***APP DEVELOPMENT***

BeeWare allows you to write your app in Python and release it on multiple platforms. This is useful due to the fact that most iOS apps are made using Objective-C and Swift. The use of Beeware also means there will be no issues with build tools, environments, or compatibility.

Beeware provides tools that help provide Python code with a native user interface; and the libraries and support code necessary to get that code running on iOS, Android, macOS, Linux, Windows, and more.

·      ***Android app route***

o   Android's preferred language of implementation is Java – this means because we are writing our code in Python we need to have a way to run your Python code on a Java Virtual Machine.

o   This is what VOC can do. VOC is a transpiler

§  Transpilers are tools that read source code written in one programming language, and produce the equivalent code in another language.

o   This means that it will take our Python source code, compiles it to CPython Bytecode (Bytecode is code that has been compiled from source code into low-level code designed for a software interpreter), and then transpiles that bytecode into Java-compatible bytecode.

§  The result is that our Python source code files are compiled directly to a Java .class file, which can be packaged into an Android application.

§  VOC also allows you to access native Java objects as if they were Python objects, implement Java interfaces with Python classes, and subclass Java classes with Python classes.

o   Once you've written your native Android application, you can use **Briefcase** to package your Python code as an Android application.

o   **Briefcase** is a tool for converting a Python project into a standalone native application. You can package projects for:

§  Mac

§  Windows

§  Linux

§  iPhone/iPad

§  Android

§  AppleTV

§  tvOS.

·      ***IDE Environment***

o   a good environment can be anything you are comfortable with be it a text editor and a command line, or an IDE.

o   We as a group decide to go with the python IDE, Pycharm. It has a community edition which is free and was easy for all of us to download.

o   Pycharm has a similar environment as android studio, because they were made by the same company.