**Criterion A: Planning**

**The Scenario**

Mrs. Erlina is a Notary Public in Jakarta which requires calculating and keeping track of her clients’ taxes. Mrs. Erlina has been doing this part of her job in a traditional way which involves manually calculating the taxes and keeping all the paperwork for her clients in an archive. However, she’s been looking for a way to digitize this process so that it would be convenient for her and her employees. On August 29, 2019, Mrs. Erlina sat down to discuss with me this problem in detail *(refer to Appendix A - First Client Consultation)*.

The main issue with manually calculating the taxes is that it is very prone to human error that may have severe legal consequences. Mrs. Erlina makes it a habit for her to double-check all her calculations or have someone she trusts to check if a mistake has been made. However, this is not the best method to do so especially when a lot of paperwork needs to be done and the document contains sensitive information that should not be disclosed to anyone else.

Moreover, with all the piling paperwork Mrs. Erlina has in her office, it’s difficult to retrieve a specific document from her archive or access all of the resources that are specific to a client she is searching for. She has a filing system to organize her documents, but this means that all of her employees will need to follow the system which is not always successful, especially in a hectic situation.

**Rationale**

A desktop application is appropriate for Mrs. Erlina as it provides an easier and clearer environment for Mrs. Erlina and her employees to navigate through the resources in the application compared to a mobile application. Also, web applications rely on the internet connection, which can interrupt Mrs. Erlina’s workflow. Since Mrs. Erlina works with sensitive documents, users will need to log in before accessing the app so that the app can keep a record of the changes made and who made the change.

When making a new tax form, Mrs. Erlina can simply enter the required inputs and the app will programmatically complete the remaining fields which will ensure accuracy in the tax calculations. All of the documents that she made or uploaded to this app are then stored into the database which allows her to easily navigate/search through her documents.

This desktop app will be developed using Java as its modular software design is helpful for a project with multiple functionalities. The user interface will be made using JavaFX as CSS can be implemented to design a user-friendly interface. Netbeans IDE will be used for its debugging tools. MySQL database will be used as it is a relational database management system, suitable for this scenario as the data and tables are relational (example: Mrs. Erlina’s clients have documents), and can be administered using phpMyAdmin which has a user interface making it easier to manipulate the data. SQL will also be used to communicate with the database.

**Words:** 496

**Success Criteria**

1. New accounts for a user can only be registered with a randomly generated registration code made by the admin once they log in to their account first. New accounts are then saved in the ‘user’ table of the database.
2. Users can log in to their accounts by entering their username and password which will then be checked whether this account is registered in the database.
3. Users can easily search for a document or a client in the database through a search bar based on the title of the documents or names of the clients.
4. Clients have their own profiles which contain all of their documents
5. Users can create new client profiles, edit and delete them. The new clients will then be added to the ‘clients’ table of the database.
6. Users can easily create a new document for a client by entering the required inputs. The inputs will then be added to the ‘document’ table of the database. The app will programmatically complete aspects of the document that can be calculated.
7. Documents should be saved and presented/displayed in a PDF format when opened. Documents should also be saved in the database.
8. Users can delete, read, and edit existing documents. When deleting or updating the documents, these changes will then be reflected in the ‘document’ table of the database.
9. Users can upload documents to the app from their computer. The newly uploaded documents will then be stored in the ‘document’ table of the database.
10. Each client can have a picture identifying them and featured in the Clients Page, Overview Page, and when searched in the Search Page. This picture will be saved in the database.
11. A log page will outline all of the changes made in the application by detailing what is changed, who changed it, and when.