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Online Java Compiler With Secure Editor

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ABSTRACT

As it is a competitive world and very fast world, everything in the universes is to be internet. In this internet world all the things are on-line. So we created software called "On-line java compiler with security editor". The main aim of this project we can easily to write a java program and compile it and debug in on-line. The client machine doesn't having java development kit .The client machine only connected to the server. The server having java compiler .so server executes the java code and produce the error message to the appropriate client machine. In this project is also creating a security editor. This editor performs Encrypt and decrypts the file. Encryption and decryption process perform using RSA Algorithms. There is lot of security algorithms are there, but RSA algorithm is very efficient to encrypt and decrypt the file. In this project is used to view all type of java API .It is very useful for writing the java program easily, for example if any error in the format of API means we can able to view API throw this modules.

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I. INTRODUCTION

Cloud computing builds on decades of research in virtualization, distributed computing, utility computing, and more recently networking, web and software services. Cloud Computing describes a new supplement, consumption and delivery model for IT services based on Internet protocols and it typically involves provisioning of dynamically scalable and often virtualized resources. It is a by-product and consequence of the ease-of-access to remote computing sites provided by the Internet according to their own needs. It implies a service oriented architecture, reduced information technology overhead for the end-user, great flexibility, reduced total cost of ownership and on demand services among other advantages. The National Institute of Standards and Technology (NIST) defines „Cloud Computing" as „a model for enabling easy, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. "It does not require the end-user to know the physical location and configuration of the system that provides the services to the end-user. The main disadvantage of Cloud computing is the loss of control over the infrastructure used by the users. However, this disadvantage is eclipsed by many an advantages that cloud computing offers. Some of them are lower costs, better computing, location in dependence, better security. This project is developed for compiling the java programs on-line. The Online-Compiler for Java with Security Editor is a web based application that can be accessed throughout the world.

Scope

This system can be used for compiling java programs on-line, also save that file on the web, we can access the java API classes and we can also perform encryption and decryption operations.

Overview

Here user sign up into the application, once he is registered then he can directly log into the application with proper user id and password.

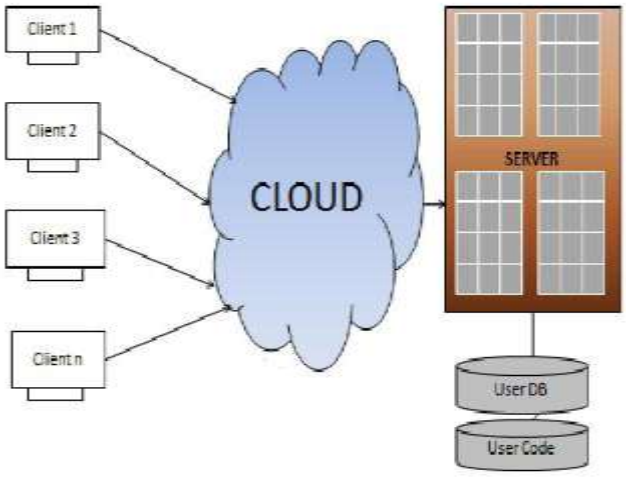

Fig.1.Architecture of cloud computing

II. EXISTING SYSTEM

The existing system is the manual system. The manual system is prone to error. It is time consuming. It is very difficult for a person to produce the report. There are chances for changing the scheme report and do malpractice. This system involves a lot of manual entries with the applications to perform the desired task.

Limitations in Existing System

- Information retrieval is a very big process.
- Lack of organization of the files may rise to information loss due to accidental deletion of files.
- No security because the files are visible to the users.
- Report generation will be a big task.

III. PROPOSED SYSTEM

The proposed system is designed to eliminate the problems in the existing system. The main aim of this project we can easily to write a java program and compile it and debug in on-line. The client machine doesn't having java development kit .The client machine only connected to the server. The server having java compiler .so server executes the java code and produce the error message to the appropriate client machine.

Advantages over Existing System

- We can compile and run our java program online.
- On-line access is provided for the saved files
- No need to install jdk in our own system

Modules:

1. Java File creation:

In this module we can create a java file and save it in our local file system. Any client can create a java file using this web page. The client can create as many java files and save it. The web page also used as an editor for the clients to create java files. Using this client can easily create a java file. It is also user friendly for the clients.

2. Java File Compilation:

In this module, we can compile any java application that we are creating. The client machine is not required to have the JDK installed on their machines. The client can use this web application and he can compile the java file. The client machines java application is compiled with the help of the JDK installed in the server machine. The JDK installed in the server machine does the compilation for all the java programs available in the server machines.

3. Java API Information

In this module, we can know the information of all the API (Application programming Interface) available in java. Using this module we can know all the methods that are available in a class or an interface. The application programming interface is a collection of classes and interfaces available in a package.
It is not possible for a programmer to remember all the methods available in a class or an interface available in a package so at that time the programmer can make use of these JAVA API

4. Encryption

In this module, we are doing encryption using RSA Algorithm. We are encrypting the file with the help of RSA Algorithm. For encrypting a file, we need to get two prime number from the user. With the help of these prime numbers we are encrypting the file. Now the actual text of the file is converted to a cipher text. So it will not be visible for the user. It will not be in the known format.

5. Decryption

In this module, we are doing decryption using RSA Algorithm. We are decrypting the file with the help of RSA Algorithm. For decrypting a file, we need to decrypt it by giving the private keys. With the help of these private keys we are decrypting the file. Now the cipher text of the file is converted to the actual text. So it will visible for the user. It will be in known formats.

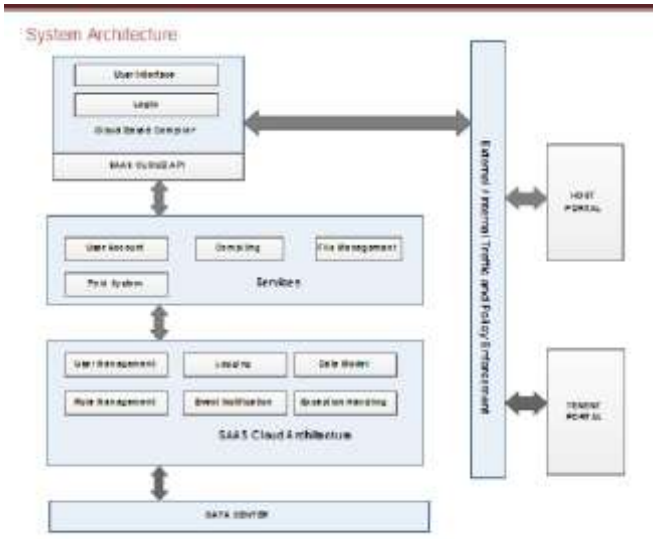

Fig 2. System architecture

IV. CONCLUSION

We have to conclude in this paper, this technology is applied to generate online java compiler using Cloud Computing with security editor. 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 centralized server. Another advantage of such 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.

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