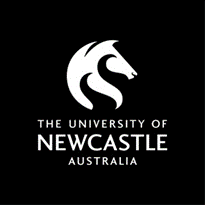
**THE UNIVERSITY OF NEWCASTLE**

**SCHOOL OF INFORMATION AND PHYSICAL SCIENCES**



**WORK INTEGRATED LEARNING COMP3851A – SEMESTER 1, 2024**

# **Project Plan**

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## **1. Background**

The decision to embark on this orientation website project stems from the critical need to address the challenges faced by first-year students at the University of Newcastle. The initial weeks of university life can be overwhelming, with students often feeling lost and struggling to navigate the various internal processes, courses, and assignments. The existing methods of information dissemination, primarily through face-to-face interactions and printed materials, have proven insufficient, leading to delayed understanding and potential setbacks for students. Recognizing this gap, the project aims to provide a comprehensive solution through a user-friendly orientation website. This website is all about helping first-year students feel more confident and informed. It's like a guide to make their start at university as smooth as possible, improving their overall experience. For instance, we have researched a few freshmen websites available in NTU, SMU and University of Houston.

## **2. Aims**

We aim on creating a user-friendly orientation website for first-year students at the University of Newcastle.Goals include creating a centralized hub with multimedia elements, implementing a dynamic system, ensuring inclusivity for all students, and fostering interactive engagement. Each goal is linked to specific deliverables, collectively enhancing the overall student experience.

The aims of this project are:

* **Aim 1 (Comprehensive Information Hub)**: Create a friendly orientation website that acts as a go-to source for info for first-year students at the University of Newcastle.
* **Aim 2 (Multimedia-Enriched Content)**: Spruce up the website with cool stuff like diagrams, photos and videos. This will add some excitement and give first-year students a better sense of things as they navigate through the platform.
* **Aim 3 (Dynamic and Adaptable System)**: Implement a full-stack development approach, ensuring the back-end hosts content for dynamic updates.
* **Aim 4 (Enhanced Inclusivity)**: Tailor the orientation website to cater specifically to the diverse needs of both local and international students.
* **Aim 5 (Interactive Student Engagement)**: Implement interactive features within the orientation website to enhance student engagement. This involves incorporating forums and discussion boards to encourage first-year students to actively participate and connect with each other.

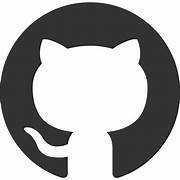
## **3. Methods and Activities**

**Content Management System**

The content management system for this project will feature a centralized admin page designed to streamline updates and modifications to the freshman page. The main admin interface will serve as the control hub, allowing administrators to make real-time changes to the content, including relevant information pertinent to first-year students. Once administrators input updates through the admin page, these changes will be implemented into the user-specific freshman pages. Utilizing a dynamic and efficient database architecture, the system will pull the most recent content from the admin page to ensure that users' freshman pages are consistently up-to-date.

**Project Management Tools**

We've picked out some handy tools to make sure our project runs smoothly as we create the orientation website for first-year students at the University of Newcastle. We will be using discord to handle our task management as it allows for multiple channels to discuss or note down different key points in our project—it's like our go-to spot for team discussions, updates, and sorting out problems on the fly. To ensure our codes are seamlessly working together, we will be using Github. It's our central hub for storing code, reviewing each other's work, and tracking any issues that pop up.



**Collaborative Platform**

We've chosen *Discord* and *GitHub* as our collaborative platforms for a dynamic and effective teamwork experience. Discord provides us with a real-time communication hub, allowing seamless and instant interaction among team members. Its intuitive interface, voice channels, and organized chat structure make it an ideal space for discussions, updates, and quick problem-solving, fostering a sense of unity within the team. On the other hand, GitHub serves as our central code repository, offering robust version control and collaboration features. Its user-friendly interface simplifies code reviews, enhances collaborative coding efforts, and ensures efficient management of project iterations. We're using Discord and GitHub to make our teamwork smoother and more connected. Discord keeps us talking in real-time with its chat and voice features, helping us stay on the same page. GitHub helps us to condense our work properly. Together, these tools create a friendly and efficient atmosphere where communication and coding go hand in hand, all to make our project a big success.

**Development Tools***Visual Studio Code:*

We will be using visual studio code as the development platform as it is user-friendly and has many features that enhance the quality of life for developing a web application.

*GitHub*:

We will be using Github as our main hub for our code as it allows for ease of collaboration.

*Node.js and npm:*

We picked Node.js because it allows us to use JavaScript on the server side, which opens up more possibilities for what we can do with JavaScript. And npm is like our library of tools and resources for our project.

*Browser developer tools Chrome:*

Used for debugging web pages, including JavaScript, CSS, and HTML. They are useful for inspecting code, monitoring performance, and optimizing web pages.

*Bootstrap CSS framework:*

These frameworks provide pre-designed styles and components.

*Database MongoDB:*

Simple and easy to use database

*API testing tools (such as Postman):*

Used to test and debug your API to ensure that the back-end service can correctly respond to front-end requests.

*Adobe XD:*

For designing the user interface and user experience of a website, we will design the user interface using this before implementing it in code.

*Image processing tool Canva:*

For editing images and graphics required for your website

**Development Approach**

This freshmen website project will be using the Agile SDLC Model due to its flexibility, which allows changes in project requirements, which is often needed in dynamic projects like a website for freshmen where user needs may evolve. It also allows for early and frequent website releases, as well as immediate input from users such as freshmen and staff. In addition, Agile model encourages strong communication between developers and stakeholders, which is critical for understanding and addressing the demands of newcomers.

This project could be carried out in small, manageable iterations that typically range 5-7 weeks. Each iteration consists of planning, design, coding, and testing, with the ultimate result being a working version of the product.

**4. Ethics, Intellectual Property and Confidentiality Considerations**

**Ethics Considerations：**

Our website involves the processing of sensitive information, including user data and proprietary content. To address confidentiality issues, strong encryption protocols and access controls are implemented.

This website complies with data protection regulations and respects user privacy. With a transparent privacy policy, users can clearly understand data usage. Proprietary data is handled with the utmost care and access is limited to authorized personnel.

**Interaction with Users and Data Collection：**

Our website will interact with users through a user-friendly interface.We ensure the user experience is positive, respectful and ethical.

The software collects the minimum personal data required for user authentication and targeted experience customization.

**Access by Minors and Software Security：**

Although this website is designed for college freshmen, we recognize that minors may access it. To combat this, content is carefully designed to be age-appropriate. We will comply with regulations regarding online platforms and access by minors. We follow best practices to prevent unauthorized access and data breaches.

**Risks and Addressing Ethics Issues:**

Although the potential risks such as personal injury or loss of income are small. We still implement thorough testing procedures to identify and resolve any unforeseen issues. Additionally, a clear user agreement outlines responsibilities and expectations, ensuring users are informed.

Our team is committed to resolving ethical issues promptly. Continuous monitoring and user feedback mechanisms are in place to adjust and improve the software based on user experience and evolving ethical considerations.

## **Timetable**

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## **References**

Freshman. University of Houston. (2024, January 10). <https://www.uh.edu/undergraduate-admissions/apply/freshman/>

Freshmen guide. Corporate NTU. (n.d.). <https://www.ntu.edu.sg/admissions/undergraduate/freshmen/freshmen-guide>

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