Use Case Overview:
The user is viewing a map of their surrounding area. The user wants to arrive at a destination safely and sets a timer for the application's safety check-in feature. When the timer runs down or when the user attempts to abort the timer, the application prompts the user to enter a preset PIN. Successful entry leads the user back to our map viewing use case. When the PIN is not correctly entered within the timer limit, an alert is sent to the user's predesignated contacts.

Actor: User. Someone who feels unsafe and wants to verify their arrival at a destination as a safeguard.

Preconditions: None.

Trigger: The user interacts with the application to indicate that they would like to use the safety check-in feature.

Basic Flow
Description: The happy path. User has location services/routing services on, arrives at their destination within the expected time and properly inputs their PIN to verify their safety.

1. User verifies emergency contacts list and PIN.
2. User inputs destination and confirms trip route and estimated trip time.
3. User confirms they have reached their destination.
4. User verifies their safety with the application by inputting their PIN.

Termination Outcome: The user has reached their destination safely and indicated this to the application. No emergency contacts are notified.

Alternative Flows

Alternative Flow (3A)
Description: The user does not arrive at their destination within the estimated time. They could have gotten lost, or decided to take a detour. They notify the application of their delay. This flow diverges from the basic flow at step 3.

1. User tells the application that they have not yet reached their destination.
2. User enters their PIN to add an extension to the timer. Repeat until the user has arrived at their destination.
3. User confirms they have reached their destination.

4. User verifies their safety with the application by inputting their PIN.

Termination Outcome: The user has reached their destination safely and indicated this to the application. No emergency contacts are notified.

Alternative Flow (2A)
Description: The user does not have location services/routing services on. Since the estimated trip time is unknown, the user sets a periodic timer. This flow diverges from the basic flow at step 2.

1. User selects the frequency interval for the safety check-in timer.
2. User verifies safety with the application by inputting their PIN. Repeat until the user confirms they have reached their destination.

Termination Outcome: The user has reached their destination safely and indicated this to the application. No emergency contacts are notified.

Alternative Flow (1A)
Description: The user, who no longer feels unsafe, indicates that they would like to terminate a timer session. They have either done so within the application itself, or have attempted to exit the application. This flow diverges from the basic flow and the alternative flows above at any step after step 1 of the basic flow.

1. The user indicates their desire to terminate the timer and/or the application.
2. The user enters their PIN.

Termination Outcome: The user terminates the timer. No emergency contacts are notified.

Alternative Flow (1B)
Description: The user's phone is about to die while the user is using the safety check feature, but they still feel unsafe and would like the application to give them some piece of mind. This flow diverges from the basic flow and the alternative flows above at any step after step 1 of the basic flow.

1. The application terminates due to low battery.
2. All emergency contacts except for the emergency authorities are notified. If location services are on and the user has allowed for this in their settings, their location is also sent with the message.

Termination Outcome: The user does not verify their safety with the application. All contacts except for the emergency authorities are notified.

Alternative Flow (4A, 2A:2A, 1A:2A)
Description: The user doesn't remember their PIN, or something has happened to the user and someone else is trying to input a PIN. In any case, the user does not respond properly to the prompt for their PIN. This flow diverges from the basic flow at step 4, from alternative flow 2A at step 2, and from alternative flow 1A at step 2.

1. Somebody enters the wrong PIN too many times or nobody responds to the PIN prompt.
2. All emergency contacts are notified. If location services are on and the user has allowed for this in their settings, their location is also sent with the message.

Termination Outcome: The user does not verify their safety with the application. Emergency contacts are notified.