

PRODUCT DEVELOPMENT LAB-II

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Title of the Product: ELASTIC CLOUD SERVICES

Type of Product: Software

Abstract:

This project is concerned with load balancing and failover support system for deployed applications on cloud servers.

Generally, when a client requests for an application to be run on a cloud server it mainly requires the following two things :

- Database Server
- Application Server

All the records and data of a client are stored in a database instance which is to be made reliable based on client's priorities. So, as per client's request this software provides the option for a shared database or a dedicated database. In a shared database, multiple clients can create instances of their respective database schemas in the same server whereas for a dedicated database, the complete server is allocated to single client.

Similarly, client can opt for shared or dedicated application server. In shared application server the same WAR file is deployed multiple times for multiple users; whereas in a dedicated application server a single WAR file is deployed on a particular machine.

To make the system more reliable and fail proof, an additional copy of every WAR and SQL files are deployed on several backup machines. In case of failover, the client requests are redirected to the secondary servers based on their availabilities.

Suppose, an application receives very high traffic and there is a risk of system failure. In this situation, this software will check for the status of each available machine (Load balancing) and will assign the excessive requests to the best possible secondary machines.

Required softwares:

- Apache Server
- Database server
- JAVA
- SOAP UI

Output:

It provides an admin controlled graphical user interface to on-board applications and users based on their preferences for the database and application servers. It also facilitates customer login and provides the access to their applications.

Application Areas:

This software will be highly useful in areas having heavy traffic congestion for cloud request-response cycle. Also any discussion involving data must address security and privacy, especially when it comes to managing sensitive data which is properly taken care of according to the client's demand.

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