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Mobile Application Development COM-437-OL01

**Android App Project Outline**

# **Module One - May 12, 2022**

## Project description

I want to develop a crime watch application, specifically targeting my country.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip.

## Platform

MIT App Inventor is a web application integrated development environment originally provided by Google, and now maintained by the Massachusetts Institute of Technology (MIT). It allows newcomers to computer programming to create application software (apps) for two operating systems (OS): Android, and iOS, which, as of 8 July 2019, is in final beta testing. It is free and open-source software released under dual licensing: a Creative Commons Attribution ShareAlike 3.0 Unsupported license, and an Apache License 2.0 for the source code.

## Front/Back end support

It uses a graphical user interface (GUI) very similar to the programming languages Scratch (programming language) and the StarLogo, which allows users to drag and drop visual objects to create an application that can run on Android devices, while a App-Inventor Companion (The program that allows the app to run and debug on) that works on iOS running devices are still under development. In creating App Inventor, Google drew upon significant prior research in educational computing, and work done within Google on online development environments.

## Functionality

The application will use google maps to record the locations of incidents, incidents can be recorded in two ways: Crowd-Sourced or by administrators. There will be a search bar and predetermined search sections. Membership pages: Account, login, logout, registration, etc.

## Design

Please see pdf attached.

# Module Two - May 23, 2022

## Project Description

I want to develop a crime watch application, specifically targeting my country.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip.

## Platform

For an Android app there is not a better development program than Android studio, it is a no brainer. Android Studio provides a unified environment where you can build apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug.

## Back End Support

For the backend development of Android apps, developers use a form of JavaScript known as Node. js. This framework, among several other aspects, enables a developer to manage data changes from the frontend and create robust network frameworks capable of handling multiple concurrent user requests.

## Front End Support

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## Functionality

The application will use google maps to record the locations of incidents, incidents can be recorded in two ways: Crowd-Sourced or by administrators. There will be a search bar and predetermined search sections. Membership pages: Account, login, logout, registration, etc.

## Design

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# Module Three - June 2, 2022

## Project Description

I want to develop a crime watch application, specifically targeting my country. CRIMEWATCH app opens communication channels between law enforcement agencies and the community they serve.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip.

## Platform

For an Android app there is not a better development program than Android studio, it is a no brainer. Android Studio provides a unified environment where you can build apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug.

## Back End Support

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## Front End Support

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## Functionality

CRIMEWATCH opens communication channels between law enforcement agencies and the communities they serve. Use this app to browse crime related information from participating agencies. Information such as arrests, fugitives, incidents and other news comes directly from the Bahamian government. Users can anonymously contact participating agencies, or leave contact information. CRIMEWATCH partners with law enforcement and effectively routes intelligence where it needs to go.

Crime information from the Government agencies:

* Dashboards: Displays the top content near your current location, if there is any.
* Directory: Find the law enforcement agencies nearest to you.
* Maps: Browse and drill down into crime information.

Search, Filter and Explore:

* Arrested: Browse arrested individuals, complete with mugshots, charges, locations and narratives.
* Wanted: Browse active warrants to see who is 'most wanted' by local law enforcement.
* Cases: Browse active/cold/closed cases, including narratives and video.
* Incidents: See recent incidents in your area of importance.

Receive breaking news directly from the source:

* In the event of an emergency find important information on CRIMEWATCH first.
* Content on CRIMEWATCH is created directly by our network of law enforcement agencies.
* Drill down into content that is relevant to you by proximity or agencies you subscribe to.

Stay informed:

* Push Notifications – receive emergency alerts from your law enforcement agencies directly from the CRIMEWATCH application.
* Email Notifications – receive email notifications as crime occurs (real-time and daily/weekly digest options).

Share:

* Submit tips related to open warrants and cases on CRIMEWATCH.
* Submit tips related to new or unknown crimes you are aware of.
* Share content socially on Facebook and Twitter.
* Share content directly via Email and SMS.

## Design

Only works on android 5.1 and up.

Please see pdf attached.

# Module Four - June 7,2022

## Project Description

I want to develop a crime watch application, specifically targeting my country. CRIMEWATCH app opens communication channels between law enforcement agencies and the community they serve.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip.

## Platform

For an Android app there is not a better development program than Android studio, it is a no brainer. Android Studio provides a unified environment where you can build apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug.

## Back End Support

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## Front End Support

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## Functionality

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Search, Filter and Explore:

* Arrested: Browse arrested individuals, complete with mugshots, charges, locations and narratives.
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* Cases: Browse active/cold/closed cases, including narratives and video.
* Incidents: See recent incidents in your area of importance.

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* Submit tips related to new or unknown crimes you are aware of.
* Share content socially on Facebook and Twitter.
* Share content directly via Email and SMS.

## Design

Only works on android 5.1 and up. The app utilizes a bottom and top menu. The bottom bar which has:

* Home button, which redirects you to the homepage.
* More Details Button, which lists in detail crimes committed.

The top bar has:

* Search Icon, which expands and allows the user to search the app for something in particular.
* Menu Icon, the hamburger expands and shows menu options.
* Notification Icon, which tells you how many notifications that you have gotten.

Please see pdf attached (wireframes).

# Module Five – June 13, 2022

## Project Description

I want to develop a crime watch application, specifically targeting my country. CRIMEWATCH app opens communication channels between law enforcement agencies and the community they serve.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip.

## Platform

For an Android app there is not a better development program than Android studio, it is a no brainer. Android Studio provides a unified environment where you can build apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug.

## Back End Support

For the backend development of Android apps, developers use a form of JavaScript known as Node. js. This framework, among several other aspects, enables a developer to manage data changes from the frontend and create robust network frameworks capable of handling multiple concurrent user requests.

## Front End Support

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## Functionality

CRIMEWATCH opens communication channels between law enforcement agencies and the communities they serve. Use this app to browse crime related information from participating agencies. Information such as arrests, fugitives, incidents and other news comes directly from the Bahamian government. Users can anonymously contact participating agencies, or leave contact information. CRIMEWATCH partners with law enforcement and effectively routes intelligence where it needs to go.

Crime information from the Government agencies:

* Dashboards: Displays the top content near your current location, if there is any.
* Directory: Find the law enforcement agencies nearest to you.
* Maps: Browse and drill down into crime information.

Search, Filter and Explore:

* Arrested: Browse arrested individuals, complete with mugshots, charges, locations and narratives.
* Wanted: Browse active warrants to see who is 'most wanted' by local law enforcement.
* Cases: Browse active/cold/closed cases, including narratives and video.
* Incidents: See recent incidents in your area of importance.

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* Notification Icon, which tells you how many notifications that you have gotten.

At this point in the project, the application consist of 9 main pages, each pages does a specific thing:

1. Login Page
2. Create Account Page
3. User Profile Page
4. Notification Page
5. Home Page
6. Map Page
7. Incident Report Page
8. Detail Crime List Page
9. Chat

Please see pdf attached (wireframes).

# Module Six - June 26, 2022

## Project Description

I want to develop a crime watch application, specifically targeting my country. CRIMEWATCH app opens communication channels between law enforcement agencies and the community they serve.

## Problem Addressing

Crime is increasing in the Bahamas, there is a need to report these crimes. Also, Bahamians love to gossip, so my application can also act as entertainment for some, as long as we ae informing people it does not matter.

## Platform

Android Studio is the official [integrated development environment](https://en.wikipedia.org/wiki/Integrated_development_environment) (IDE) for [Google](https://en.wikipedia.org/wiki/Google)'s [Android](https://en.wikipedia.org/wiki/Android_(operating_system)) [operating system](https://en.wikipedia.org/wiki/Operating_system), built on [JetBrains](https://en.wikipedia.org/wiki/JetBrains)' [IntelliJ IDEA](https://en.wikipedia.org/wiki/IntelliJ_IDEA) software and designed specifically for [Android development](https://en.wikipedia.org/wiki/Android_software_development).[]](https://en.wikipedia.org/wiki/Android_Studio#cite_note-9) It is available for download on [Windows](https://en.wikipedia.org/wiki/Windows), [macOS](https://en.wikipedia.org/wiki/MacOS) and [Linux](https://en.wikipedia.org/wiki/Linux) based operating systems or as a subscription-based service in 2020. It is a replacement for the [Eclipse Android Development Tools](https://en.wikipedia.org/wiki/Eclipse_(software)#Android_Development_Tools) (E-ADT) as the primary IDE for native Android application development.

Android Studio was announced on May 16, 2013, at the [Google I/O](https://en.wikipedia.org/wiki/Google_I/O) conference. It was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version 1.0.

On May 7, 2019, [Kotlin](https://en.wikipedia.org/wiki/Kotlin_(programming_language)) replaced [Java](https://en.wikipedia.org/wiki/Java_(programming_language)) as Google's preferred language for Android app development. Java is still supported, as is [C++](https://en.wikipedia.org/wiki/C%2B%2B).

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## Back End Support

For the backend development of Android apps, developers use a form of JavaScript known as Node. js. This framework, among several other aspects, enables a developer to manage data changes from the frontend and create robust network frameworks capable of handling multiple concurrent user requests.

## Front End Support

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## Functionality

CRIMEWATCH opens communication channels between law enforcement agencies and the communities they serve. Use this app to browse crime related information from participating agencies. Information such as arrests, fugitives, incidents and other news comes directly from the Bahamian government. Users can anonymously contact participating agencies, or leave contact information. CRIMEWATCH partners with law enforcement and effectively routes intelligence where it needs to go.

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9. Chat

Please see pdf attached (wireframes).

# Module Seven – June 26, 2022

## Project Description

I want to develop a crime watch application, specifically targeting my country. CRIMEWATCH app opens communication channels between law enforcement agencies and the community they serve.

## Problem Addressing

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## Platform

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## Back End Support

Processing data in the background is an important part of creating an Android application that is both responsive for your users as well as a good citizen on the Android platform. Doing work on the main thread can lead to [poor performance](https://developer.android.com/guide/components/foreground-services) and therefore a poor user experience?

For the backend development of the app, we intend to use a form of JavaScript known as Node. js. This framework, among several other aspects, enables a developer to manage data changes from the frontend and create robust network frameworks capable of handling multiple concurrent user requests. The backend of the app is fully optimized and follows best practices.

## Design

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# MODULE Eight - July 1, 2022

## PROJECT DESCRIPTION

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## PROBLEM ADDRESSING

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## PLATFORM

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development.] It is available for download on Windows, macOS and Linux based operating systems or as a subscription-based service in 2020. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

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## FRONT END SUPPORT

Java. Java is the official platform-specific programming language for native Android apps. Android is mostly developed in Java, and its APIs are designed to be called from Java.

## FUNCTIONALITY

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• Search Icon, which expands and allows the user to search the app for something in particular.

• Menu Icon, the hamburger expands and shows menu options.

• Notification Icon, which tells you how many notifications that you have gotten.

At this point in the project, the application consist of 9 main pages, each pages does a specific thing:

10. Login Page

11. Create Account Page

12. User Profile Page

13. Notification Page

14. Home Page

15. Map Page

16. Incident Report Page

17. Detail Crime List Page

18. Chat

Please see pdf attached (wireframes).

# Work Cited

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