Configuration Manual

MSc Research Project
MSc. In Cyber Security

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Programme:	MSc in Cyber Security **Year:** 2022-2023
Module:	MSc Research Project
Lecturer:	Dr Vanessa Ayala-Rivera
Submission Due Date:	15/12/2022
Project Title:	Enhancing Authorization and Authentication in Cloud Services using Blockchain
Word Count:	666 **Page Count:** 4

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Date:	15/12/2022

PLEASE READ THE FOLLOWING INSTRUCTIONS AND CHECKLIST

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1   Introduction

The configuration manual provides a detailed overview of the hardware and software used in the project. It also explains the necessary steps to install and reproduce the work. The following sections cover the various requirements that are needed to make the project work.

2   Environment Specifications

These requirements are for the Research Project. Before a program or data can be run, various steps need to be taken.

2.1   Hardware Specifications

The following are the minimum hardware requirements for this research project:
1) System: Laptop
2) Operating System: Windows 11 (64-bit Operating System) or higher
3) RAM: Minimum 8 GB
4) Hard Disk: 256 GB (SSD) or more
5) Graphic Card: 4GB or more

2.2   Software Specifications

The following are the minimum hardware requirements for this research project:
1) Operating System: Windows 10
2) Programming Language and version: Python version 3.9
3) IDE: Anaconda

2.3   Libraries

Libraries that are required to run the python scripts.
- Slocx
- Boto3
- Base64
- Random
- Pandas

2.4   Prerequisites

To execute the code, several prerequisites must be met.
1) Download and Install the Python 3.9 (https://www.python.org/downloads/release/python-3916/)
2) Download and Install Anaconda3 (https://www.anaconda.com/)

3) Create an account on Amazon AWS (https://aws.amazon.com/)

4) Download and install Ganache UI (https://www.trufflesuite.com/ganache)

5) After installing all the software's, download the anaconda environment from the following link

(https://studentncirl-my.sharepoint.com/:u:/g/personal/x21112541_student_ncirl_ie/EVkdGtQ8-EBAhRIclMpzwksBqm7A9BvesK8NX9TF_58HTw?e=dux7Ld)

3   Installation

- After installing the software and libraries, we will perform the next steps.
- To check the version of python, we will first need to type in the command python --version in PowerShell.
- After installing Anaconda, extract the environment from the above code file in the envs folder.
- The Ganache UI is a blockchain-based app that can be downloaded from the blockchain suite's website at https://trufflesuite.com/ganache. Run it and create a new workspace.
- The following steps will take place in the Anaconda Navigator, which is a GUI that allows users to launch different environments in the Anaconda.
- After that run the following commands: -
  - In prompt Navigate to 'Blockchain_Fullcode' folder: - cd /d <Path to Code folder>
  - Run the command: activate ml_env
  - Run the command: python blockchain.py
  - Run the command: python manage.py makemigrations
  - Run the command: python manage.py migrate
  - Run command: python manage.py runserver
- After that copy the address and paste it into the browser. The website will start and work properly.