**GeoPost**

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These use cases cover the core functionality of our application. We intend to support users posting text and potentially graphics and video at their geographic location, and view the posts of others wherever they choose to view. This requires a registration system, a map library, and a database to contain pins. At a high level, the below use cases cover the basic functions the app needs to perform to achieve its most limited goals. We have a suite of stretch features we would like to implement, and there are certainly more use cases under that aegis. However, we feel these four cases cover the majority of core application functionality.

**Use Case: Signing Up/In with Facebook**

**Actors:** The application user

**Preconditions:** There are no application-specific preconditions. This is the initial phase of the application, so only the following preconditions must be satisfied: The user has installed the application, and the users phone is on and has an internet connection.

**Triggers:** The user has clicked the app button, and is intending to log in, or sign up, to the app.

**End Condition (Action Success):** The success condition for this stage is achieved by successfully signing a user in, and displaying the application home screen.

**Error Condition:** If the user cannot log in via Facebook, we must notify them that they will need to create a Facebook profile. As a stretch feature, we may want to implement ad-hoc public viewing, in which anyone can view pins regardless of login status, but cannot pin, and cannot comment on/review/do anything else to existing pins.

**User Steps:**

* The user taps the GeoPost app to open it.
  + If the user is already registered and their device has a current Facebook session, they are immediately taken to the home screen.
* If the user has not registered or does not have a current session, they are presented with a “Login with Facebook” screen.
* The user enters their email and password and then presses the “login” button.
  + If the information was incorrectly entered they are again prompted for email and password.
* If they have entered their login information correctly, a session is established.
  + If the user was not previously registered they are added to our database, as a stretch feature this would prompt a “Welcome to GeoPost” message and start a tutorial about how to use the app.
* The home screen is displayed to the user.

**Use Case: View Posts at Current Location**

**Actors:** The application user, to the extent that there are other users who have pinned at this location, those users.

**Preconditions:** The user has successfully logged in. They must have a Facebook profile, and they now have a GeoPost profile.

**Triggers:** This event is triggered by a user login. This use case is essentially just displaying the home screen.

**End Condition (Action Success):** To achieve success, we need to display a section of Google maps to the user, centered on their current location. Then, we must populate the map with all the pins in our database that fall within the relevant map segment. This is achieved by first making calls to the Google maps API, and then drawing pins wherever relevant on the map. The architectural details of pin drawing have yet to be determined.

**Error Condition:** If we cannot access maps (perhaps due to no internet connection), or we cannot determine user location, we should display an error screen requesting the user connect to the internet, or turn on location services, as the case may be. We should use the same error screen in the case that we are not able to retrieve pins from our database, for any reason.

**User Steps:**

* Begin on the home screen
* Tap a pin on the map
  + If a pin is locked, a locked pin message is displayed
  + If there is database connectivity issues, a network error message is displayed
* View pin message

**Use Case: Making a Post at Current Location**

**Actors:** The application user

**Preconditions:** The user has successfully logged in with Facebook and is on the home screen.

**Triggers:** The user clicks the “Post” button on the home screen

**End Condition (Action Success):** Success is established when a new pin is displayed to the user after they have filled out a pop-up menu specifying what should be in the post.

**Error Condition:** Error handling in this use case should result in the user receiving a notification overlay that posting is not possible at this time. We want to tailor the overlay to represent the particular error. At this point in the design phase, we do not know all possible error conditions, but the most likely is that either the user hasn’t enabled location services, or they have no internet connection. They should be prompted to rectify either problem.

**User Steps:**

* Begin on the home screen
* Click on the “Post” button
  + A posting screen is overlayed on top of the home screen.
  + This screen includes a message box to type a message into
    - The message will be capped at a max length, after which the user can no longer type more characters
  + The screen also contains a “post” button and a “cancel” button
  + As a stretch feature, there will be a button to browse for a picture
* Type a message into the message box
  + If the “cancel” button is hit at any point from this screen, the user is taken back to the home page
* Click the “post” button
  + The user now sees the home page again, identical to before except with a new post on their current location representing the post they just made