CS5551-ADVANCED SOFTWARE ENGINEERING

Dr. YUGYUNG LEE

ASSIGNMENT 3

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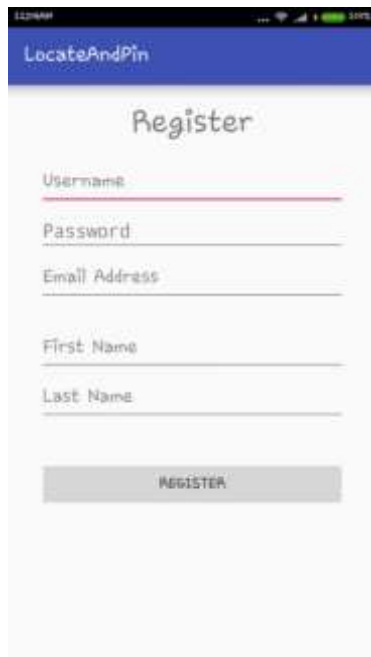
STEPS INVOLVED:

1. A new Android project has been created using Android Studio.
2. API level 15 has been used in order to support most of the devices.
3. A basic registration form has been created and upon registering the user is prompted to select a picture of their choice either from the Gallery or Capture a new picture.
4. Appropriate **uses-permission** tags are added in the **AndroidManifest.xml** file. The permissions that are added are: **INTERNET, CAMERA, ACCESS_FINE_LOCATION, ACCESS_COARSE_LOCATION, WRITE_EXTERNAL_STORAGE**.
5. If the user chooses Capture Picture then Camera Application of the phone is launched using **ACTION_IMAGE_CAPTURE**. If they choose to select an existing image, then Gallery of the phone is opened using **ACTION_PICK**.
6. Path of the image file in Phone's internal memory is stored in a variable and the Image selected is shown in the **ImageView** widget.
7. The saved variable is passed to Map activity using Intent **putExtras** method.
8. The variable value is retrieved using **getExtras** method on Map activity page.
9. The Current Location of the user is fetched using **LocationListener**, whenever the location of the user changes, **onLocationChanged** method is called and the new Latitude and Longitude of the user are returned.
10. These new coordinates are reverse geo-coded inorder to obtain the Address of the user to show in the form of a snippet when the Marker is tapped.
11. The path of the image which is retrieved from previous activity is converted into a Bitmap and then **BitmapDescriptorFactory** is used to set the custom marker icon.

Challenges Faced:

1. Getting the Latest location of user.
2. Passing the file path to the maps activity in order to show image of the user for Custom marker.
3. Converting the Image into Bitmap so that it can be used as Marker.

1. Registration page of the user

2. User enters his/her credentials.
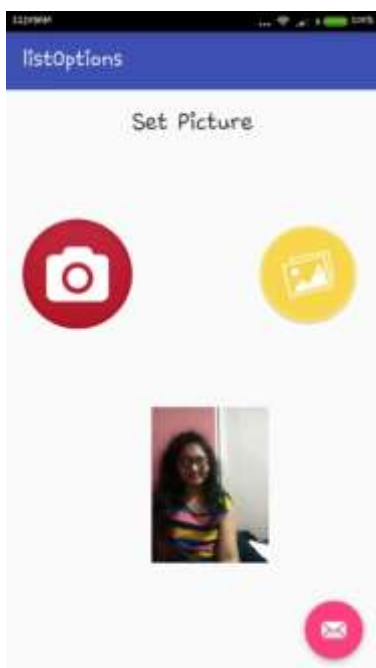
3. The list of options are provided (CAMERA/GALLERY).
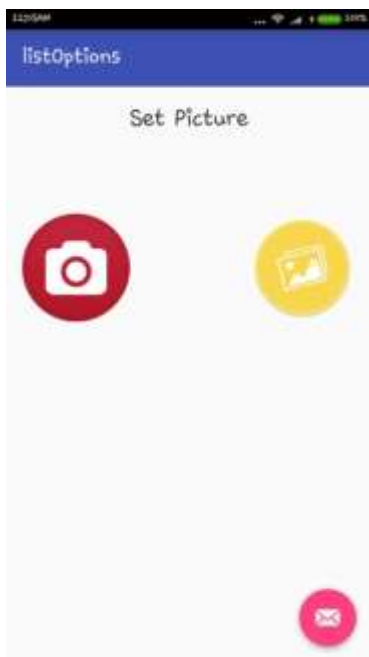
4. Camera is chosen to take a Picture for locating the address.

5. Gallery Option is selected for choosing a photo.

6. After choosing a photo, the photo is located on the Map along with the Address.