

1. Declaration

I, Tianyuan Li, declare that this assignment, titled A3: Advanced Web App, 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: Tianyuan Li

Date: 9/10/2024

2. Github Check

Enter your Github details here.

Github Username <i>Enter your username here</i>	Tina059
A3 Shared? <i>Have you started and shared your assignment repository with your tutor yet?</i>	https://github.com/Tina059/5032-ass2.git 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	<input checked="" type="checkbox"/>			
BR (D.2): Email		<input checked="" type="checkbox"/>		
BR (C.3): Interactive Table Data	<input checked="" type="checkbox"/>			
BR (D.4):	<input checked="" type="checkbox"/>			

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 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/drive/folders/1J1xeaJ65XyMRDKRR8O44X2A5fYbN1G1x?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.

1	Interactive Charts - The new Web Application must display an interactive chart or graph using data from Firestore.	Administrators can check the number of new users registered every day, so as to more conveniently understand the number of new users of the website.
2	Bulk Email: The new Web Application must be able to send bulk email to selected users.	Administrators can choose multiple users in the firebase database to send health news or news.
3	Admin Dashboard - Create a dashboard view for the system admin	Administrators have a separate interface, where you can choose to send group messages, manage users, and view registration charts.
4	App with at least two offline features like: Checking if user is online/offline, extended use of Local Storage etc.	When the user logs in, the information entered will be stored locally, so that the user does not

		have to enter it again the next time he logs in or refreshes.
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6. Reflections: Challenges

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

First of all, I spent a long time understanding how to manage and integrate cloud services, such as reading and writing to cloud storage. Deploying the email functionality was also particularly challenging. When I deployed my program, I found that the mailbox function failed, which forced me to modify my server multiple times, but I kept encountering different deployment and configuration issues. This experience helped me deepen my understanding of server-side debugging and deployment.

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
<i>ChatGPT for debug</i>	<i>I used ChatGPT to brainstorm how to resolve email delivery issues during deployment and debug errors.</i>