

# Criteria A: Planning

## *Description of the scenario*

During the consultation, my client Anuj Kaistha explained that their organisation takes care of construction of buildings in and around the national capital region. The team of engineers in the company undertake several projects in the city. All the teams are managed and coordinated by the head office which houses the planning section, purchase section, and the accounts section. However, he also mentioned that the business has a relatively small staff consisting only of 12 employees in the head office and thus the business faces some problems **(Appendix 1)**.

A select few employees manually keep a record of the relevant data for various office expenses using google forms and spreadsheets. The calculations are then performed manually using this data.

I discovered that the business has issues with the current method as it takes time for the employees to physically track and calculate the office costs **(Appendix 1)**.

Additionally, employees miss out on information or duplicate some expenses, which leads to incorrect information about the office costs **(Appendix 1)**. The client requested to further implement features and improve the product by making the database accessible online due to the lockdown in India because of the coronavirus **(Appendix 3)**.

Mr. Kaistha has discussed this problem with me and after consultation, I decided to will effectively resolve the issue by creating a simple and user-friendly software.

(Word Count: 224)

## *Rationale for the proposed solution*

Initially, I thought of using MS Access to create the interface and database, however, this idea was discarded as Access does not provide extensibility which I required to make use of tools such as the event scheduler **(Appendix 3)**. I needed to make a simple and user-friendly interface and thus, after the consultation sessions, I decided that the ideal solution to solve Mr. Kaistha's problem would be to create a GUI software through the use of OOP as the client requested a user-friendly product during our consultation **(Appendix 2)**. OOP would allow me to easily resolve the

problem as it is flexible and gives me the freedom to add a variety of features to create a user-friendly software.

The medium I chose was java as it is simple, platform-independent, secure and user friendly. Moreover, it allows me to make use of the NetBeans IDE and thus makes the process of creating the product easier. I could use java to provide access levels which can restrict features depending on the level of authorization which fulfils the client's requirements **(Appendix 2)**.

I decided to use MySQL RDBMS along with the program as this would remove inadequacies and redundancies by making it easier to store data and ensure it is organised. Furthermore, it can make the use of queries, event schedulers, and reports along with other database features to meet the client's requirements **(Appendix 2)**.

Finally, I can create an online server with MySQL which will enable the users to work from home **(Appendix 3)**.

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### *Success criteria for product*

- The product makes use of graphical elements to provide intuitive and user-friendly interface.
- The database of the product is accessible through the internet to allow flexibility in workplace.
- The product has the feature of access control to restrict sensitive data and functions from users according to their level of authority.
- A data entry form to enter new data to add new projects and employees into the database.
- A method to modify or delete any data present in the tables of the database.
- A way to see a list of ongoing and upcoming projects and their start and end dates.
- The product can view the list of approaching order payments with their date and cost.
- A method to use the data to automatically calculate expenses.
- A report that allows you to view and print a list of the monthly and yearly expenses.