 60 marks. There are three questions, carrying 25, 25 and 10 marks respectively.

1. IIIT-Delhi has a total of five administrative departments and five academic departments. The administrative departments are: IRD, Academics, Student Affairs, Store & Purchase and Library. The first three administrative offices are headed by a dean, optionally assisted by an associate dean. Each of the officers have some distinct positions. Model the administrative structure by first going to <https://www.iiitd.ac.in/people/administration> and observing the positions assigned, and then the departments assigned to each person. The entire administrative structure is headed by the registrar. You may ignore the other administrative departments written on the webpage. You need to also write a main function that fetches the room numbers, telephone numbers and email addresses on giving the name of the person.
2. The structure of the academic departments is unique, with a single administrative officer assisting the head of departments in managing it. Again, model each department, with the assumption (for convenience) that each department has a total of five faculty, including the head. Again, you need to provide a way to fetch the room and telephone numbers of each of these people.
3. Based on the seniority level of positions in a department, create an escalation matrix, where any complaint that is not resolved within 3 days can be escalated to a higher level.

What and How To Submit

- The C++ program sources. Classes and inheritance must be used wherever appropriate.
- **Makefile** to compile the sources and generate the running binary for the shell. The Makefile should generate two versions of the binary – one for debugging and another for optimized execution.
- A readme text file, explaining the commands needed to build the file, and the format of the input files. If code is copied from anywhere else (not that copying from any other student is plagiarism, but using textbook or open-source code is allowed), that should be mentioned here.

- At least 4 significant commits on a **private** github repository, with proper descriptions of the commits. You may have as many commits as you wish.
- At least 3 branches on github, one of them called main.
- Checks on user input for validity is compulsory.
- Make the assigned TA the admin of the github repository, **and** submit the same code in zipped form on Google Classroom by the due date.

Late Submission Policy

- -0.25 per hour for the first 96 hours.
- Submissions beyond 4 days of delay would only be accepted with official leaves of absence.