Online Java Compiler Using Mobile Cloud Computing

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Abstract- The number of smart phone users and mobile applications are growing rapidly. Though smart phones are expected to have PC-like functionality, hardware resources such as CPUs, memory and batteries are still limited .To solve this resource problem, connect the phones to adjacent powerful cloud servers to throw their computational burden to the servers ,many researchers have proposed architectures to use server resources in the cloud for mobile Computing devices.

To solve this resource problem, many researchers have proposed architectures to use server resources in the cloud for mobile Computing devices. We propose a conceptual architecture of android as a server Platform, which enables user Android applications on cloud server via network.

Android is mainly designed for physical smart phone, Android's two other features are useful to construct a server platform. In our project we proposed a system that without installing software in mobile device accessing that software through cloud server. In our project we are using java software in server and accessing that software through the mobile device, improves the performance of our mobile cloud computing significantly in terms of execution time and energy consumption.

There are two key tasks involved before remote execution: code partitioning and state migration. And we are using software as a service. SAAS is a software delivery method that provides access to software and its functions remotely as a web-base service.

Keywords- Compiler, mobile computing, software as a service, cloud computing, web services

I. INTRODUCTION

Cloud computing is an internet based computing which is enables to provide convenient as well as on-demand network access. Cloud computing provided the SAAS platform. The number of smart phone users and mobile applications are growing rapidly. There are various mobile operating systems, such as android, windows etc. Developers construct many kinds of applications for these platforms and day to day they are increasing but smart phones are not providing pc like functionality because of their limitations like battery power, powerful processer, large size of memory[1]. To overcome these limitations we proposed a conceptual architecture of android as a server platform. It enables user to access the cloud services via network. In this paper, we propose system that without installing software in mobile device accessing that software through cloud server.

We can use android as a server platform. Android is an open source mobile OS and it enables many users to use resources on remote cloud server. Here we are using android as a server platform because android able to run not for smart phone but also for x86 platform.

II. PROBLEM STATEMENT

Cloud computing is the upcoming area in the real world. It provides the cloud services, but to utilize this cloud computing resources computer like hardware is required. Smart phone have less functionality than pc's, because hardware resources are limited. Cloud computing is not easy to manage through mobiles. Managing the cloud computing through mobile is not easy job till now. Using mobile internet connection it is not easy to connect with remote network. Cloud integrative mobile applications are not in use. Because of all this things user faces many problems regarding the cloud services. So our problem statement is that to implements Cloud Computing Architecture for Mobile Devices. Android User can utilize software as a service Process from the cloud server, without installing the software in the user Android mobile[3].

III. SYSTEM ARCHITECTURE

fig1. System Architecture

In this java compiler application, some works are performing first like login, creating Program and then saving, reset, updating error checking and executing. Here we are doing login first with user id and password. If user message that user id and password is wrong. When user id and password is correct then it will go to next page. After that user create a java program and then save it .Then there is procedure of compilation .In this compilation we compile the program on SAAS server if there is an error occur then it will give the error message to the user. Then we can update that program and after compiling process it will automatic generate class file on server. And last step is execution after doing compiling we can execute that file and it will show the output on user Android mobile. For doing this all process internet connection is necessary.
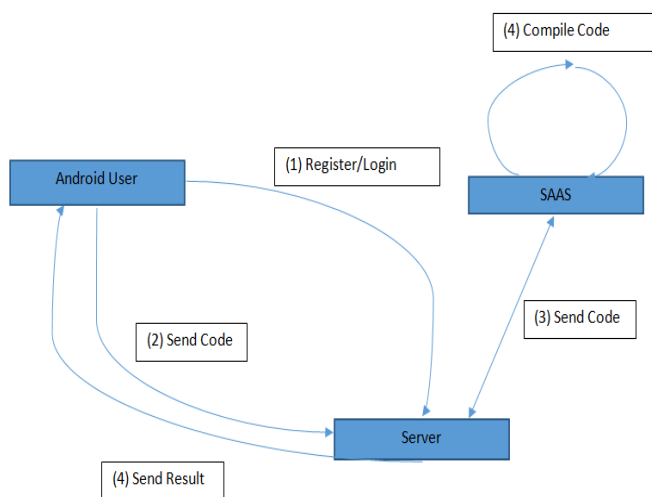
IV. IMPLEMENTATION

Fig.2.Data flow diagram

This diagram gives entire description of the system. As shown in the fig. android user firstly done the registration and if client have an login id and password then client able to login to the server. After getting access to server user can send the code to the server. Then user send this code to the SAAS. At this SAAS platform code compilation is carried out. This platform compile the code and this compiled code send back to the server. After this, the compiled code send back to the client.

A) Databases

For implementing the application or for the back end process of the application MYSQL as the DBMS is used. The application is based on Data mining concept. Dataset required for implementation is from student information dataset about academic. For creating the database or dataset MYSQL is installed. SQL is a special-purpose programming language designed for managing data held in a relational database management system (RDBMS).

B) Important module and algorithms

The technology used for designing and implementation of this project is java as a coding language. We use the ID3 algorithm. The implementation of these algorithm is used to a classify the objects. Like a classification, it contains datasets that can be accessed using data mining concepts.

The ID3 algorithm is to take decision based on classification of datasets .Here we also have used Decision tree technique of data mining for taking decisions.

For the GUI designing uses the swing class. For designing frames used jLabel, jTextFeildInputFile, jButtonBrows, jScrolPane, jButton object are used. Swing library is an official Java GUI toolkit released by Sun Microsystems. It is used to create Graphical user interfaces with Java. The Swing API has 18 public packages. Swing is an advanced GUI toolkit. It has a rich set of widgets. From basic widgets like buttons, labels, scrollbars to advanced widgets like trees and tables. Swing itself is written in Java.

V. FUTURE SCOPE

This system can be make more flexible if it direct access or compile the java code without the internet, if the facility of our proposal inbuilt with android phones or other devices.

VI. CONCLUSION

The project aims at creating & compiling Java code in the cloud. As compared to the current scenario where each machine need to install compilers separately. This would eliminate the need to install compilers separately. So we can check our code at the server. Advantage of this project is that whenever the compiler package is to be upgraded it can be done easily without again installing it on each and every machine.

VII. ACKNOWLEDGMENT

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