PORTABLE MOBILE JAVA COMPILER

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Abstract

The project on portable mobile compiler helps students who want to learn Java, C, C++ and PHP without the inbuilt compiler. The application is mainly focused on Android application which works online. In current situation, ample of technology is increased mainly through the internet so the system will save time and installing entire Java development kit will be a time taking process so students can use this online application.

Index Terms — Java, Programming Languages, Android.

Introduction (online compiler)

The arrival of new smart phones are growing rapidly and is expected to have PC-like functionality, and CPU memory are still limited. In this internet world all the things are online. So we create software online compiler using cloud(1). The project is we can easily code program and debug it through online. Android’s features are useful to construct a server platform. The application can be developed without installing software in mobile device, accessing that software through the cloud server. In online compilers namely, the problem of portability is reduced and it is implemented by using Online Java compiler(2) and problem of time, cost, storage can also be reduced as well in addition with other features(3). The online java compiler using cloud computing, provides most convenient tool to compile c in the online storage space. By making the use of centralized Java compiler in cloud computing(4) the errors can be reduced or minimized. These Java compilers provide online services. There is no need of separate compiler, this reduces the burden of the developer where it can be done online(5). There is no specification to interact with the java compiler programmatically. The problem cannot be found the online java services

Existing System

Cloud Computing is the emerging area in the computer networks, this Cloud Computing Resource can be deliver only by using hardware(6). The cloud in mobile cannot be scale immediately to meet the demand. Since the memory is limited. The pc like hardware function is difficult to archive.

Disadvantages

Cloud usage in mobile application mostly cannot be used. To execute c, c++ in our computer, we need to have working installation of turbo c while executing the C program. We need have working installation of Turbo C. When we execute larger program in operating
system it will take significant amount of time and space to generate the output or result. Using mobile internet connection it is not easy to connect with remote network.

Proposed System
The system can be initiated using an android application. The implementation of SAAS can be done and used for the system without installing that software in the users device. This allows the developer to do Java, C, C++ and PHP Programming anywhere, anytime using just mobile interface. The information can be fetched from anywhere and it is not depend on the specific platform. Code can be created, compiled and executed by our system through online and it saves the memory. The user can use this system only by their individual login. In order to maintain the security in the cloud environment the login is provided. The speed is improved even though the system has a multi line coding.

Architecture Diagram

Module Specification
- Authentication
- Implementation Of SAAS in mobile application
- Working platform In Application
- Debugging Environment

Authentication
Authentication in the system is to promote the authorized user and discard the unauthorized one. This can be done by maintaining a secret Information unknown to the unauthorized user(6). Clint must be given an valid input to the user expectation on the server will start the service on our android device(7).

Implementation of Saas in Mobile Compiler
The implementation of SAAS in mobile application is done. saas is cloud resource and it’s used in mobile application. The execution of the coding can be done without installing the compiler. The result can also be gets through the mobile application. The user need not to pay each time while compiling the program by using this service in mobile application through cloud resource. Without installing the software we can compile and execute the program in our Android smart phone.
Working Platform
The application is focused on web application through online. Developer implements the source code and sends it to the online compiler, then the server can test the code where the compiler can be installed on server side and send result information to the client within a few seconds (8). Creating the SQL database and connecting to the server. An Android mobile client is an application that accesses service at the server. In which the client accesses the service through a network. Developers can run and execute the program directly in our Android smart phone.

Debugging Environment
The main tab defines the launching of class. The project launch contain the project field and the name of the main class. Check the stop main check box if the program needs to be stopped it can be done at the Debug mode. The source code and the variable need to be noted at the time of execution (9).

Conclusion
The project helps to compile and execute Java programs directly through the Android mobile so that they can concentrate on the programming concepts rather than learning operating system. This feature enables developers to do Java, C, C++, Android PHP programming anywhere, anytime using just mobile interface. Android system enables the usage of sharing the server side Android OS among multiple users.

Future Work
At present development is made using Java language in future it can be done with C, C++, Python using Android Application and other some languages. The code can be fetched from the online service provider so that it becomes user friendly.

References

8. N. Shyamambika, N. Thillaiarasu “A Survey on Acquiring Integrity of Shared Data with Effective user Termination in the Cloud” International Conference on Intelligent Systems and Control (ISCO16), DOI: 10.1109/ISCO.2016.7726893, IEEE Explore, 2016.
