1 Geofence: Perimeter Breach

Description

Geofence is the virtual perimeter for a real-world geographic area, according to Wikipedia. In this context, the geofence is the virtual perimeter for when the automatic turn-on feature will be triggered.

Actors

User

Preconditions

1. The user has activated the geofence function in his or her smartphone.
2. The smartphone's GPS hardware is activated.
3. The application is running, either in foreground or background.
4. The user is logged in to the application.

Basic Flow

1. The user closes in to the virtual perimeter.
2. The smartphone detects the breach of the virtual perimeter.
3. The smartphone sends a request to the system to turn on the coffee machine.
4. The system sends a notification to the smartphone that the coffee machine has been turned on.
5. The system writes a log entry for the activity of the user with the current time and date.
6. The smartphone notifies the user that the coffee machine has been turned on.

Alternative Flows

1 a) The user is already inside the geofence perimeter.

1. The basic flow continues at step 3.

4 a) The system sends a notification that the coffee machine already is on.

1. The use case ends without any other action.

4 b) The system sends a notification that the functionality is disabled in the server.

1. The application notifies the user that the notification is disabled on the server.
2. The application turns the geofence functionality off inside the smartphone.

Postconditions

The coffee machine is on.