

Undergraduate Final Year Project Proposal

PROJECT PROPOSAL

Research and develop project to build an e-commerce website using Node.js to support a small business selling products online.

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1 Overview

In this era of rapid technology development, commerce is also applied on sales applications or websites, this is called e-commerce, and our project will build an e-commerce website. for a small business so that they can trade products on an e-commerce platform that is popular all over the world. In recent years, the growing speed of websites has helped commercial industries become more convenient in areas almost facing difficulties during the COVID-19 pandemic in 2020. This time, we will develop an ecommerce website. This is a website development project that sells clothing products to a clothing shop called ThongShop. Because during the quarantine period, members of this company could not go to the shop to buy products, so we were asked to make a website so that their customers could access the website at any time and have view their products, and checkout for products easily. This is a very interesting project, it is special feature is to assist customers who have a need to buy things during a pandemic and are socially isolated in a short time, so this project is very meaningful because it ensures the safety of both customers and sellers during the COVID-19 period. Therefore, we can spend a lot of effort to make this product well as we can. We will use HTML, CSS, JavaScript to make the interface of our website, here are the three basic things to create a complete interface for the website. To operate the website, we will not stop at the interface,

but also need the backend to do the tasks that require the calculation and actions of the website. For example, if we work on a clothing website, the backend will do things like adding products to the shopping cart, checkout, payment, so on. And the backend, we will use Node.js to develop an e-commerce website. So, this is an extremely simple approach for us and for those who are just starting out with e-commerce websites. We choose with the reason, Node.js uses Google's V8 JavaScript engine to execute code, and an oversized percentage of the bottom modules are written in JavaScript. Node.js contains an integrated library to permit applications to act as an online server without software like Apache HTTP Server or IIS. NPM may be a pre-installed package manager for the Node.js server platform. It is accustomed install Node.js programs from the NPM registry. The package manager allows the community to publish and share open source Node.js libraries and simplify library installation, updating, and not installing. Ultimately, our choice is the logical choice in the construction and operation of this project. (About | Node.js, 2021)

2 Aim

The goal is to develop this product for commercial purposes for an organization wishing to sell at any time, and the customer can buy easily, quickly without having to waste time going directly to the store.

3 Objectives (44 Weeks)

3.1 Objective

Activities: Research on the e-commerce website market.

3.1.1 Learn how to build and find the necessary components out to create an e-commerce website. [1.0]

3.1.2 Research about tools to build an e-commerce website. [1.0]

3.1.3 Refer to some e-commerce websites to learn and get more of the required requirements for our project. [1.0]

3.1.4 Evaluate our requirements selected to consider for project. [1.0]

3.2 Objective

Activities: Learn about HTML, CSS, and JavaScript to build frontend for website.

3.2.1 Find reliable HTML, CSS, JavaScript literature on the Internet and books about it. [1.0]

3.2.2 Read and learn about HTML, apply HTML to the exercises you earn to ensure you can understand HTML. [1.0]

3.2.3 Read and learn about CSS, apply HTML and CSS to build a layout of website. [1.0]

3.2.4 Read and learn about JavaScript, apply HTML, CSS, and JavaScript to build a simple website. [1.0]

3.2.5 Learn about JavaScript related libraries so you can apply them to this project. [1.0]

Deliverables:

3.2.1 HTML, CSS, JavaScript documentation.

3.2.2 Can cut HTML from PSD file.

3.2.3 A layout of website by HTML and CSS.

3.2.4 A simple website by HTML, CSS and JavaScript.

3.2.5 Have knowledge of current popular libraries such as Angular, React, Vue and others.

3.3 Objective

Activities: Find out Node.js to build backend for this project's website.

3.3.1 Read Node.js books and docs to get the basics of it. [1.0]

3.3.2 Apply what we have learned using it as a backend for your website. [2.0]

3.3.3 Learn and use the Node.js libraries that can be applied to real-world projects that make code management or construction easier. [2.0]

Deliverables:

3.3.1 Node.js documentation.

3.3.2 Build website with Node.js and MongoDB.

3.3.3 Can use Node.js libraries to make it easier to perform functions of the website.

3.4 Objective

Activities: Project implementation.

3.4.1 Give the requirements needed to create an e-commerce website. [2.0]

3.4.2 Design diagrams to describe in detail the functions included in the project. [2.0]

3.4.3 Design the wireframe for the website to visualize its interface. [2.0]

3.4.4 Build a complete website. [18.0]

3.4.5 Test, fix bugs, deploy to host. [4.0]

Deliverables: A report on our project, including minimum requirement lists for this project, diagrams to show the project's functions, the project's flow, website design images, test plan and test log of the project, official product photos after completion and a complete website is released on the host.

4 Legal, Social, Ethical and Professional

Legally, ThongShop will use Nodejs to make an e-commerce website for business. The references in this project are all available on the Internet and free of charge. This project is owned by us and the University of Greenwich. Social issues on this site, we sell clothing products to people aged 20 to over 40, so our images and content will not contain sensitive content, and affect the fine Traditions and customs of Vietnam. This project is very important to us because this is one where we put our whole heart into it, so we don't do unethical things. After the project is completed, to have a certain professionalism, we will not disclose any information related to this project to a third party without any consent from the manager. by Greenwich. Learn, learn, research new things to update this project, respect both the positive and negative comments to get a variety of perspectives on our project, then consider provide solutions to fix problems that have occurred. (Shivani, 2021)

5 Planning (see appendix A) (search about this project, write proposal, write final project....)

Describe your approach to this project and propose how you plan to control the project. Turn the time estimates above into a **Gantt chart** or schedule bearing in mind that some activities may have dependencies and some may run concurrently.

6 Initial References

1. Node.js. 2021. *About | Node.js*. [online] Available at: <https://nodejs.org/en/about/> [Accessed 17 March 2021].
2. Satheesh, M., D'Mello, B. and Krol, J., n.d. *Web development with MongoDB and NodeJS*.
3. Shivani, H., 2021. *Available online at: www.ijarcse.com A Study of Ethical and Social Issues in E-Commerce*. [online] Citeseerx.ist.psu.edu. Available at: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.473.6654> [Accessed 19 March 2021].



APPENDIX A - SCHEDULE OF WORK

This should show the schedule of tasks, associated descriptions and mini-deadlines. Remember failure to plan, is planning to fail. It is much harder without a detailed plan – as many students will testify to.

