

German University in Cairo

Information Engineering and Technology (IET)

Networks Department

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Network Protocols

Milestone 0

Deadline: 6/4/2022

I. Milestone Description

This milestone is an exercise on using Android Studio and getting familiar with the coding environment. This milestone also introduces socket programming and getting used to using it. The following sections describe the requirements of the milestone as well as the deliverables.

II. Requirements

In this milestone, you are required to develop an android program that communicates with a server through a TCP socket. The flow of the application should be as follows:

1. The server should open a socket and listen to any connection requests.
2. The android application should act as a client and initiate a connection to the server.
3. The client (android application) should then proceed to send a string message to the server.

4. The server should receive the string message, convert it into CAPS (all capital letters) and then echo it back to the client.
5. The client should receive back the echoed CAPS string message.

Notes:

1. The server could be implemented in any language that supports socket connections (ex: Python, Java, C++ Etc.)
2. Starting the connection from the application should be done after pressing a button (It is preferable to have two buttons, one for initiating the connection and one for sending the string message. This will be considered BONUS).
3. The string message can be hard-coded in the application code (Using a user input as the string message is considered BONUS)
4. The received echoed message by the client should be displayed in the application (Using a text field, Toast Etc.).

III. Deliverables

Submissions are expected to have the following:

1. The server code
2. The android application

IV. Github Integration with Android Studio

You should follow the steps in this video to upload your android code on GitHub for milestone submission.

<https://www.youtube.com/watch?v=-dAr6VnmomM>

V. Submission

This milestone should be submitted **individually**. Any cheating case will be given a grade of **Zero**.

Please submit your GitHub Clone or Repository link in the following google form link:

<https://forms.gle/Xt3ntFyiuny4prKP7>