Code to Cloud-The Efficient Way to Code Using Cloud Computing

S. Divya¹, P. V. Minisha¹, R. Venkatesh²

¹Department of Information technology, SKP Engineering College, Tiruvannamalai, Tamil Nadu, India
²Assistant Professor, Department of Information Technology, SKP Engineering college, Tiruvannamalai, Tamil Nadu, India

ABSTRACT

The main idea of this project is to help students who want to learn java, C, C++ and PHP programming language without installing compiler in his system. This application works on Android which works online . Students need to write java code and pass it to online java compiler and press run button, system will send information to server where compiler is installed and it will test the code at server side and send result information to client within few seconds. This application will save time. 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-based service.

Keywords: SAAS, Cloud Computing, Android

I. INTRODUCTION

The main objective of the project is to develop a Cloud Computing. We are implementing Software as a Service (SAAS) for Cloud Computing. Develop Android based application for students. Smart phones are expected to have PC-like functionality hardware resources such as CPUs, memory and batteries are still limited. To solve this problem, many researchers have proposed architectures to use server resources in the cloud for mobile devices. We propose a conceptual architecture of Android as a Server Platform, which enables multiple Android application on cloud server via network. Though Android is mainly designed for physical smart phone. In this paper we elaborate on the idea of computation offloading and present a practical system, called Cuckoo that can be used to easily write and efficiently run applications that can offload computation. Cuckoo is targeted at the Android platform, since Android provides an application model that fits well for computation offloading.

II. METHODS AND MATERIAL

A. EXISTING SYSTEM:

Cloud Computing is the upcoming area in the real Networks, but to utilize this Cloud Computing Resource Computer like Hardware is required to Managing the Cloud Computing through Mobile is not an easy job till now.

Cloud integrative Mobile Applications are not in Use. Smart phones are expected to have PC-like functionality, Hardware resources such as CPUs, Memory and Batteries are still limited.

B.PROPOSED SYSTEM:

Cloud Computing Application can be initiated using Android Smart Phones. We are implementing Software as a Service (SAAS) for Cloud Computing. SAAS is the Cloud Computing Resource, used for the service of without installing that Software in the Device. Here, we are compiling the code using Android Smart phones without installing Software in Mobile Phone. Android can utilize software as a service (SAAS) Process from the cloud server, without installing the software in the Android mobile. This features allows students to do Java, C, C++and programming anywhere, anytime using just mobile interface.
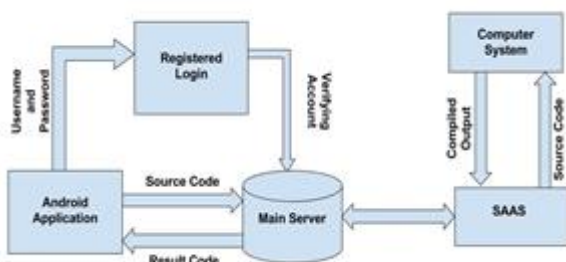
C.SYSTEM DESIGN

Figure 1. System Architecture

A system architecture is the conceptual model that defines the structure, behavior and more views of the system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structure of the system which comprises system components, the externally visible properties of those components, the relationships (e.g. the behavior) between them and provides a plan from which products can be procured, and system developed, that will work together to implement the overall system.

D.MODULE DESCRIPTION:

1. MOBILE CLIENT

An Android mobile client is an application that access a service made available by a server. The server is often (but not always) on another computer, in which case the client accesses the service by way of a network. The term was first applied to devices that were not capable of running their own stand-alone programs, but could interact with remote computers via a network.
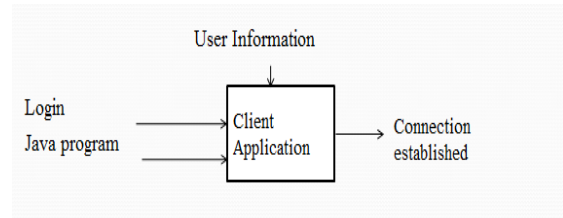

Figure 2

2. CLOUD SERVER

Cloud Computing, as the name suggests is a style of computing where dynamically scalable and often visualized resources are provided as a service over the internet. These services can be consumed by any over a standard HTTP medium. It does not need to have the knowledge, expertise or control over the technology infrastructure in the "cloud" that supports them. Cloud Servers offer increased flexibility and higher quality than dedicated server solutions. Cloud servers are highly available. A cloud server is considered to be logical when it is delivered through server virtualization. Servers are highly available. A cloud server is considered to be logical when it is delivered through server virtualization.
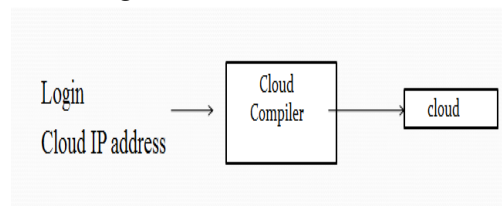

Figure 3

3. SAAS

The SAAS implementation is achieved using Java, C, C++ and software. The traditional model of software is purchased and installed on personal computers, is sometimes referred as software as a product .We all understand that without these four software we cannot compile our program. The Software as a Service (SAAS) is that the software are uploaded in the cloud server, whenever the client request the software to the cloud server, the cloud server will provide the software, which is chargeable in rental

manner. This process will be of use to reduce the client system load. The Service Level Agreement is an important agreement document because it clearly defines what a (SaaS) service provider is offering and also what consequences they will face if they fail to deliver these services, to the agreed standard.
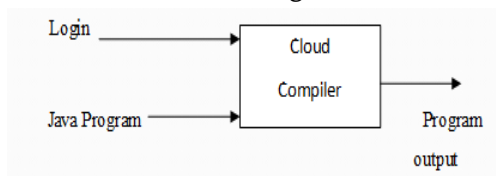

Figure 4

E.COMPONENT DESIGN
AUTHENTICATION

✓ Client side validation on android device
✓ Server IP address validated at client
✓ Server URL is validated to establish connection
✓ If invalid input of user exception message display
✓ Server side user validation to start service

IMPLEMENTATION OF SOFTWARE AS A SERVICE

We are implementing Software as a Service (SaaS) for Cloud Computing. SAAS is the Cloud Computing Resource, used for the service of Software without installing that Software in the Device.

✓ Client provide the IP address of cloud service
✓ Establish connection
✓ Map the corresponding servlet application
✓ Client stores his java program on server
✓ Enable java compiler service to client.

III. RESULTS AND DISCUSSION

WORKING ENVIRONMENT IN APPLICATION

Cloud computing gives you access to an environment that you can customize or build out to suit your needs.

✓ Create and connect to the SQL lite data base
✓ Connect to server by valid IP address of server
✓ Access a service made available by a server
✓ Client accesses the service by way of a network.

DEBUGGING ENVIRONMENT

This environment check, the stop main checkers if you want the program to stop in the main method whenever the program launched in debug mode.

✓ Watch the source code and the variables during this execution
✓ Use breakpoints to stop execution of the program
✓ Use watch point to start the execution of the program
✓ Compile the user program
✓ Generate class file
✓ Run program by executing class file.

IV. CONCLUSION

In this project we conclude with the proposal which is used to provide such types of application which can execute the java program on mobile using cloud server, earlier picture demonstrate the system architecture of working style of defined compiler. Load Balancing is the used for balancing the all element of compiler on cloud server. Here following research is mainly focuses on 3 parameters for better utilization of resources which leads to efficient performance. The factors are load on server nodes , performance factor and future load factor which calculates the future load on nodes with help of predictive analysis method by Newton's divided difference formula.

V. FUTURE ENHANCEMENT

Online Java Compiler Using cloud computing has allots of advantages and our proposal provide effective, efficient and simple technology for java program execution on the android mobile. This can be 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. REFERENCES

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