# Project Specification

# Home Network Security Analyzer

C00250995 - Matthew Kavanagh

## Introduction:

The Home Network Security Analyzer is a tool that is used to scan a local home network to discover devices and find security vulnerabilities. This will be achieved through a program that provides these functionalities through a graphical interface.

## Target Users/Use cases:

The planned purpose for the Home Network Security Analyzer is to help improve one of the most overlooked aspects of Cybersecurity, the home network. As the average person has little to no computer literacy few people are aware of the level of security implemented on their devices and network leading to many unknown vulnerabilities being present in the average home network. This problem has been exacerbated with the rise of the Internet of Things and Working From Home.

This tool will alleviate the aforementioned issues by allowing any user,regardless of technical know-how, to scan their home network and find any security issues that need to be addressed. To remain usable to even people with no tech skills the program must have a simple interface, avoid using confusing jargon and display it’s findings in an easy to understand manner.

## Features:

The core features of the project are planned to be:

* Scan a network to discover the connected devices.
* Determine the security on the devices and attempt to find any vulnerabilities.
* Generate report on the programs findings and display it in a simplistic way.

The minor features of the project are planned to be:

* Options to scan all devices on a network or a specific device.
* Check the Operating Systems and configurations of devices.
* Check for outdated software and improper configurations on devices.
* Give recommendations on things to change to make the network more secure.

## Precedent:

## Metric: