

Client End Processing in Web Server using AWS

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Abstract: Client-processing is majorly required to control the heavy load of data by focusing on processing at the client end in an application of server-client architecture. This application is about the client taking tests to measure one's caliber to program in a programming language. Here the user gets to write a program as a response to the given question in the java application. The program is tested against test cases recorded for each question in the database. The key to this application is that the compilation and execution of the program is done on the client machine. For this to happen, the list compiler checks are made to make sure the client has required set of compilers. The test cases are extracted from the database and run against the client's program. The result that how many test cases the program has passed is shown. Once a program for a question passes all the necessary test cases, then the question is marked answered in the database. This way, the heavy load of both compilation and execution of the server is shifted to the client's end.

I. INTRODUCTION

Client and Server Side are terms of Web development in which the application code runs. Client-Server is in web development as the terms that are used to communicate through network with centrally localized server to get the desired data rather than communicating with end users. End users are the one that are clients of servers and use services of company. The end data and reducing workload or traffic in network. devices send request to server for web-pages or applications and server serves their responses. Server Side is used because typically server is more powerful and reliable than end or client side. Its constantly maintained and controlled by environment to make it available. End users are not powerful like server side but work independently so workload will be less. The use of end to end quality of services (eQoS) use packets and routers for transferring. Client- end or end user processing is majorly required to control the heavy load of data by focusing on processing at the client end in an application of serverclient architecture. This application is about the client taking tests to measure one's caliber to program in a programming language. Here the user gets to write a program as a response to the given question in the java application. The program is tested against test cases recorded for each question in the database. The key to this application is that the compilation and execution of the

program is done on the client machine. For this to happen, the list compiler checks are made to make sure the client has required set of compilers.

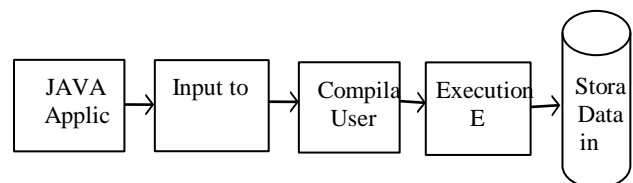
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II. SYSTEM ARCHITECTURE

The basic architecture of the paper is illustrated by the flow chart given which explains that how the process goes. The process starts with creating a java test application using JAVA programming. Java is a general-purpose computer-programming language that is concurrent, classbased, object-oriented, and specifically designed to have few implementation dependencies possible.

It is intended to let application developers "write once, run anywhere" (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to "bytecode" that can run on any JVM regardless of the underlying computer architecture.

The test application created then input to be given for test cases for further process. For input given to test cases MySQL database is used to store the input data by user. MySQL is an open source relational database management system (RDBMS). MySQL is written in C and C++. It uses a homebrewed lexical analyzer. MySQL works on many system platforms like Microsoft Windows, Oracle, macOS and many more. It is basically to store data at backend in creating databases.



The storage of data helps user get information about a particular easily. Normally all execution and compilation are done at server end but in this paper after storage compilation is done at user end and then execution at server end converting the process from Server to Client side using AWS

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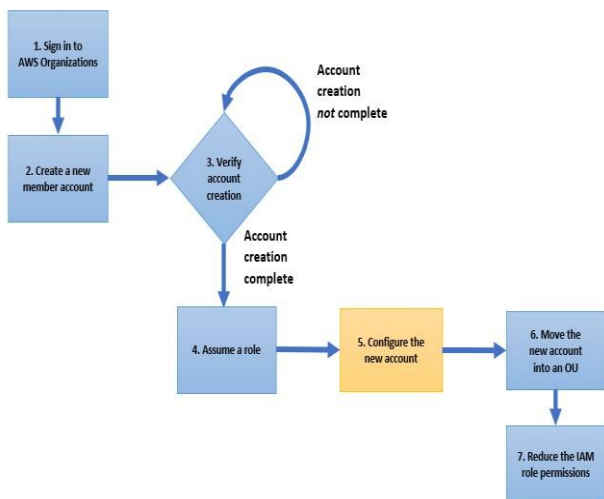
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(Amazon Web Services). Amazon Web Services (AWS) is a subsidiary of Amazon that provides ondemand cloud computing platforms to individuals.

Cloud computing web services provide a set of primitive, abstract technical infrastructure and distributed computing building blocks and tools. One of these services is Amazon Elastic Compute Cloud, which allows users to have at their disposal a virtual cluster of computers, available all the time, through the Internet. The process to create account in AWS is explained by above flowchart for processing and linking the database through MySQL. Here, after creating and configuring the account it is transferred to Organisational Units and then finally according to the role selected Identity And Management is decided according to role selected and conditions to the same. The role in account creation and configuration means the field user has chosen for database storage and creation. The basic process is to create and configure then user is all set to store datas in database and process the data transfer accordingly.



III. EXISTING SYSTEM

In the existing system of the project end to end Quality of Services(eQoS) are used in the server-client architecture which slows down the internet speed of the user as the QoS is enabled directly on the router of the user. Bandwidth and the traffic going from the LAN to the internet is usually very less than the bandwidth and the traffic coming to the LAN and the QoS cannot help it.

The existing system also uses Adaptive Fuzzy Controller, STFC (Self Tuning Fuzzy Controller) for processing the data entered in the database. In the existing system the prototype is made only for Linux as it satisfies all the conditions of L9linux alone in the given server-client architecture for processing.

IV. PROPOSED SYSTEM

The proposed system is the application that mainly focuses on processing at the client end of the server-client architecture in the java application. The compilation and execution of the program is done at the client end of the system during the processing. The program that passes all the test cases is stored in the database for further reference. A database and AWS are used to manage the processing in

between the client and server by creating a relational database using AWS. The database is setup and modified according to the requirements of the processor to store the values

V. CONCLUSION

As proposed earlier, this application would definitely be beneficial for many other users or programmers. They can easily convert network from server to client end using this web application. Client end will work independently and fastly. The paper basically will help user to reduce traffic and transfer data easily without any congestion the way. As this application spreads worldwide, it would help many other user. Reducing the traffic in network during data transfer or accessing. The data accessing and transfer will be done independently instantly without taking time. The paper is beneficial in future to reduce congestion in the path of transferring data from one end to another in user end instead of server end. Using user end for transferring helps transfer data individually like stand alone in which there is no occurrence of traffic because all computers would be connected individually instead of one central station.

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