## Topic Proposal Form

Strand: Computer Science Web Digital Design and Media 3D Modeling and Animation

Digital Video and Audio Design Web Game Development Web App Development

Proposed topic to be addressed:

## My topic incorporates a web-based application (database system) allowing students to capture and submit Y.E.S. volunteering hours online. There is no need for students to print their form and get approval from the volunteering organization. Upon submitting the form online, the workflow will kick-off which sends an email notification to an authority with a clickable link to either approve or reject the submitted form. Based on the response, the submitted Y.E.S. form can either be auto approved or rejected. This application eliminates the paper-based tedious manual approval and the management process and makes the entire process eco-friendly.

Hardware/Software possibilities:

* **Hardware:** Windows 64-bit web application server accommodating database server as well.
* **Front-end Application Software:** Visual Studio with C#, ASP.NET.
* **Back-end Database:** Microsoft SQL Server or MySQL or Microsoft Access Database.

Previous experience with topic:

I am aware of the paper based Y.E.S. hour process currently being followed at Clements High School and other high schools. I have coding experience in Java and have basic HTML experience.

Possible problems to be addressed within this topic:

As I begin working on this project, I anticipate a significant learning curve because this web-based application development is going to be significantly different compared to a typical desktop-based Java application that I am used to. Also, databases are a new concept compared to the memory storage I used in Java, for e.g. ArrayLists. In addition, Visual Studio is a new development IDE and will take some time to get myself used to it. With all these new tools and concepts, I anticipate some challenges, however, pushing myself to the limit will allow me to learn more as I love to challenge myself. I do anticipate some time constraints knowing that most of the concepts are fairly new to me and will require great amount of research and going through some online tutorials.

Possible products to be created to address problem:

A web-based volunteering hours application with back-end database would allow students to enter Y.E.S. hours online instead of completing and submitting a paper form. Other possible products could be a mobile or a desktop-based application.

**Instructor Use Only:**

\_\_\_\_\_\_ Approved

\_\_\_\_\_\_\_ Approved with changes described below

\_\_\_\_\_\_\_\_ Not Approved – resubmit

Changes needed: