Criterion A: Planning

Defining the Problem:

My client for this Internal Assessment is Ms. Trinindita. Ms. Trinindita is the coordinator of the Model United Nations (MUN) program at an international school in South Asia. As an inter-school MUN coordinator, she communicates with external MUN supervisors and provides conference details to them. Typically, she uses large Excel sheets in order to manage all the data and manually sends participant information to schools. However, due to the growing MUN program, Ms. Trinindita has found a growing need to find an alternate solution to keep track of external participants and schools. Upon realizing the need for a change, Ms. Trinindita requested me to create a more effective automated solution to resolve this problem which would reduce communication through the use of an accessible online portal.

In order to further understand the problem, I conducted an interview with Ms. Trinindita (Appendix_Consultation). From this, I gathered that she would like "an online portal which her clients can easily navigate to access information regarding the conference and reduce [her] redundant email exchanges".

Throughout this IA, the term *client* refers to Ms. Trinindita. The term *user* refers to a teacher supervisor from an external school taking part in the annually hosted CISMUN conference. The term *delegate* refers to a student taking part in the annually hosted CISMUN conference

Rationale

After meeting with Ms. Trinindita (Appendix_Consultation), I have decided that an optimum solution to this problem would be to create a website app where multiple users can log in and view information regarding their delegates, access resources, and generate invoices. The information will be set through a separate admin account of the client. I plan to utilize an online database (using the MySQL database service) to store delegate information. This is because a database stored in the cloud has a low risk of data loss, high data security, and higher access speed for users online in comparison to a traditional database or excel sheets stored locally on the computer.

Additionally, I plan to use the node.js JavaScript Framework along with express.js to create servers and requests, in order to create a login system for users as well as an attractive and simple-to-use User Interface. I have decided to use node.js due to its high speed and support the framework offers, reducing the time delay of client-side web requests. Node.js will also be used to fetch query data from the database and perform and display arithmetic operations

on the data. Additionally, node.js allows for easier development of newer features by other developers due to its widespread popularity.

The use of an online database not only reduces the costs compared to a traditional database system but also this proposed system aims to automate the time-consuming process of manually sending information to the users and calculating costs, reducing the time spent by the client.

Word Count: 469

Success Criteria:

1. Appealing and simple user interface for the clients and users to access the database.
2. A comprehensive authentication system for the client and users to access the database
3. Creation of a relational database to stores account login details, committees, and delegates.
4. The client can add/delete/modify record in committees database
5. The client can add/modify delegates and assign a maximum number of delegates for each user.
6. The client can add/delete records in resources database.
7. Search facility that allows the client to search to find a specific delegate record.
8. Provide finance module that calculate the total revenue, costs, and profits to the client
9. Users should be able to access resources and modify information regarding their delegation
10. Provide contact form to users to communicate with the client
11. Provide user-generated invoice to displays the calculated breakdown of costs