

# **INCEPTION REPORT**

## **Android IDE for Python Program**

Advanced Topics in Software Engineering

CSE 6324

Github link: [https://github.com/Priyanka-wakte/CSE-6324\\_Adv-SE---Team-8](https://github.com/Priyanka-wakte/CSE-6324_Adv-SE---Team-8)

### **Team 8:**

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## **Vision:**

To provide ease of convenience instead of going to a browser and search for online compilers, the following is an android application which is built to compile and run python code.

The application checks for syntactical errors in the code and if successfully compiled, it shows the output. It also shows the error after an unsuccessful compilation. The application will have the capability to report and auto-correct few syntactical errors.

## **Competitors:**

Our application is based on static code analysis. There are different tools available on the internet and few of the android based applications are listed below.

- QPython3 - Python3 for Android
- Pydroid 3 - Educational IDE for Python 3

Based on our usage of the above applications, the above applications do not have integrated chat service nor the ability to auto-correct the syntax errors. By adding the missing services gives us the competitive edge with our competitors.

## **Features:**

The following are the features that will be present in the application:

- Login and Signup page:

This will be the landing page of the application. User will be able to login or signup and after successful registration, he is moved to the application environment.

- Chat service between two users:

Ability to communicate with another user who is logged in. The purpose of this is to provide the user an option to discuss about the code.

- Compile and Run python code:

The IDE will allow user to type python code and check the output of the code.

- Report the syntax errors:

For an unsuccessful compilation, the compiler will report the errors to the user.

- Auto-correct syntactical errors:

The user will get a suggestion of the auto-corrected code. For Example, if there is any indentation error, the application will send a suggestion by correcting the indentation error.

- Find and replace option to edit the code: The user can replace specific parts of code which he/she wants to replace.
- Export the written code as a python file:

After typing the code, the user can export the written code as a python file.

## Risks:

Title	Risk level
Underestimating the need for proper security within the application.	High
Understanding code written by previous developer	Medium
Perform unit testing on the application	Medium
Estimate the time to develop the application completely	Low

## **Customers and Users:**

While developing the project, the following application can be used by developers and testers in order to craft the application.

This is an open-source application and the end user or the customer could be general audience who need the convenience of having a easily accessible compiler on their mobile.

## **Scope of the Project:**

Once all the goals set forth by us are achieved, more features like creating a semantic search by typing few lines of code, creating a debugger within the IDE.