

## ECE 4564: Network Application Design Assignment 1

### Application Name: Lokator

#### **Purpose:**

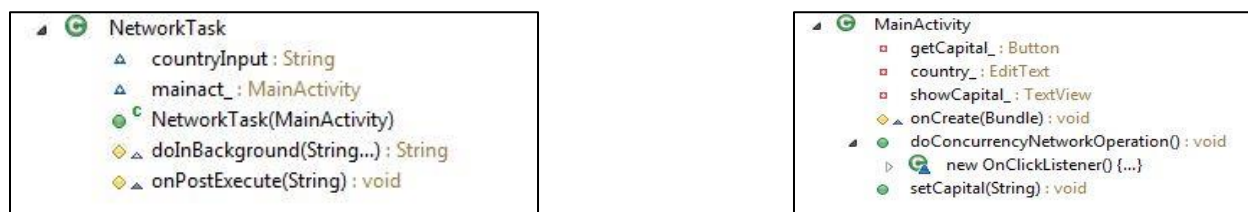
The purpose of this application is to allow the user to find out about the capital cities of any country across the globe. The user can enter any country and the application communicates with an online database to return the capital of that particular country. If the user enters an invalid value for the country, the application asks for another user input. This project serves as a preliminary introduction to get acquainted with the concept of programming for Android, communicating with web pages using HTTP and parsing using Java methods.

#### **High-level Source Code Organization:**

The user enters the desired country in a text box and must click on the button underneath which submits a query to the web page (<http://www.countries-ofthe-world.com/capitals-of-the-world.html>) that serves as a database. The user input is parsed and matched with the source code of the web page and when a match occurs for the country name, the resulting capital city is parsed based on the list item and returned as a response from the web page.

This response is then returned to the UI and displayed underneath the button clicked. The name of the country entered is case-sensitive and HTTP GET is used to receive the necessary data from the web page. The post-processing involved includes parsing the data entered by the user and also parsing the data returned by the web page. In addition, the entire design is thread safe and does not have any race conditions. The application does not block the UI thread while the HTTP request is running on the background thread.

#### **Class Diagrams:**



**Sequence Diagrams:**