**Undergraduate Final Year Project Proposal**

**Investigation of Next.js for a platform that specializes in long-term rental properties in HCMC.**

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# Overview

In recent years, the demand for real estate has been constantly increasing and there has never been any sign of cooling off. There is a growing demand for accommodation/accommodation (apartments) in major cities, especially Ho Chi Minh City.

However, finding a hostel/room (or apartment) is very difficult because there is a huge amount of information online on the internet that is related or unrelated to this field makes you not only waste time but also annoying when finding this unsuitable site and having to find another web again and repeat it many times. In addition, between an information matrix but there is too little new information, quality articles and no website has screened information about the real estate sector to help buyers easily compare locations, price with my budget. In addition, on the part of the owner of the inn/inn (apartment), sometimes it is not known by the tenant or the status of the inn/inn (apartment) will be rented.

Realizing that the above requirement is necessary and the reality mentioned above, I want to make a website that aims to make it easiest for the tenants and the owner of the inn/apartment to find each other the most convenient. This will be a professional and prestigious channel in providing apartment rental information in Ho Chi Minh. The updated and detailed information on the website will help connect tenants and those wishing to rent an apartment to make a perfect place to live.

Guests who rent a room (apartment) will have access to the facility to view the room, choose the room, and book online through the most realistic pictures, information, and price of the room (apartment).

Each website platform has its own language for development. And in this project, I chose a compact Framework built on React that helps us to easily and quickly build a Server-Side Rendering application (to overcome the weaknesses of Single Page Application) that is Next.js. Next.js offers a lot of useful features, solving the downsides of building a pure React application. Especially bringing better SEO capabilities that CSR does not have, user-friendly on the first-page load. Both Next.js and ReactJS are for UI purposes so for me how to style the components in our application is one of the first things I am interested in. So, to do this I have chosen SCSS. It helps me to write CSS in the way of a programming language, has a clear structure, is clear, and is easier to develop and maintain code. And what's special is that I'm going to use React 360 on the project. I will apply it to the detailed description of the rental property. From there, it will help users have the most authentic view of the house they will be renting.

# Aim

This project is designed to make the easiest and most convenient connection for room-tenants and inn / inn-room owners (apartments) with high technologies.

# Objectives

**3.1 Knowledge of Web programming**

**3.1.1 Find out definition, types and basic programming concepts of Web**

**3.1.2 Study the structure and characteristics of real estate website**

**3.1.3 Evaluate some real estate website**

**3.1.4** **Learn deeply about design for the website**

**3.1.5 Study Server- Side Rendering**

**3.2 Investigation of Next.JS and React**

**3.2.1 Look for general information about Next.JS**

**3.2.3 Study Routing and Link in NextJS**

**3.2.4 Study Fetch data from server**

**3.3 Evaluation of Typescript for web engine**

**3.3.1** **Find out more about other satellite knowledge around Next.JS**

Because NextJS is based on ReactJS, it is necessary to pre-equip the relevant background knowledge to be able to use NextJS optimally. And the satellites around it include React, React Hooks, Typescript, and a bit of Server-side programming thinking as Back End Developer for building APIs.

**3.3.2 Find general information about Typescript, React, React Hooks.**

**3.3.3 Study how to write games with Typescript, React, React Hooks.**

Next.js has long provided great support for TypeScript.

**3.3.4 Study the implementation and integration of Typescript with NextJs and React**

**3.4 Implementation of the project**

**3.4.1 Build website ideas and processes**

**3.4.2 Design the functions contained in the website**

**3.4.3 Design website interface**

**3.4.4 Website implementation**

**3.4.5 Check and fix errors in website**

# Legal, Social, Ethical and Professional

**Legal:**

* The technologies I use in this project are all published from the World Wide Web.
* My project will also rely on materials derived from free sources as well as legally acquired materials.
* I am the owner of this project, as well as the University of Greenwich.

**Social:**

* This project was undertaken to help people and not related to any business of unlawful and deceptive.

**Ethical:**

* The project is a result of my own efforts.
* Make sure there is no plagiarism in the project.

**Professional:**

* Under no circumstances should confidential information be disclosed or permitted to be disclosed, nor should that information be used for personal gain, or to benefit a third party, except under specific circumstances permitted by the University of Greenwich, or in accordance with the regulations.
* Keep my interests separate from the interests of authority in any situation that may lead to a conflict of interest.
* Accept honest criticisms of my work. Respect, and value other perspectives.

# Planning (see appendix A)

# Initial References