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: 19/11/2024

2. Github Check

Enter your Github details here.

Github Username *Enter your username here*	Rashmi-Patil08
A3 Shared? *Have you started and shared your assignment repository with your tutor yet?*	https://github.com/Rashmi-Patil08/Indigenous_Website NOTE: If you are extending your previous A2 submission, you can just copy-paste the same link here. This is the preferred option as you do not have to create a new project and a new repo from scratch. Otherwise, if you are creating a new project and new repo - you need to have shared it with your tutor and paste the link here.

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 (D.1): External Authentication	✅			
BR (D.2): Email	✅			

BR (C.3): Interactive Table Data	✅			
BR (D.4): Deployment to the Cloud	✅ ✅			
BR (E.1): Cloud Functions	✅			
BR (E.2): Geo Location	✅			
BR (E.3): Accessibility	✅			
BR (E.4): Export		✅		
BR (F.1): Innovation		✅		

4. Screen Recording of BRs

Create a 3-5 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).

<Link to Google Drive Video>
https://drive.google.com/file/d/16BQA3TeSA1ywP0k16lgyFpYXJo-VJXst/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. BR F.1 - Innovative Features

If you have implemented BR F.1, list your choices below and a brief description of how you implemented it.

0	Exact name of innovative feature (copy-paste from assignment specs). E.g. "`Bulk Email: The new Web Application must be able to send bulk email to selected users.`"	A brief, **specific** description (10-20 words) about how you implemented this in your web application. E.g. "I implemented bulk email to enable staff in my health charity website to send emails to multiple patients.	**Recommendations** for future upgrades (10-50 words)
1	Appointment Booking (using Calendar): The new Web Application must implement booking constraints such as booking conflict management using Calendar. Hint:	I implemented the booking appointment features and make sure not conflict with	The future implementation to modify the existing appointment that we

	Displaying features on a Calendar such as event constraint can be done using FullCalendar.io API	existing ones to consult expert about the services we provide to indigenous people.	created. Currently it is not functional.
2	Provide API access to others i.e. exposing at least 2 routes on your platform to allow third parties to fetch data using REST protocol.	I created two routes. The first routes will return a list of all registered users. Second route will return details of a single user by their unique ID.	Expand APIs with integrated rate limiting and enhance security with API keys and monitoring tools.
3	Interactive Charts - The new Web Application must display an interactive chart or graph using data from Firestore.	I created an interactive chart visualising Firestore data dynamically improving user engagement with real-time.	Future implementation is enhanced with live data updates and multi-chart views.
4	Admin Dashboard - Create a dashboard view for the system admin of this health charity (you may want to create a separate role for 'admin'), where they can see an overview of the website including number of users and types of users.	I created an admin dashboard where admin can see the overview of all users and change the details of the users and change role based access.	Future implementation is enhanced UI of the admin dashboard and add more features like messaging and see how many users are active or not.

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 difficult part of this project for me was implementing Gmail and Nodemailer for email functionality, working with Firestore database, building cloud functions, and handling the geolocation task. Each of these jobs needed a deep understanding of different platforms and their integration into a cohesive programme.

Setting up Gmail and Nodemailer for sending emails was complicated, especially ensuring security steps like app-specific passwords and handling configurations. I had to carefully fix authentication problems, which pushed my problem-solving skills and my ability to understand backend processes.

Working with Firestore database and cloud services pushed me to understand asynchronous

processes, data structure management, and secure interactions between the front end and Firestore. Writing efficient and scalable searches while keeping data security was a learning curve, especially when getting and showing data constantly.

The geolocation job was another tough test. Integrating Mapbox with Vue.js to create location-based features and ensuring the map stayed interactive took extensive study and troubleshooting. Understanding and applying concepts like map limits and marker changes taught me the value of precision in user experience design.

These tasks not only expanded my technical skills but also improved my patience and ability to fix under pressure. This task has made me a more confident and effective coder.

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	All week lessons materials, provided record videos, specially Weekly eFolio task useful to understand tools which are used. For basic understanding learning purposes Youtube videos are useful.