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# 1. Declaration

I, [Student Name], declare that this assignment, titled [Assignment Title], is my own original work and has not been copied from any other source except where explicitly acknowledged. I have not engaged in plagiarism, collusion, or any other form of academic misconduct in the preparation and submission of this assignment. All sources of information and data used in this assignment have been properly cited and referenced in accordance with the prescribed guidelines. I have not used unauthorized assistance in the preparation of this assignment and have not allowed any other student to copy my work. I am aware that any breach of academic integrity may result in disciplinary action as per the policies of Monash University, which may include failing this assignment or the course, and further academic penalties.

Signature:  Date: 18/09/2024

# 2. Github Check

Enter your Github details here.

| | |
|---|---|
| Github Username<br>*Enter your username here* | Rashmi-Patil08 |
| **A2 Shared?**<br>*Have you started and shared your assignment repository with your tutor yet?* | Yes. Link :https://github.com/Rashmi-Patil08/Indigenous_Website |

# 3. Self-Evaluation

Rate your performance for each criteria. Put a ✅(tick) in the box where you think your work belongs.

| Criteria | Exceeds Expectations | Meets Expectations | Needs Improvement | Fail to meet expectations |
|---|---|---|---|---|
| BR (A.1): Development Stack and Coding | | ✅ | | |
| BR (A.2): Responsiveness | | ✅ | | |
| BR (B.1): Validations | | ✅ | | |
| BR (B.2): Dynamic Data & Data Structure | | ✅ | | |

| | | | | |
|---|---|---|---|---|
| BR (C.1): Authentication | | ✅ | | |
| BR (C.2): Role-based authentication | | ✅ | | |
| BR (C.3): Rating | | ✅ | | |
| BR (C.4): Security | | ✅ | | |

## 4. Screen Recording of BRs

Create a 3 minute video showing your basic web application in action! Upload this video to your Google Drive and put the link here (ensuring that you have updated the access list so its not private).

https://drive.google.com/file/d/10lTFYNSW7tQTvQvQTlUzlVTlufEgNFfi/view?usp=sharing
(make sure in the access settings you have shared it with your tutor OR set the permissions so that anyone with Monash account can video the video)

## 5. Reflections: Implementation of C.4 Security

If you have implemented BR C.4, in less than 200 words describe the approach that you have taken to implementing Security in your application. What security flaws were you trying to prevent and what security measures have you implemented to fix those flaws? How do you know that these measures will help prevent those issues from happening? Optionally you can cite external sources to provide evidence for your claim.

For BR C.4 (security) implementation in the Indigenous Health online application, I addressed critical security issues, including cross-site scripting (XSS) and unvalidated user input. To avoid XSS attacks, I built input sanitization using DOMPurify, guaranteeing that any user-generated material, such as comments or reviews, is stripped of potentially malicious scripts before being shown. This stops attackers from introducing harmful code that may be executed in the browser, securing both the program and its users.

Additionally, I provided client-side validation to ensure that user input complies with the anticipated format and limitations, decreasing the chance of malicious input damaging the integrity of the system. For example, feedback forms verify text length and prohibit incorrect characters. These safeguards ensure that only sanitised, legitimate data is handled by the program.

Another layer of security is the use of HTTPS, which encrypts communication between the server and the client, safeguarding sensitive data such as login credentials and preventing eavesdropping or man-in-the-middle attacks.

These security practices—input sanitization, client-side validation, and HTTPS—are widely acknowledged as effective protection against typical online application vulnerabilities, including XSS, data manipulation, and eavesdropping. By using these steps, the program is more robust to online threats and offers a safer user experience.

## 6. Reflections: Challenges

What has been the most challenging part of this assignment for you? How has this stretched you as a programmer?

The most challenging part of this assignment has been working on my first web application from scratch. As a beginner, I found it overwhelming to dive into building a fully functional application while trying to understand the fundamentals of programming, including working with components, managing CSS styles, importing and configuring routes, and installing necessary libraries.

The process stretched me as a programmer, requiring me to develop both front-end and back-end skills. I had to navigate unfamiliar concepts like state management, form handling, client-side data validation, and security measures. Implementing business requirements like responsiveness, rating features, and role-based authentication was particularly challenging as they involved multiple interconnected parts of the application.

To overcome these challenges, I leveraged the resources from our Ed forum lessons and available materials to better understand the basics. This experience has deepened my understanding of web development and helped me grow more confident in coding, problem-solving, and approaching complex tasks step by step.

## 7. Declaration: Additional Help

Any tools that you used (including Gen AI or existing code reuse) must be declared here.

**Note**: GenAI is not allowed for coding purposes in any assignment,

However, you may use GenAI for brainstorming and problem solving. You need to declare all such uses here. One row per help used.

| Name | Description |
|---|---|
| *Example: ChatGPT for brainstorming ideas* | *I used ChatGPT to brainstorm how to do the basic scratch implementation because I was feeling stuck with creating a security, rating, and redirecting to the page from the logIn problem.* |
| | |