National College of Ireland

Configuration Manual

MSc Internship
MSC CYB

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MSc Project Submission Sheet

School of Computing

Student Name: Swapnil Ganesh Jadhav

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Programme: MSC CYB **Year:** 2019-2020

Module: …Academic Internship

Lecturer: …Ross Spelman…

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Project Title: Protecting the integrity of android applications by employing automated self-introspection methods

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1 Downloading and Installing Dependencies

Base operating system can either be Windows or any Ubuntu / Debian flavoured O.S.

1) Android Studio – The IDE can be downloaded from here [1]. Once downloaded, proceed to install it with the default configuration settings.
2) SDK – Appropriate SDK version is to be downloaded and installed from within the IDE. Or just importing the project in the IDE will automatically install the required SDK version before building it.
3) JDK – JDK 8 has been used and can be found here [2]. Install this package and provide the path in the IDE.
4) Android Virtual Device (avd) – An avd must be created [3] from the AVD manager from within the Android Studio.

2 Setting up the project

1) Import the android studio project in the IDE and compile it [4].
2) The server-side logic is hosted on Pythonanywhere.com under the subdomain name – '/rorschak'.
3) The 'server_logic.py' is developed in python-flask backed by the mysql database available on the hosting domain. This file to be executed after configuring it with other server parameters.
4) After building he android application in the Android Studio IDE it is to be deployed on the created AVD.

3 Executing the solution

1) After building and installing the client apps they can be launched on the emulator.
2) The server.py file is to be executed on the server. Since we have already set this up on the online hosting domain. The server logic is up and running. Only the client applications must be built and deployed on the emulator or android device.

References

[1] "Android Studio", developer.android.com/studio, 2020. [Online]. Available: https://developer.android.com/studio. [Accessed: 17- Aug- 2020]

[2] "Java SE - Downloads | Oracle Technology Network | Oracle Ireland", Oracle.com, 2020. [Online]. Available: https://www.oracle.com/ie/java/technologies/javase-downloads.html. [Accessed: 17- Aug- 2020]

[3] "Create and manage virtual devices", developer.android.com, 2020. [Online]. Available: https://developer.android.com/studio/run/managing-avds. [Accessed: 17- Aug- 2020]

[4] "Build and run your app | Android Developers", Android Developers, 2020. [Online]. Available: https://developer.android.com/studio/run. [Accessed: 17- Aug- 2020]