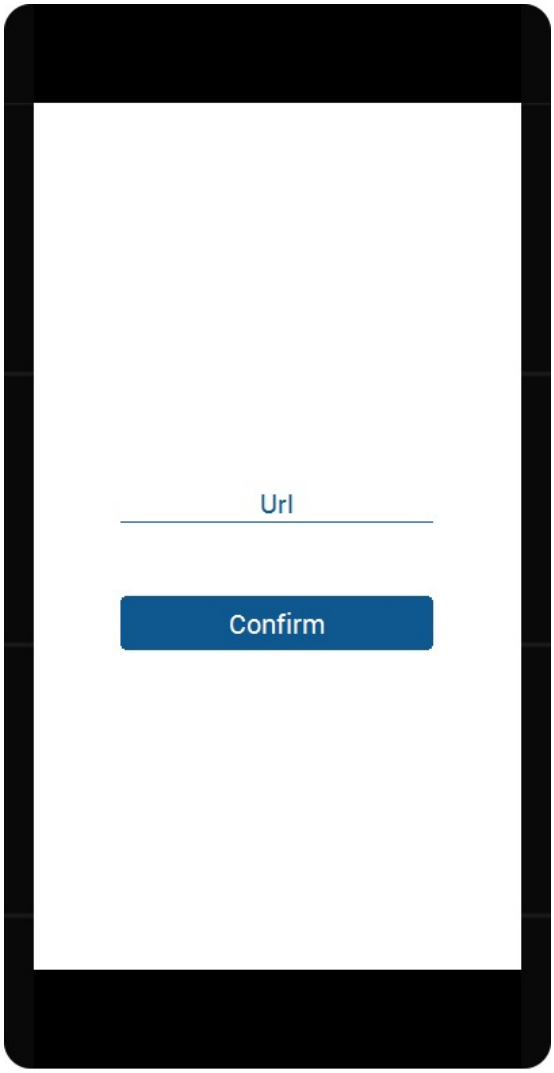
Assignment 1

In this assignment, you will practice more with intents, such as getting data from an activity, and opening a URL using the browser app of the device.

General Scenario:

In the first page, initially one button is shown which opens a second page when clicked:

In the second page, user can enter a URL in a text input. Then by clicking a confirm button, the result should be sent back to the first page:



In this state, the entered URL should be shown in the first page in a text label. Also an *Open URL* button should now be shown in the first page. By clicking on it, the URL should be opened by the browser app of the device.

Notes about Implementation:

1. For this assignment, the formatting of the page layouts is not important. We recommend you use a LinearLayout as the main layout, with gravity property set to *center* for a display similar to the figures above.

2. For text inputs, you can use EditText and for text labels you can use TextView. It is possible to find a UI control in the code with its ID property using the findViewById method. Also the text of text-based UI controls can be retrieved using getText method and can be set using setText.

3. For the required inputs in your app, e.g. the URL text input, you should check whether the input is entered properly before returning the data. In case of empty or invalid input, a Toast message should be displayed.

4. You can make UI controls visible or invisible using visibility property in layout files or using setVisibility method in the code.

5. For all the constant strings in your layout or code files, you should use the strings XML resource file instead of hardcoding the strings in the code.

6. For getting the URL from the second activity, the first activity can start the second activity only for getting a result back. This can be done by using the startActivityForResult method instead of the normal startActivity.

Also the second activity should use the setResult method to send the result intent with URL back to the first activity when the URL is confirmed.

Then the first activity is notified of the result through the onActivityResult method. This is a callback method similar to onCreate which is called when the second activity sends back the result to the first activity. Here is where the entered URL can be read from the returned intent.

You can see an explanation and a different example of this mechanism here.

7. For opening the URL using the device's browser, you can use an implicit intent which requests to share the URL with all the apps on the device which are capable of opening and viewing contents. Check this link for some general explanation.

8. For the details of implementation of all your assignments, feel free to search the web or check the links provided in the assignment description or any other resource you find appropriate. However, you should not copy any piece of code; Instead, you should understand the concepts and then write the codes on your own.

Notes about Submission:

You should submit a zipped file which includes both your root project folder and the final APK file of your project. You can find the generated APK file of your project in the path *YOURPROJECT/app/build/outputs/apk* on disk.

In order to reduce the size of the project for submission, you can remove the build folder of your project, which is in the path *YOURPROJECT/app/build*. Make sure to get out the APK file before removing this folder.