Mobile Application Development
MyRent Settings

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Settings
Overview

Android Preference Framework facilites:

- Storage of list of key-value pairs
- Conventionally referred to as *Settings*
- *Settings* accessible from menu
- *Settings* pane presents user option to enter data
- Once entered, data persists

```
key : value
username : password
```

Settings

Accessible from overflow menu

Settings

Accessible from overflow menu
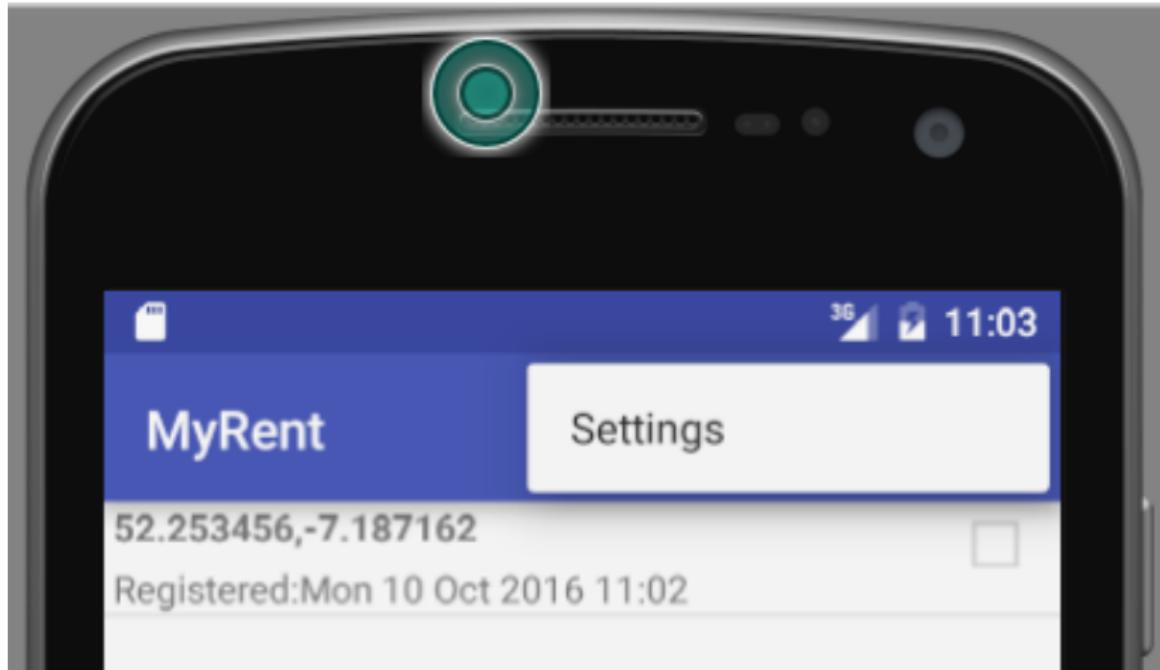
Settings

User input pane
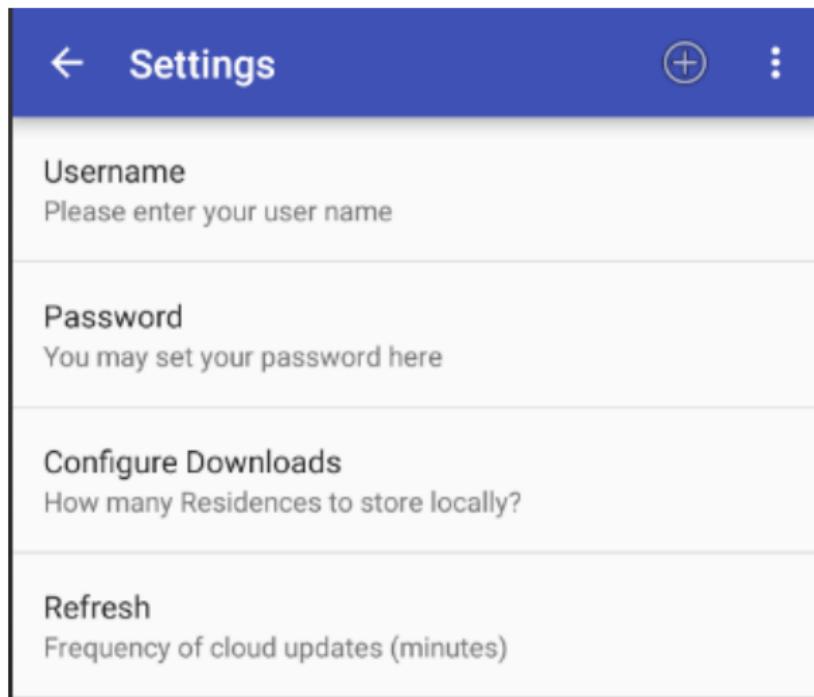
Settings

Package layout - settings classes in own package
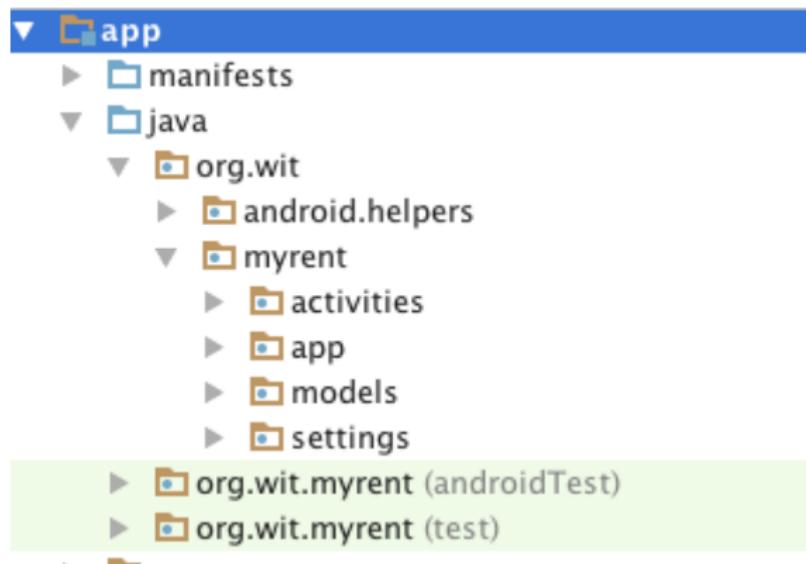
SettingsActivity

onCreate

```java
public class SettingsActivity extends AppCompatActivity {
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    ...
    ...
    }
  }
  ...
}
```

SettingsActivity

Inflate menu

```java
public class SettingsActivity extends AppCompatActivity {
  ...
  ...
  @Override
  public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.residencelist, menu);
    return true;
  }
}
```

Settings

Add a settings menu item - residencelist.xml

```xml
<menu...>
  <item ...>
  ...
  </item>

  <item
      android:id="@+id/action_settings"
      android:orderInCategory="100"
      app:showAsAction="never"
      android:title="@string/settings"/>

</menu>
```

SettingsFragment

Launch SettingsActivity

```java
@Override
public boolean onOptionsItemSelected(MenuItem item) {
  ...
  ...
  case R.id.action_settings:
    Intent intent = new Intent(getActivity());
    startActivity(intent, SettingsActivity.class));
    return true;
  ...
  ...
}
```

SettingsFragment

UI declared in res/xml/settings.xml

```java
public class SettingsFragment extends PreferenceFragment
{
  @Override
  public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    addPreferencesFromResource(R.xml.settings);
  }
}
```

Settings UI

File: settings.xml

```xml
<PreferenceScreen xmlns:android="http://schemas.android.com/apk/res/android" >
  <EditTextPreference
      android:key="username"
      android:summary="@string/username_summary"
      android:title="@string/username"/>

  <EditTextPreference
      android:key="password"
      android:summary="@string/password_summary"
      android:title="@string/password"
      android:inputType="textPassword"/>

  <EditTextPreference
      android:key="nmr_residences"
      android:summary="@string/nmr_residences_summary"
      android:title="@string/nmr_residences"
      android:inputType="text"/>

  <EditTextPreference
      android:key="refresh_interval"
      android:summary="@string/set_refresh_interval_summary"
      android:title="@string/set_refresh_interval"
      android:inputType="text"/>

</PreferenceScreen>
```

Settings UI

User interface screen
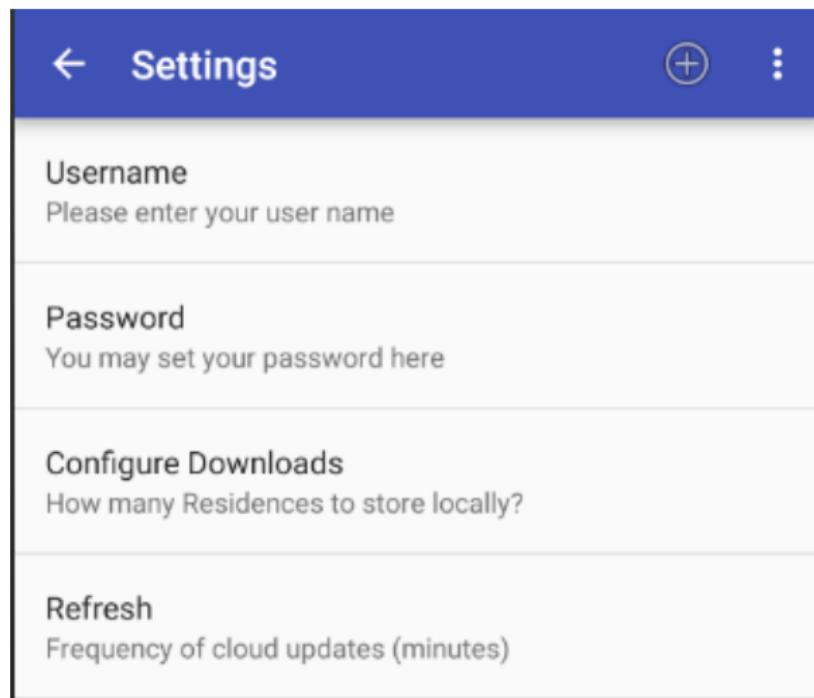
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SettingsFragment - Capture & persist user-input settings

```java
private SharedPreferences prefs;
```

```java
@Override
public void onStart()
{
  super.onStart();
  prefs = PreferenceManager
          .getDefaultSharedPreferences(getActivity());
}
```

Settings

SettingsFragment - listen for settings changes

```
// Implement this interface
OnSharedPreferenceChangeListener
```

```
// Implement OnSharedPreferenceChangeListener method
  @Override
  public void onSharedPreferenceChanged(SharedPreferences prefs, String key)
  {

  }
```

Settings

SettingsFragment - listen for settings changes

```java
@Override
public void onSharedPreferenceChanged(SharedPreferences prefs, String key)
{
  Log.d(TAG, "Key " + key + " " + prefs.getString(key, ""));
}
```

Settings

SettingsFragment - register and unregister listener

```java
@Override
public void onStart() {
  ...
  prefs.registerOnSharedPreferenceChangeListener(this);
}
```

```java
@Override
public void onStop() {
  ...
  prefs.unregisterOnSharedPreferenceChangeListener(this);
}
```

Referenced Material

1. Android Documentation: Settings

`https: //developer.android.com/guide/topics/ui/settings.html`

[Accessed 2016-10-10]

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