


REQUIREMENTS TRACEABILITY MATRIX														
Project Name	Campus Lost and Found Portal													
Project Type	Software Application Development													
Project Start Date	September 11, 2025													
Project End Date	December 5, 2025													
Project Sponsor	Dr. Koorosh Firouzbakht													
Primary Driver														
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Division	School of Computing and Data Science													
Project Manager/Department	COMP 4960 - 01A - Team 2													
ID	Assoc ID	Technical Assumption(s) and/or Customer Need(s)	Functional Requirement	Status	Architectural/Design Document	Technical Specification	System Component(s)	Software Module(s)	Test Case Number	Tested In	Implemented In	Verification	Additional Comments	
001	4.1.1	Customer does not want random users being able to access the app that is intended solely for university students and staff	The system shall allow users to register an account using their Wentworth ID.	Completed	SDUI 4.3.1	Firestore Authentication	React/SwiftUI/Firebase Authentication	Authentication Module	1, 2	iOS & Web	iOS & Web	Passed during testing and final demo		
002	4.1.2	All university students and staff should be able to access the app	The system shall allow all registered users access to the app's services.	Completed	SDUI 4.3.1	Firestore Authentication & Firestore validation	iOS App, Web App, Firestore, Firestore	Authentication Module & User Validation Module	N/A	iOS & Web	iOS & Web	Verified by attempting to access app		
003	4.1.3	App users need to submit reports for lost/found items	The system shall ask if the user wants to report a found or lost item.	Completed	SDUI 4.1.2	Lost/Found selector	React/Swift UI	Lost/Found Selection Screen	N/A	iOS & Web	iOS & Web	User can choose lost or found before filling a report		
004	4.1.4	App users need to submit reports for lost/found items	The system shall allow the user to report a lost item. The user must report the item category, description, last known location, and their contact information.	Completed	SDUI 4.1.2.3	Report Form	React/SwiftUI/Firebase	Lost item form & Firestore	3, 4	iOS & Web	iOS & Web	Complete form submits and appears for admin		
005	4.1.4.1	Item reports should contain enough details to uniquely identify an item	The system shall require the user to input the item's category (e.g., backpack, coat, laptop).	Completed	SDUI 4.1.2.3	Category Field	React/SwiftUI/Firebase	Category specifications	N/A	iOS & Web	iOS & Web	Form cannot be submitted without a category		
006	4.1.4.2	Item reports should contain enough details to uniquely identify an item	The system shall require the user to report a description of the item.	Completed	SDUI 4.1.2.3	Description Field	React/SwiftUI/Firebase	Description text area	N/A	iOS & Web	iOS & Web	User can specify a description for the item		
007	4.1.4.2.1	Item reports should contain enough details to uniquely identify an item	The system shall require the user to write a basic text description of the item.	Completed	SDUI 4.1.2.3	Text Field	React/SwiftUI/Firebase	Description text area	N/A	iOS & Web	iOS & Web	User can specify a description for the item		
008	4.1.4.2.2	Item reports should contain enough details to uniquely identify an item	The system shall allow users to optionally upload an image of their lost item.	Completed	SDUI 4.1.2.3	Image Upload	React/SwiftUI/Firebase	Image Upload	6	iOS & Web	iOS & Web	Image is successfully uploaded and shows in the report		
009	4.1.4.3	Item reports should contain enough details to uniquely identify an item	The system shall require the user to report the last known location of their item.	Completed	SDUI 4.1.2.3	Location Input	React/Swift UI	Location input	N/A	iOS & Web	iOS & Web	Location successfully added and shows in the report		
010	4.1.4.3.1	Reports should indicate the location where the item was lost or found	The system shall allow users to mark the last known location of their item with a pin using their device's GPS.	Completed	SDUI 4.1.2.3	GPS Pin	SwiftUI/MapKit	GPS Pin	8	iOS & Web	iOS & Web	Pin correctly reflects location in iOS app		
011	4.1.4.3.2	Reports should indicate the location where the item was lost or found	The system shall allow users to optionally select the building in which their lost item was last seen.	Completed	SDUI 4.1.2.3	GPS Pin/Description	React/SwiftUI	Location Specification	N/A	iOS & Web	iOS & Web	Users can correctly specify the building		
012	4.1.4.4	Reports should provide a method for the rightful owner to collect their item	The system shall require the user's contact information.	Completed	SDUI 4.1.2.3	Contact Field	React/SwiftUI	Contact info section	N/A	iOS & Web	iOS & Web	Reports show users contact information		
013	4.1.4.4.1	Reports should provide a method for the rightful owner to collect their item	The system shall require the user's name.	Completed	SFR 2.1.4.4.1	Contact Field	React/SwiftUI/Firebase Authentication	Name Section	N/A	iOS & Web	iOS & Web	Name is stored with the report		
014	4.1.4.4.2	Reports should provide a method for the rightful owner to collect their item	The system shall require the user's phone number.	Completed	SFR 2.1.4.4.2	Contact Field	React/SwiftUI	Phone number section	N/A	iOS & Web	iOS & Web	Phone number is stored with the report		
015	4.1.5	App users need to search and filter item reports to accurately identify their item	The system's user interface shall display a search bar, for users to search through the list of found items.	Completed	SFR 2.1.5	Search Bar	React/SwiftUI/Firebase	Searchbar	5	iOS & Web	iOS & Web	Functional search bar		
016	4.2.1	Customer does not want random users being able to access the app that is intended solely for university students and staff	The system shall restrict access to users with a valid Wentworth account.	Completed	SNFR 2.2.1	Domain Restriction	Firestore Authentication	Authentication Module	1, 2	iOS & Web	iOS & Web	non @wit.edu users cannot log in		
017	4.2.2	App users need to submit reports for lost/found items	The report form shall include labeled fields for category, description and location.	Completed	SNFR 2.2.2	Labeled Fields	React/SwiftUI	Form Labels	N/A	iOS & Web	iOS & Web	All required and optional fields are displayed		
018	4.2.3	App users should have access to current data in a timely manner	Lost and found item reports that are approved by an admin shall be visible to users in under 1 minute.	Completed	SNFR 2.2.3	Real-time visibility	React/SwiftUI/Firebase	Admin Dashboard	3	iOS & Web	Database	Approved reports appear instantly		
019	4.2.4	Item reports should be stored securely and accessible by users on any platform	Previously found items shall be saved into a database.	Completed	SNFR 2.2.4	Firestore Database capabilities	React/SwiftUI/Firebase	Firestore/Firebase	N/A	iOS & Web	iOS & Web	Reports remain available after app restarts		
020	4.2.5	Users want to protect their personal information and may be uncomfortable publishing their name and phone number to the entire university	User data and contact information shall only be visible to the item reporter and system administrators.	Not Started	SNFR 2.2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
021	4.2.6	The app should be capable of storing a large amount of item reports because it will have thousands of users	The database shall have the capacity to store a minimum of 5000 lost and found item reports.	Completed	SNFR 2.2.6	Firestore database	Firestore	Firestore Database	N/A	N/A	Database	Ensured by firestore		
022	4.2.7	Users may want to delete reports with errors or resolve them once their item is found or returned	The system shall allow users to view and delete their own reports.	Completed	SNFR 2.2.7	App profile	React/SwiftUI/Firebase	User Profile	N/A	iOS & Web	iOS & Web	Users can view their reports in the app profile view.		
023	4.2.8	Users should be contacted in a timely manner if another user finds their item	The system shall send an email notification to a user when their reported lost item gets reported as found by another user.	Not Started	SNFR 2.2.8	N/A	N/A	Email Notifications	7	N/A	N/A	N/A		
024	4.3.1	Having a native mobile app is beneficial for user experience on mobile devices	The system shall be built using Swift and SwiftUI for the mobile application.	Completed	SOR 2.3.1	Swift/SwiftUI	Swift/SwiftUI	Software Architecture	N/A	N/A	iOS	iOS app successfully runs		
025	4.3.2	Having a web application allows for higher speed and productivity, especially for system moderators	The system shall be built using Node.js/Express backend with a Firestore database for the web app.	Completed	SOR 2.3.2	Node.js/Firebase/Firebase integration	React/Tailwind/Node.js/Express	Software Architecture	N/A	N/A	Web	Web app successfully runs		
026	4.3.3	Users may submit inappropriate content, so all reports should be reviewed by a moderator before they are published	The system shall have a separate system view for admins.	Completed	SOR 2.3.3	Web Integration	React/Firebase/Firebase	Admin Dashboard	N/A	Web	Web	Only admins can see admin dashboard buttons		