



College of Engineering

Department of Computer Science and Engineering

CMP 354: Mobile Application Development

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**Application User Guide**

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## I. Application Overview

### A. Getting Started

*On-Campus Job Finder* is an application that provides students with convenient access to job opportunities offered by different departments in AUS, including jobs for teaching assistants, research assistants, library assistants, IT personnel, and event volunteers. Rather than constantly checking their emails, which are usually flooded with important announcements, students can receive notifications whenever a new job of any type is posted through this application. In fact, each student can choose the job types they would like to receive notifications for, allowing for a more customized experience. If a student finds a particular job opportunity interesting, he/she can add it to their personal wishlist before contacting the respective department for further information.

There are two types of users in this application:

#### 1. Student

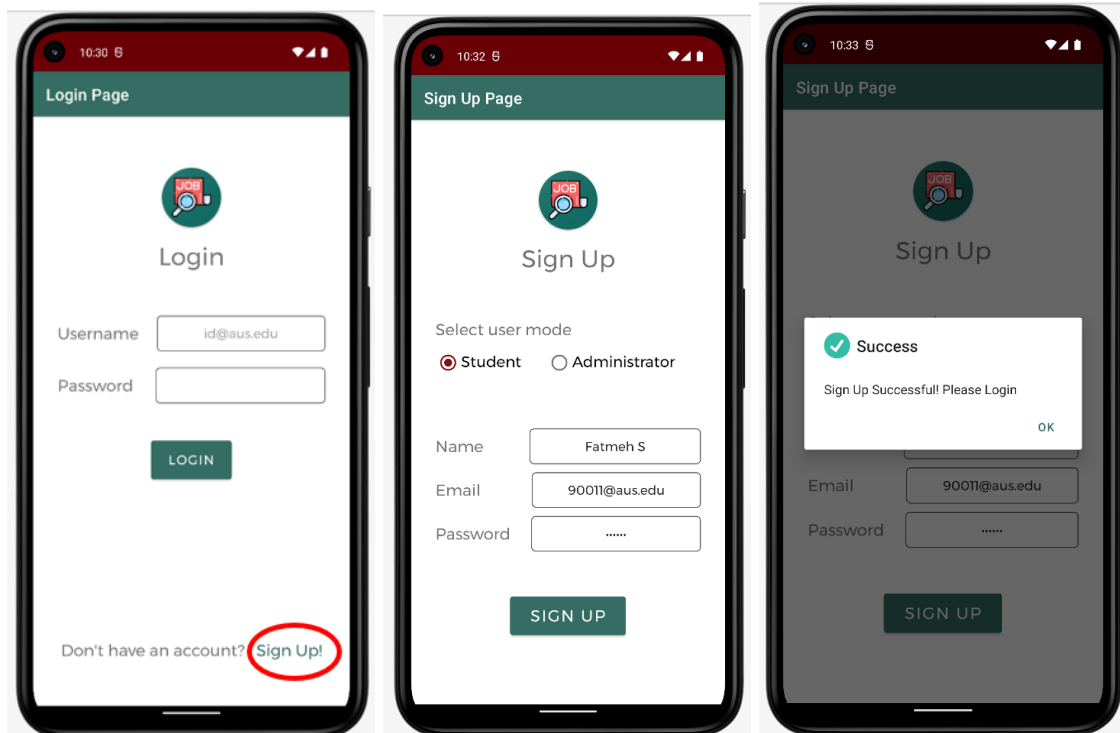
Student users have the privilege to view currently-offered jobs, add them to their wishlist, and view their job wishlist. Additionally, they may customize the notifications they would like to receive when a new job offering is posted

#### 2. Administrator

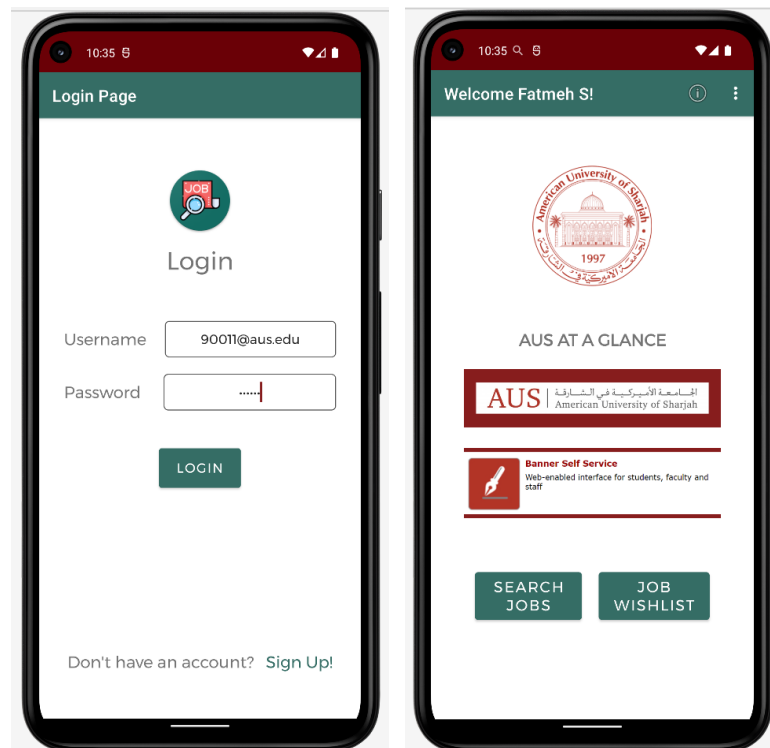
Administrator 'admin' users have the privilege to view currently-offered jobs, make any modifications to them (update an existing job or delete one completely), and post new job offerings.

### B. Login & Sign Up

On launching the application, you will be directed towards the Login Page. If you are a new user, press **Sign Up** to create an account. Select a user mode and fill all details; then press **Sign Up**. Note that your username must be a valid AUS email, and the password must be a minimum of 6 characters. If the sign up is successful, an alert dialog will appear. Press **OK**; you will be redirected to the Login Page to sign in with your credentials.

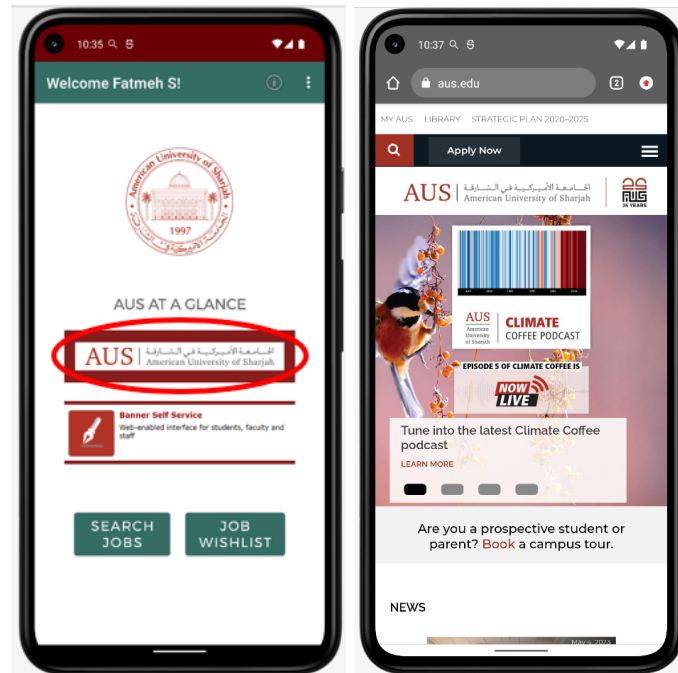


To sign in into your account, enter your username and password; then press **Login**. If the login is successful, you will be redirected to your respective home page.

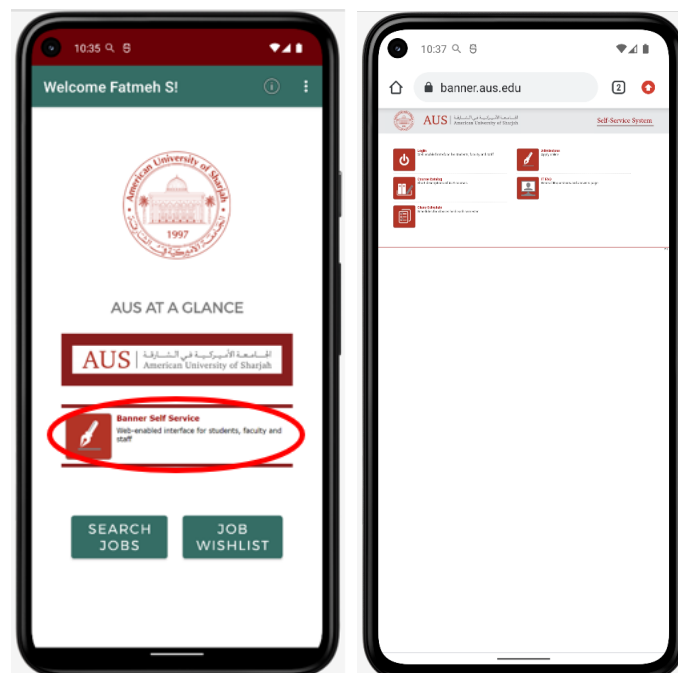


## II. Home Page

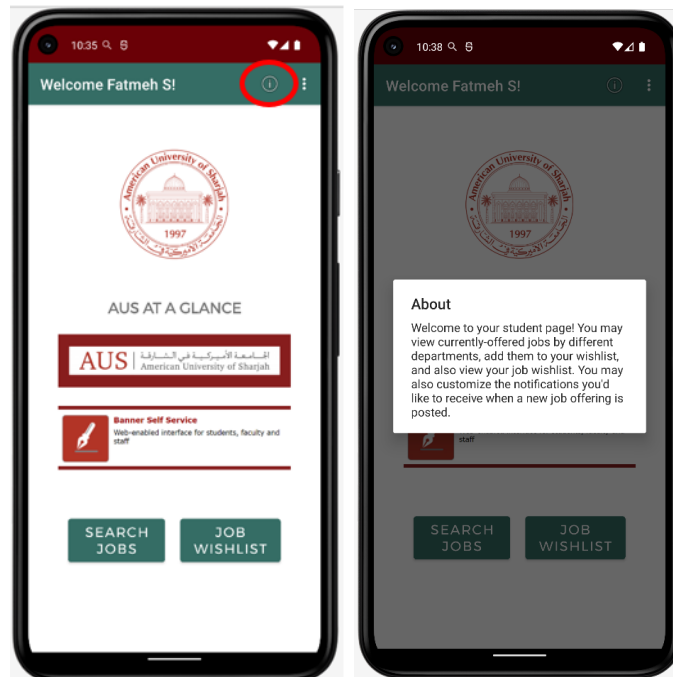
Regardless of the user mode, once logged in, you are redirected to your Home Page, from which you can access the AUS website and Banner. On the top right corner, there are menu items to view more information and log out. To access the AUS website, press on the framed AUS logo as shown below:



To access AUS Banner, press on **Banner Self Service** as shown below:



To view more information about your privileges, press on the information icon on the action bar



To log out, press on the three-dot menu on the top right corner, then press on **Log Out**



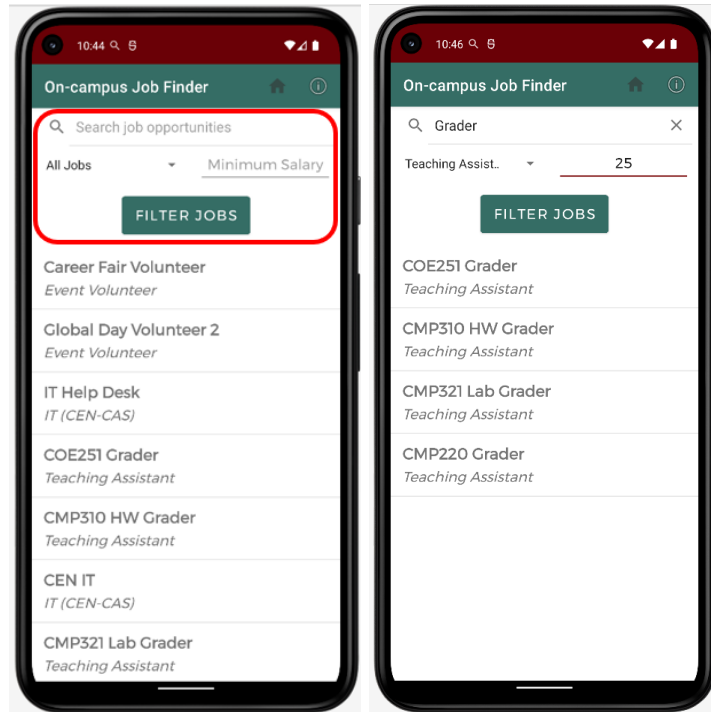
### III. Student User Privileges

While in Student Mode, the Home Page will contain two buttons: **Search Jobs** and **Job Wishlist**. The menu will also contain an additional menu item titled **Job Alert Settings**. These buttons will allow the following functionalities:



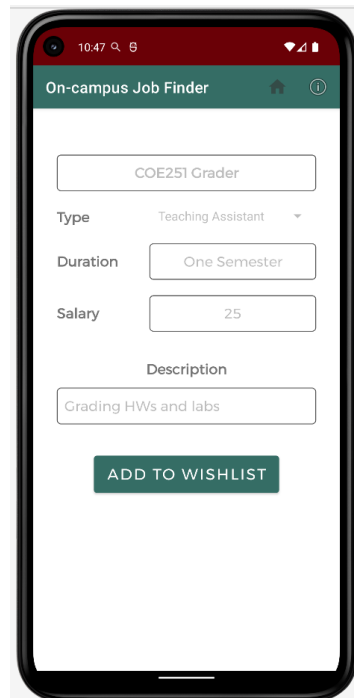
#### A. View All Job Opportunities

Once pressed, the **Search Jobs** button will take you to a new page showing a list of all the currently available job opportunities. At the top of this page, there is a search bar with a drop down menu and editable field. The search bar allows you to type any search key which, once the **Filter Jobs** button is pressed, will display the jobs containing matches in the titles. The drop-down menu allows you to select all or one of the types of jobs to display after pressing the **Filter Jobs** button. Finally, the editable field asks for the minimum salary you would like to filter out for the jobs. Only jobs with a paying salary of the minimum or greater will be displayed in the list once the **Filter Jobs** button is pressed.



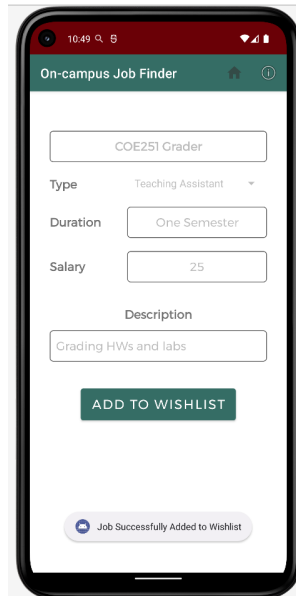
### B. Add Job to Wishlist

After pressing the **Search Jobs** button and filtering the list of jobs to your preference, you can select any of the job posts in the list to open the details page of that post. There you will find the title, opportunity type, employment duration, paying salary, and description of the job.



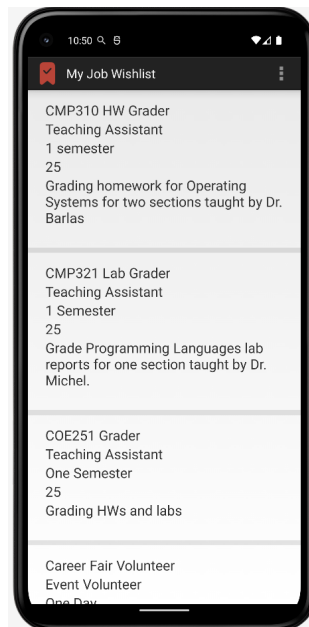


Now, you have the choice to save the job's details in your wishlist to keep as a reference. Simply press the **Add to Wishlist** button and a toast message will appear at the bottom of the page confirming the save. If you press the **Add to Wishlist** button for a job that is already in your wishlist, the toast message will inform you it has already been added and no change will occur.

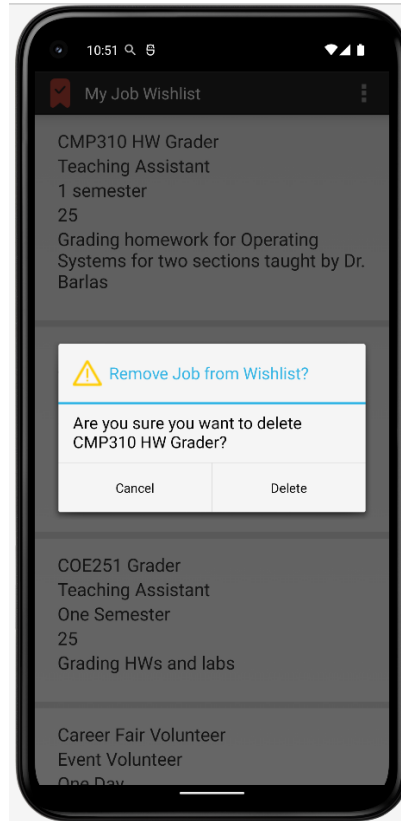


### C. View Job Wishlist

From the Home Page, pressing the **Job Wishlist** button will take you to your personal wishlist which contains the details of all the jobs that have been added to your wishlist.



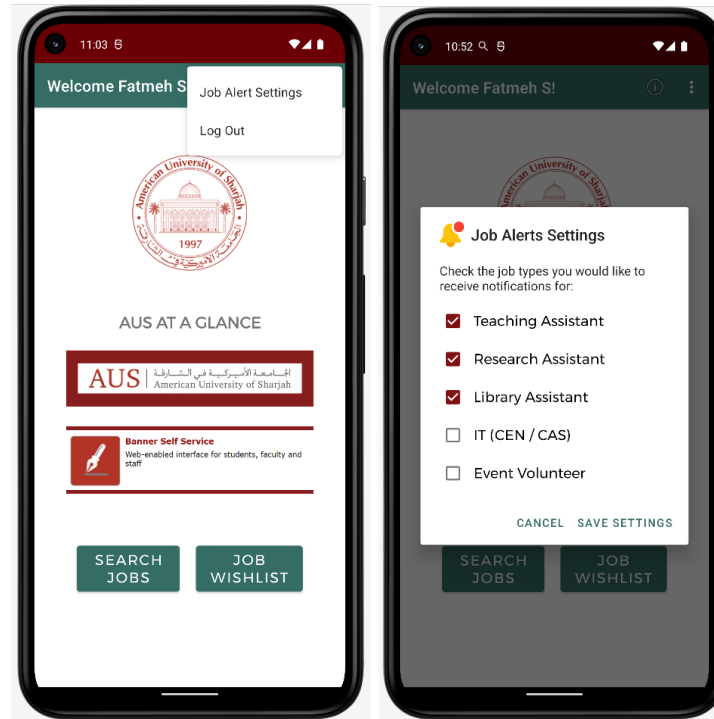
Pressing on any one of the jobs will display a dialog box asking if you would like to remove the job from your wishlist. Simply press **Delete** to remove the job, or press **Cancel** to keep it.



*Note: For all of the above mentioned pages, a menu is available with two menu items displayed as a **Home** icon and **Information** icon. Pressing the **Home** icon will take you back to the Home Page while pressing the **Information** icon will display an **About** dialog, describing the purpose of this app.*

#### D. Notifications

Pressing the **Job Alert Settings** from the Home Page Menu Bar will open a dialog box with the five job types listed along with checkboxes. This dialog allows you to select which job types you would like to receive update notifications from. By default all of the types are selected. Check or uncheck the job types according to your preferences and then press the **Save Settings** button. To exit the dialog without making any changes, press **Cancel**.



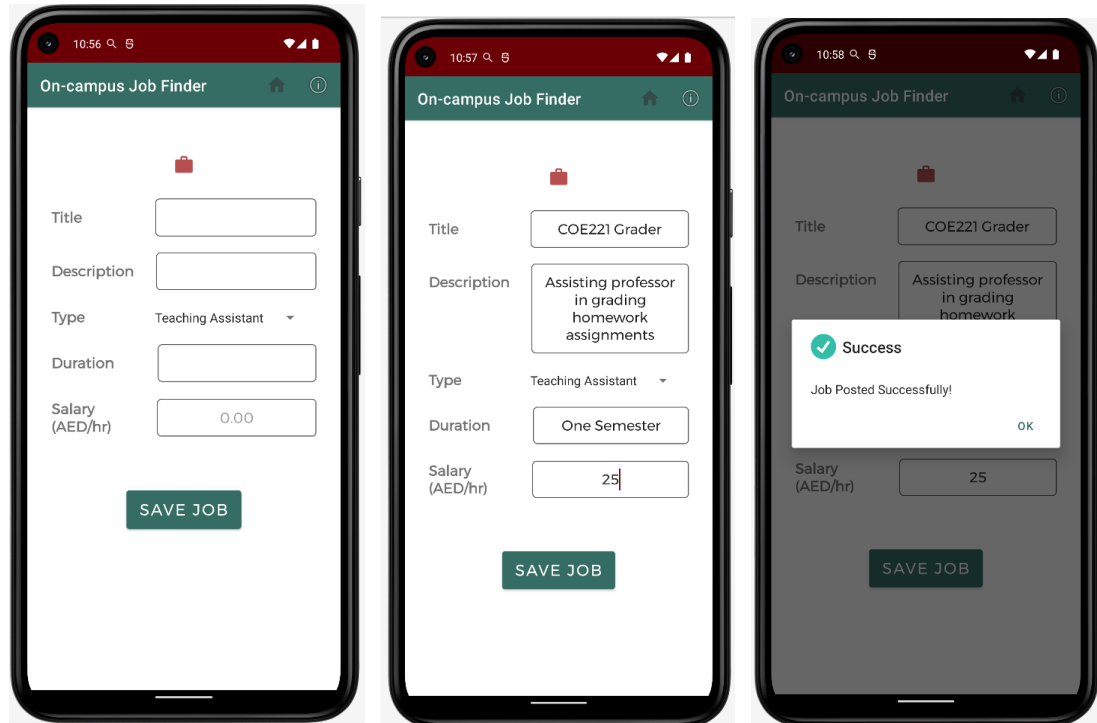
#### IV. Administrator User Privileges

While in Administrator Mode, the Home Page contains two buttons: *Post Jobs* and *View Jobs*. These buttons will allow the following functionalities:



### A. Post a Job

Once pressed, the **Post Job** button redirects you to a new page that allows you to post a new job opportunity. For each job, you need to enter the title, description, duration, and salary in AED per hour, as well as select a type from the drop down menu. Note that all fields must be filled before proceeding; otherwise the application will not allow you to post the job. After pressing **Save Job**, an alert dialog appears to confirm that the job opportunity has been posted successfully. Press **OK** to be redirected back to the list of all available job opportunities. Additionally, a notification is generated to Student users who have their notifications enabled for that particular job type.



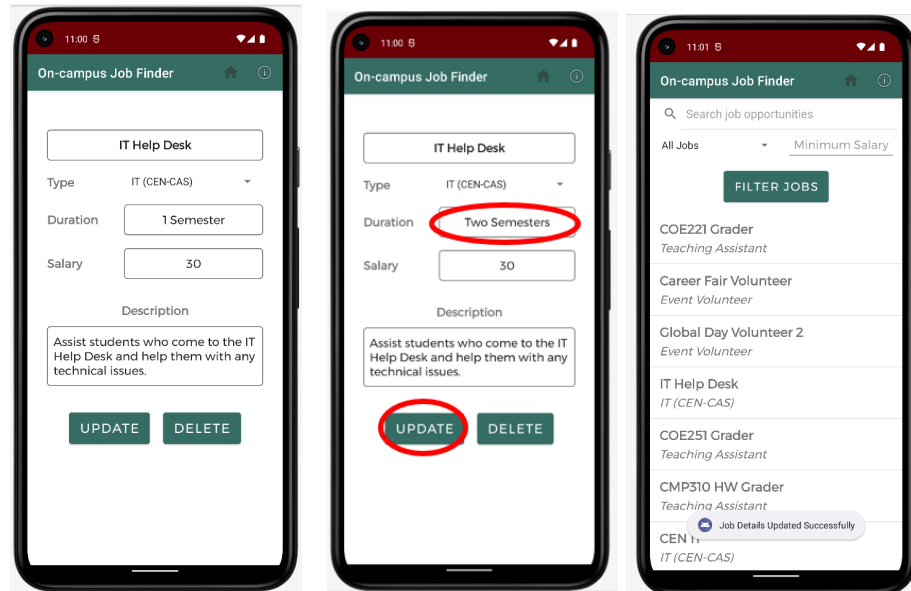
### B. View All Job Opportunities

Once pressed, the **View Jobs** button will take you to a new page showing a list of all the currently available job opportunities. At the top of this page, there is a search bar with a drop down menu and editable field. The search bar allows you to type any search key which, once the **Filter Jobs** button is pressed, will display the jobs containing matches in the titles. The drop-down menu allows you to select all or one of the types of jobs to display after pressing the **Filter Jobs** button. Finally, the editable field asks for the minimum salary you would like to filter out for the jobs. Only jobs with a paying salary of the minimum or greater will be displayed in the list once the **Filter Jobs** button is pressed.

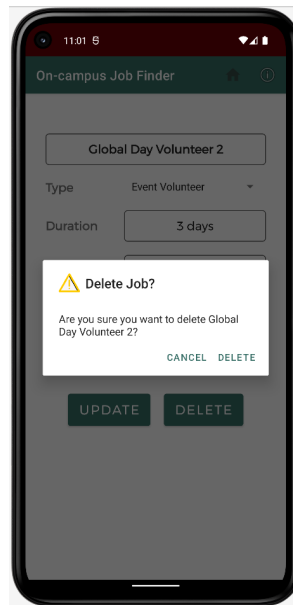
### C. Update/Delete a Job

After pressing the **View Jobs** button and filtering the list of jobs to your preference, you can select any of the job posts in the list to open the details page of that post. From this

page, you can choose to update any of the job attributes or delete the post completely. To update the job post, simply enter the new information in their corresponding editable fields and then press **Update**. A toast message will appear to confirm your changes.



To delete the job post, press **Delete**. An alert dialog will appear asking you to confirm your changes; press **Delete** to remove the job or **Cancel** to keep it.



*Note: For all of the above mentioned pages, a menu is available with two menu items displayed as a **Home** icon and **Information** icon. Pressing the **Home** icon will take you back to the Home Page while pressing the **Information** icon will display an **About** dialog, describing the purpose of this app.*

## V. References

### Icons

#### Warning Icon

- [https://www.flaticon.com/free-icon/warning\\_4231262?related\\_id=4231126&origin=search&h&k=1682703858162&sign-up=google](https://www.flaticon.com/free-icon/warning_4231262?related_id=4231126&origin=search&h&k=1682703858162&sign-up=google)
- Attribution ⇒ <a href="https://www.flaticon.com/free-icons/warning" title="warning icons">Warning icons created by Freepik - Flaticon</a>

#### Success Icon

- [https://www.flaticon.com/free-icon/check\\_463574?term=success&page=1&position=14&origin=search&related\\_id=463574](https://www.flaticon.com/free-icon/check_463574?term=success&page=1&position=14&origin=search&related_id=463574)
- Attribution ⇒ <a href="https://www.flaticon.com/free-icons/tick" title="tick icons">Tick icons created by Alfredo Hernandez - Flaticon</a>

#### Notifications Icon

- [https://www.flaticon.com/free-icon/notification\\_1827370?term=notifications&page=1&position=13&origin=search&related\\_id=1827370](https://www.flaticon.com/free-icon/notification_1827370?term=notifications&page=1&position=13&origin=search&related_id=1827370)
- Attribution ⇒ <a href="https://www.flaticon.com/free-icons/notification" title="notification icons">Notification icons created by Pixel perfect - Flaticon</a>

#### App Launcher Icon

- [https://www.flaticon.com/free-icon/job-search\\_1694787?term=job+search&page=1&position=10&origin=tag&related\\_id=1694787](https://www.flaticon.com/free-icon/job-search_1694787?term=job+search&page=1&position=10&origin=tag&related_id=1694787)
- Attribution ⇒ <a href="https://www.flaticon.com/free-icons/job" title="job icons">Job icons created by Freepik - Flaticon</a>

### Menu Not Showing on Activity Extending ListActivity

- <https://stackoverflow.com/questions/28159021/actionbar-not-working-when-extending-listactivity>
- From the above link, we used the following (to be added to the Manifest file):

Unset

```
<activity android:name=".MainActivity" android:label="@string/app_name"
android:theme="@android:style/Theme.Holo">
```

### Retrieving the Document ID of the Selected Item from an Adapter in a ListView

- Source: ChatGPT

**L** In Android Studio, how can I get the Firebase Firestore collections document ID if I selected an object from an adapter in a list view



To get the document ID of a selected object from an adapter in a ListView in Android Studio, you can follow these steps:

1. In your adapter class, set an OnClickListener for each item in the ListView.
2. In the onClick() method of the OnClickListener, get the position of the clicked item using the getPosition() method of the adapter.
3. Use the position to retrieve the corresponding object from your data source.
4. If your object has a field for the document ID, you can simply get it from there. Otherwise, you can use a query to search for the document that matches the selected object's properties.
5. Once you have the document ID, you can perform any Firestore operations on that document as needed.

Regenerate response

Send a message.

Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT Mar 23 Version](#)

**L** what if I am using a SimpleAdapter adapter and do not have an adapter class



If you are using a `SimpleAdapter` to display data in a `ListView`, you can still get the document ID of the selected item by using the `OnItemClickListener` interface. Here's an example:

#### Code Generated:

```
// Define the data to be displayed in the ListView
List<Map<String, Object>> data = new ArrayList<>();
Map<String, Object> item1 = new HashMap<>();
item1.put("name", "John");
item1.put("age", 25);
data.add(item1);
Map<String, Object> item2 = new HashMap<>();
item2.put("name", "Jane");
item2.put("age", 30);
data.add(item2);

// Create a SimpleAdapter to display the data in the ListView
SimpleAdapter adapter = new SimpleAdapter(
    this,
    data,
    android.R.layout.simple_list_item_2,
    new String[]{"name", "age"},
    new int[]{android.R.id.text1, android.R.id.text2}
);
listView.setAdapter(adapter);
```

```
// Set an OnItemClickListener for the ListView
listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int position, long id) {
        // Get the selected item
        Map<String, Object> selectedItem = (Map<String, Object>)
adapterView.getItemAtPosition(position);

        // Get the document ID of the selected item
        FirebaseFirestore db = FirebaseFirestore.getInstance();
        db.collection("myCollection")
            .whereEqualTo("name", selectedItem.get("name"))
            .whereEqualTo("age", selectedItem.get("age"))
            .get()
            .addOnSuccessListener(new OnSuccessListener<QuerySnapshot>() {
                @Override
                public void onSuccess(QuerySnapshot queryDocumentSnapshots) {
                    if (!queryDocumentSnapshots.isEmpty()) {
                        String documentId = queryDocumentSnapshots.getDocuments().get(0).getId();
                        // Do something with the document ID
                    }
                }
            });
    }
});
```

In this example, we create a `SimpleAdapter` to display a list of names and ages in the `ListView`. We then set an `OnItemClickListener` for the `ListView`, which retrieves the selected item and uses a Firestore query to find the document that matches the selected item's properties. Once we have the document ID, we can perform any Firestore operations on that document as needed.

- From the above code, we used:

```
// Get the selected item
Map<String, Object> selectedItem = (Map<String, Object>)
adapterView.getItemAtPosition(position);

// Get the document ID of the selected item
db.collection("myCollection")
    .whereEqualTo("name", selectedItem.get("name"))
    .whereEqualTo("age", selectedItem.get("age"))
    .get()
    .addOnSuccessListener(new OnSuccessListener<QuerySnapshot>() {
        @Override
        public void onSuccess(QuerySnapshot queryDocumentSnapshots) {
```



```
        if (!queryDocumentSnapshots.isEmpty()) {  
            String documentId =  
queryDocumentSnapshots.getDocuments().get(0).getId();  
            // Do something with the document ID  
        }  
    }  
});
```