

Configuration Manual

MSc Research Project Cyber Security

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MSc Project Submission Sheet

School of Computing

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| Programme: | MSCCYB1 | | Year: 1 | |
| Module: | RESEARCH IN COMPUTING | | | |
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| Submission Due Date: | 18/09/2023 | | | |
| Project Title: | DETECTING PHISHING URLS IN QR CODES USING HEURISTIC TECHNIQUES | | | |
| Word Count: | 539 | Page Count 2 | | |

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Date: 17/09/2023

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Configuration Manual

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1 Introduction

This document presents the details on how to execute the PhishScan, an Android mobile application which detects phishing URLs in QR codes. The entire code has been written in the Kotlin programming language, while the frontend is developed in xml language and API calls are using JSON.

2 System Requirements

There are two approaches to run this application on a compatible Android device:

2.1 Download the pre-packed APK from the link provided and install the application.

Follow the shared link¹, download the APK and install it on the smartphone.

2.2 Run the app from Android Studio software (GitHub).

This method assumes that the reader has some basic knowledge of using GitHub code repositories (for e.g., pull code or download code as zip). Following software and packages need to be installed on a Windows 10/11 system:

- a. Android Studio² is the official Android development IDE used for developing all Android device's applications.
- b. SDK 13.0 ("Tiramisu"), API level 33
- c. Java Version 1.8³
- d. Pull the code from GitHub: https://github.com/ahmerk-me/PhishScan

2.2.1 Setting up the environment

- a. Install Android Studio
- b. Install java.

¹ https://studentncirl-

my.sharepoint.com/:u:/g/personal/x21201544_student_ncirl_ie/EYissU4TuuRIgzJREIEAs7EBwHa6YHSbRBMjGe XGLw9teA?e=TmTaS2

² https://developer.android.com/studio

³ https://www.oracle.com/ie/java/technologies/javase/javase8-archive-downloads.html

c. Install SDK13 from **Tools > SDK Manager** (Figure 1).

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|---------------|----------------------------|-----|--|---------------------------------------|-------------|--------------------------------------|--|
| | | | Languages & Frameworks > Android SDK | | | $\leftarrow \rightarrow \frac{1}{2}$ | |
| > | Appearance & Behavior | | Manager for the Android SDK and Tools used by the IDE | | | | |
| | Keymap | | Android SDK Location: C:\Users\Admin\AppData\Local\Android\Sdk Edit Optimize dis | | | ize disk space | |
| > | Editor | | | | | ī | |
| | Plugins | | SDK Platforms SDK Tools SDK Update Sites | | | | |
| > | Version Control | | Each Android SDK Platform package includes the Android platform | m and sources pertaining to an A | PI level by | | |
| \rightarrow | Build, Execution, Deployme | ent | default. Once installed, the IDE will automatically check for updates. Check "show package details" to display individual SDK components. | | | | |
| | Languages & Frameworks | | Name | API Level | | | |
| | | | Android API 34 | 34 | | Not installed | |
| | > Schemas and DTDs | | Android UpsideDownCakePrivacySandbox Preview | UpsideDownCakePrivacySandb | | | |
| | | | Android TiramisuPrivacySandbox Preview | TiramisuPrivacySandbox | | Not installed | |
| | | | Android 13.0 ("Tiramisu") | | | Update available | |
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| r | | | | | | Not installed | |
| 2 | Template Data Languages | | 🗹 Android 12L ("Sv2") | | | Installed | |
| | Tools | | ✓ Android 12.0 ("S") | | | Installed | |
| | Advanced Settings | | Android 11.0 ("R") | | | Partially installed | |
| | Kotlin Compiler | | Android 10.0 ("Q") | | | Not installed | |
| | Evnerimental | | Android 9.0 ("Pie") | | | Partially installed | |
| | Experimental | | 🗹 Android 8.1 ("Oreo") | | | Installed | |
| | | | Android 8.0 ("Oreo") | | | Not installed | |
| | | | Android 7.1.1 ("Nougat") | | | Not installed | |
| | | | Android 7.0 ("Nougat") | | | Not installed | |
| ł | | | Android 6.0 ("Marshmallow") | | | Not installed | |
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Figure 1: SDK Manager

- d. Open project from **File > Open** and select the unzipped project folder, let the project build.
- e. After successfully building the app, we can either connect an Android device to the Laptop/PC and run the application on it by turning USB debugging ON or create an APK then transfer it to the smartphone and install.

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Figure 2: Menu to create APK from Android Studio