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1. **Explain the main features of the app:**

Functionality: 'Where U Clicked' categorizes the photos of a user in his Flickr account based on the Location the photos are taken and mark the photos on the Google Map based on its coordinates.

Pre-requisites for the app:

- The user should have a Flickr account.
- The app only takes the photos with Geo data (Coordinates) from the Flickr. So, user should switch on the 'Location' feature in android mobile while taking the photos.

API's Used:

Flickr API: Used to get the photos of a user.

Google Maps API: Used to get the addresses and map the photo on the google map.

Parse API: Used to store the User details and Photo details (Geo Data, Url, Owner information, address).

The App starts by asking the user to login or create a new account; once this process is accomplished, the user is taken to the Authorization screen. The user should provide the Yahoo credentials so that the Flickr authorizes the app to access the user photos.

Cities View:

Once the user authorizes, the app loads the geo tagged photos from his Flickr account and categorizes them in to cities or the places where that photos are taken. The list of cities are displayed in the 'Cities' View where each item in the list displays the City Name, Number of Photos.

If the user clicks on a city on the list, the photos specific to that city are displayed in to Image View and Map View.

Image View:

If the user selects the Image View, the photos specific to the selected city are displayed in the grid. When the user clicks on the photo, the photo is displayed in the Full Screen mode.

Map View:

If the user selects on the Map View, the photos specific to the selected city are displayed on the map as a cluster of markers. Each photo is converted in to a custom marker with an image icon showing the photo itself. When a user views the map at higher level the image markers are clustered and they are divided in to small clusters eventually to individual image marker as the user zooms in to the map.

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The user can click on the cluster of the image marker or an individual marker, in either case the photo is displayed in the Full Screen mode. If the user clicks on the cluster of markers with size 2, only those 2 photos are opened in the Full Screen mode.

Full Screen Mode:

The Full Screen mode displays the photo in full screen showing the number of views that photo have. The Full Screen mode have two options, one option is 'Close' which closes the Full Screen mode and takes back to Image View or Map View. The second option is displayed in the form of a 'Flickr' icon and when clicked it takes the user to the original photo in the 'Flickr'.

Navigation Drawer:

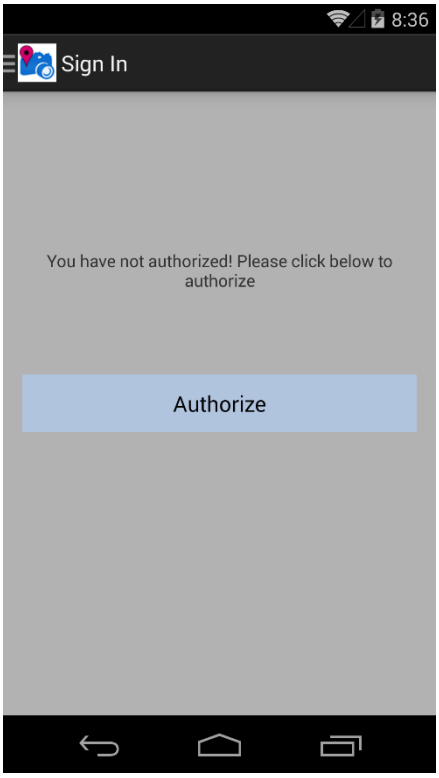
The Navigation Drawer displays three items 'Authorize', 'Cities' and 'Logout'. The 'Authorize' takes to the Authorization screen and 'Cities' takes to the Cities view when clicked. The user can logout of the application by clicking on the 'Logout'.

Steps to Use the app:

1. Sign in or Sign Up in to app

Screen 1: Sign In

2. Click on the Authorization button.



Screen 2: Authorize

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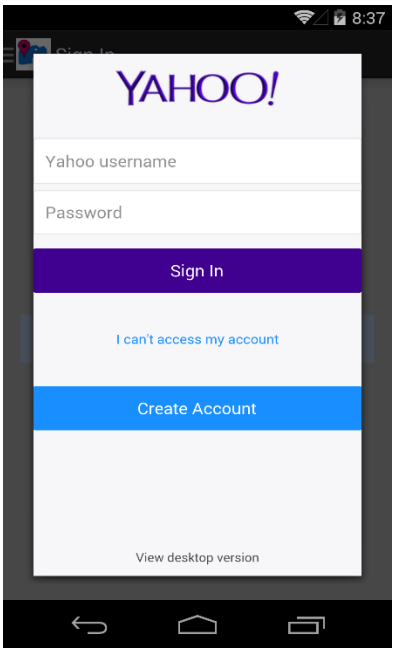
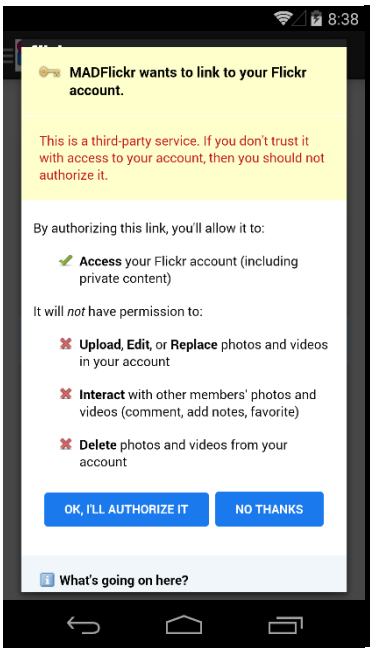
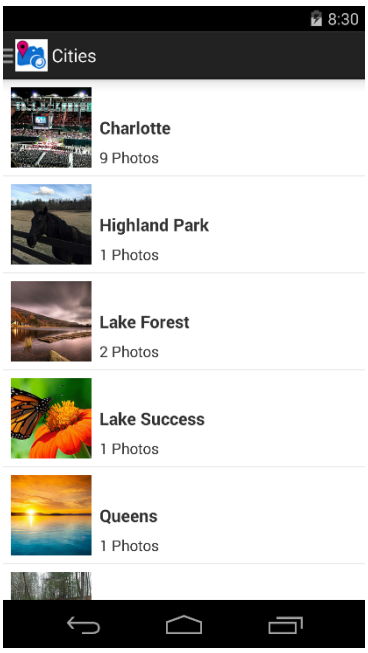
3. Enter the Yahoo credentials



4. Authorize the app



5.List of Cities are displayed



Screen 3: Cities View

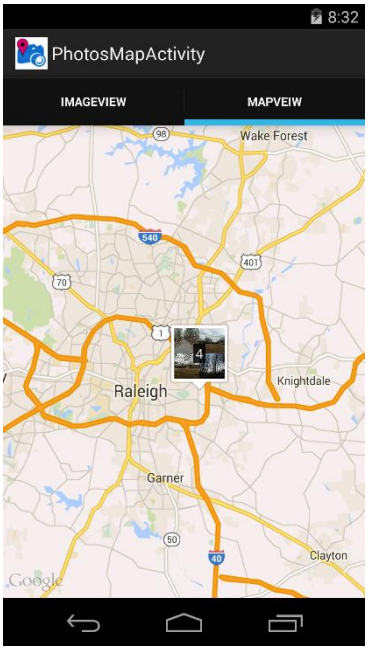
6. Clicked on one of the cities

Screen 4: Image View

7.Click on the single Image

Screen 5: Full Screen Mode

8. Select Map View(Low Zoom)



Screen 6: Map View

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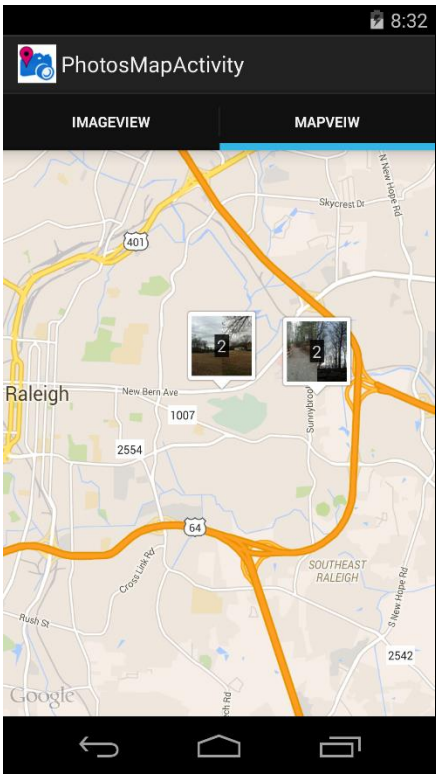
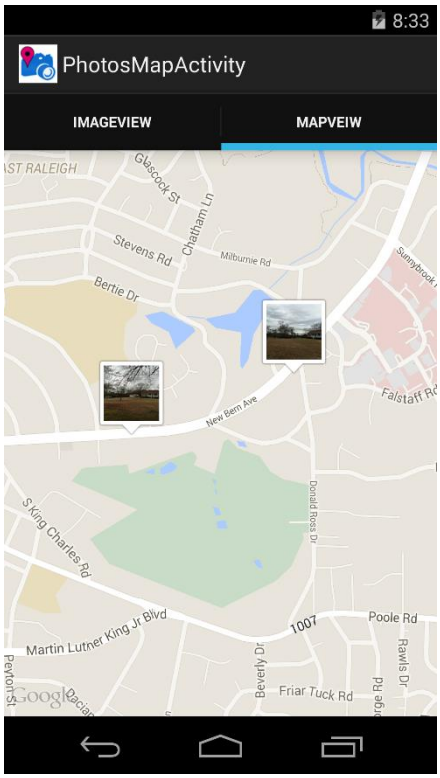
9. Zoom in (Clusters are divided)



Screen 7: Map View in low zoom level

10. Zoom in (Individual images are displayed)

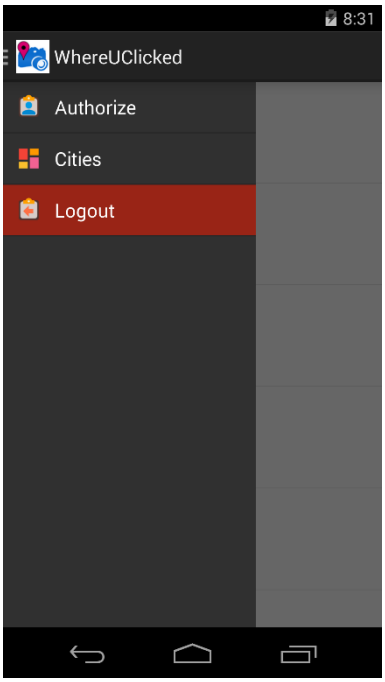


Screen 8: Map View in lowest zoom level

11.Click on the single Image or cluster from Map

Screen 9: Full Screen Mode

12.Click on the Log out button.



Screen 10: Navigation Drawer

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2. **Provide a detailed account of how the submitted app compares to the initially proposed app**

There are no major differences in the submitted app from the proposed app. The functionality of the app is same as the proposed app.

The submitted app is different from the proposed app in User Interface perspective, we have included navigation drawer, Swipe views with tabs and image clustering in the google maps in the submitted app.

3. **Describe the different design choices that were implemented and the reasons behind these choices:**

Architectural Design Choices:

- We have used Parse.com to implement Login functionality, Forgot Password functionality since it is simple and easy to implement.
- We have used Parse.com to store the metadata of each Flickr photo since it is easy and convenient to query parse and get the details of the photos whenever we need in the app.
- We are asking the user to authorize the app using WebView rather than the browser. If we use the browser, the Flickr is saving the credentials of the user in the browser while authorizing. The Yahoo login screen is not displayed when the other user tries to authorize with different credentials and it is directly taking to the authorizing screen logged in with previous users credentials. So we have used WebView and clearing the Cookies of the WebView which displays the Yahoo Login screen when a different user tries to authorize the app.

User Interface Design Choices:

- We have used Navigation drawer for the selection of different views since it is simple and convenient to use.
- We have used Swipe Views with tabs for the selection of ImageView and MapView, since these views displays the same information on different formats. It would be

convenient and easy for a user to swipe and see the different views.

- We have used Image clustering to display the images on the google maps and it gives a great detail about the photos, like the photos taken in the nearby are clustered in to same cluster and user can easily see how many photos he have taken in a particular place from a high level.