USE CASES DESCRIPTION:

Use Case ID:	UC1		
Use Case Name:	Create Account		
Created By:	Haojun	Last Updated By:	Haojun
Date Created:	30/1/2025	Date Last Updated:	9/4/2025

Actor:	User (Initiating actor)
Description:	The user can create an account using their name, email, and phone number. Once the account is created, the user can log in to the app to access its features.
Preconditions:	1. The device has a usable phone number and access to the Internet 2. The user has not created an account before
Postconditions:	1. The user is registered. 2. The user is logged in and redirected to the home screen.
Priority:	-
Frequency of Use:	Once for every user

Flow of Events:	1. The user selects the **"Sign Up"** option on
	
	2. The user enters the required information, including:
	
	    a) Full name (8-20 characters)
	
	    b) Phone number
	
	    c) Email
	
	    d) Password (8-20 characters)
	
	    e) Confirm Password
	
	3. The system validates input (format, length, match)
	
	4. Upon successful validation, the system creates the user account and logs the user into the app with a welcome message.

Alternative Flows:	1. The user submits the form with missing or incorrect details.
	
	    a) The system displays an error message.
	
	    b) The user corrects the errors and resubmits the form.

Exceptions:	1. The user has registered an account before. Solution: The system prompts "An account has been created" message
Includes:	
Special Requirements:	-
Assumptions:	-

Notes and Issues:	-

Use Case ID:	UC2		
Use Case Name:	Login		
Created By:	Haojun	Last Updated By:	Haojun
Date Created:	30/1/2025	Date Last Updated:	5/2/2025

Actor:	User
Description:	Users can log in using their email and password to access personalized features.
Preconditions:	1. The user has an existing, validated account. 2. The app is installed and has internet access.
Postconditions:	1. If successful, the user is authenticated and gains access to the app.
Priority:	-
Frequency of Use:	Every time the user enters the app.
Flow of Events:	1. The user opens the app and selects the **"Log In"** option. 2. The user enters their registered email and password. 3. If the credentials are correct, the user is logged in successfully. 4. The system redirects the user to the home screen.

Alternative Flows:	1. Email and password do not match The application displays an "Incorrect password" message and prompts the user to retry 2. The account does not exist The application displays an "Invalid account" message and prompts the user to create an account
Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC3		
Use Case Name:	Log out		
Created By:	Haojun	Last Updated By:	Haojun
Date Created:	30/1/2025	Date Last Updated:	9/4/2025

Actor:	User
Description:	The user logs out of the application. The application ends the user session and redirects them to the login page.
Preconditions:	The user is logged in.
Postconditions:	The user session is terminated, and the user is redirected to the login page.
Priority:	-
Frequency of Use:	-
Flow of Events:	1. User selects the "Logout" button. 2. The application ends the user session. 3. The system redirects the user to the login page.
Alternative Flows:	-

Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC4		
Use Case Name:	Edit profile		
Created By:	Haojun	Last Updated By:	Haojun
Date Created:	30/1/2025	Date Last Updated:	9/4/2025

Actor:	User
Description:	The user edits their profile, including changing their name, phone number, and password.
Preconditions:	The user is logged in.
Postconditions:	The changes made are instantly reflected on the profile page
Priority:	-
Frequency of Use:	-
Flow of Events:	1. User selects the "Edit profile" button. 2. User inputs the changes they want to make. 3. The successfully changed message is displayed upon changing.

Alternative Flows:	1. Any of the fields is empty.
	  - Prompts the user not to leave any field empty.
	2. The current password is incorrectly input.
	  - Prompts the user to input the correct current password so that they can change their password.

Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC5		
Use Case Name:	View and select a crime type		
Created By:	Haojun	Last Updated By:	Haojun
Date Created:	18/2/2025	Date Last Updated:	9/4/2025

Actor:	User
Description:	Users can choose from the three crimes that are most common in their location and an "others" option and make a crime report.
Preconditions:	1. The user has internet access to load the crime offenses data. 2. The user is logged into the app.
Postconditions:	1. The user has successfully viewed the list of available crime offenses.
Priority:	High
Frequency of Use:	High
Flow of Events:	1. The user taps on the "Home Page" section in the app's navigation menu. 2. The app displays a list of categorized crime offenses. 3. User selects a crime. 4. The app displays descriptions like location and time.

	5. The user can navigate back to the main crime offenses list or other parts of the app.
Alternative Flows:	-
Exceptions:	-
Includes:	UC8: Display the most common crime type
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC6		
Use Case Name:	Make a report		
Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	31/01/2025	Date Last Updated:	5/2/2025

Actor:	User, Neighbourhood Police Center (NPC)
Description:	The user can report a crime via the application, which will be sent to the nearest police station.
Preconditions:	1. The user is logged in. 2. The device has an active internet connection.
Postconditions:	1. The report is logged in the system. 2. The nearest **Neighbourhood Police Centre (NPC)** receives the report and dispatches resources if necessary.
Priority:	High
Frequency of Use:	As needed

Flow of Events:	1. The user views the crime offenses and selects a crime offense. 2. The user selects the "Make a Report" option. 3. The report is submitted to the Neighbourhood Police Centre. 4. The system notifies the user that the report has been received.
Alternative Flows:	1. If the crime type does not match the listed options, the user selects "Other" and manually describes the incident.
Exceptions:	Report Submission Fails ● If the report fails to send, the system notifies the user and allows them to retry.
Includes:	UC7: Send SMS notification to NPC UC8: Find the nearest police station
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC7		
Use Case Name:	Send SMS notification to NPC		
Created By:	Dhruvikaa	Last Updated By:	Haojun
Date Created:	10/04/2025	Date Last Updated:	5/2/2025

Actor:	User, Neighbourhood Police Center (NPC)
Description:	The user can report a crime via the application, which will be sent as an SMS notification to the nearest NPC.
Preconditions:	1. The user is logged in. 2. The user submitted a crime report
Postconditions:	3. The report is logged in the system. 4. The nearest **Neighbourhood Police Centre (NPC)** receives the report and dispatches resources if necessary.
Priority:	High
Frequency of Use:	As needed
Flow of Events:	1. The user views the crime offenses and selects a crime offense. 2. The user selects the "Make a Report" option. 3. The report is submitted to the Neighbourhood Police Centre. 4. The Neighnourhood Police Centre will receive an SMS notification regarding the crime type, location of the crime, coordinates, reporter email, and the time when the crime happened.

Alternative Flows:	-
Exceptions:	-
Includes:	UC9: Find the nearest police station
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC8		
Use Case Name:	Display the most common crime type		
Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	31/01/2025	Date Last Updated:	09/04/2025

Actor:	User
Description:	The system displays the most common major offenses in that area for the user to choose.
Preconditions:	The user wants to report a crime.
Postconditions:	The system will reconfirm with the user if the user wishes to report the crime.
Priority:	High
Frequency of Use:	Whenever the user wants to report a crime
Flow of Events:	1. The user wants to report a crime. 2. The system accesses the Cases Recorded For Selected Major Offences Annual database to determine some popular major offences. 3. The system displays some of the most common crime types in the user area by using the **Access User's Location Data (UC9)**.
Alternative Flows:	The user selects "others" to report other offenses not available in the menu.

Exceptions:	-
Includes:	UC9: Access User's Location Data
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC9		
Use Case Name:	Find nearest police station		
Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	31/01/2025	Date Last Updated:	05/02/2025

Actor:	Google Maps API
Description:	The system finds the nearest police station to the user from a static dataset using basic distance logic.
Preconditions:	1. The app has access to the user's real-time location. 2. The system has access to police station location datasets.
Postconditions:	1. If successful, the nearest police station is informed and can respond to the incident. 2. If unsuccessful, the user may need to report the crime manually or retry.
Priority:	High
Frequency of Use:	Whenever crime reporting
Flow of Events:	1. The user selects a crime type from the automatic contact grid. 2. The system includes **Access User's Location Data (UC10)** to refine crime selection. 3. The system checks the police station dataset and identifies the nearest station. 4. The police station receives the alert and acknowledges the request.

	5. The system notifies the user that the report has been sent successfully.
Alternative Flows:	1. The user manually finds the police stations with the location specified.
Exceptions:	
Includes:	UC10: Access User's Location Data
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC10		
Use Case Name:	Access User's Location Data		
Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	31/01/2025	Date Last Updated:	05/02/2025

Actor:	Google Maps API
Description:	The system retrieves the user's location for crime reporting and emergency response.
Preconditions:	1. The user has granted location permissions. 2. The device's GPS is enabled.
Postconditions:	1. The location is retrieved and included in reports or emergency calls.
Priority:	High
Frequency of Use:	Whenever a crime is reported
Flow of Events:	1. The application requests access to the user's location. 2. The user grants permission. 3. The system retrieves the location and updates the report.
Alternative Flows:	1. If GPS is not enabled, the system prompts the user to enable GPS. 2. If the user denies location access, the system prompts manual entry of location details.

Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC11		
Use Case Name:	Submit Feedback		
Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	31/01/2025	Date Last Updated:	05/02/2025

Actor:	User
Description:	Allows users to provide feedback about police response or the app.
Preconditions:	The user has previously used the app's services.
Postconditions:	The feedback is acknowledged by the system and sent to the Neighbourhood Police Center.
Priority:	Low
Frequency of Use:	Occasionally
Flow of Events:	1. The user selects "Submit Feedback" from the menu. 2. The system prompts for ratings and comments. 3. The user submits feedback. 4. The feedback is logged and sent to law enforcement. 5. The system confirms successful submission.

Alternative Flows:	**User submits feedback without rating** ● The system prompts the user to provide a rating before submission. **User submits feedback without message** ● The system prompts the user to provide a message before submission.
Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-

Use Case ID:	UC12
Use Case Name:	View History

Created By:	Dhruvikaa	Last Updated By:	Dhruvikaa
Date Created:	03/02/2025	Date Last Updated:	05/02/2025

Actor:	User
Description:	The user can view their past reports and interactions with law enforcement.
Preconditions:	1. The user logged in.
Postconditions:	1. The user can access their report history.
Priority:	Medium
Frequency of Use:	Occasionally
Flow of Events:	1. The user selects "View History" from the menu. 2. The system retrieves previous reports from the **User Database**. 3. The user can browse past reports and police responses.
Alternative Flows:	**No previous reports exist** ● The system displays a message: "No report history found."

Exceptions:	-
Includes:	-
Special Requirements:	-
Assumptions:	-
Notes and Issues:	-