Human Resource Management A Java Project

Sudharani Pudi
Student (M.Tech), CSC,
Gokul Group Of Institutions
Visakhapatnam, India.

S.Ravi Kumar
Asst. Prof, CSC,
Gokul Group Of Institutions
Visakhapatnam, India.

ABSTRACT:

Human Resource Management System is aimed to integrate the activities of Human Resource Department of Hindustan Software Limited (HSL). The Human Resource Management System maintains the following core activities and core processes of HSL. The information collected through the above activities will be maintained in a centralized server and could be accessed through the Internet.

The company has decided to create a corporate intra network to connect all offices and their network would also be utilized in case of implementation. The information collected through this management and process related activities are maintained as folios.

Keywords:

buck boost converter, svm

I INTRODUCTION:

System analysis is a process of gathering interpreting facts, diagnosing problems, and using facts to improve the system. The objective of the system analysis is to understand the important facts of current system by studying it in detail. To accomplish this objective the following have to be done. Learn the details of the system as well as procedures currently in practice. Develop insight into future demands of the organization on its growth; hike in Competition, evolving new financial structures, introduction of new technology, and changes in the customer needs.

Documentation details of the current system for discussion and review by others. Evaluate effectiveness and efficiency of the current system and procedure taking into account the impact of anticipating future demands. Recommend any revisions and enhancements to the current system, indicating how they are justified. If appropriate, an entire new system may be purposed. Document the new system features at a level of details that allows others to understand its components and manage the new system developed.

1.1 SYSTEM DESIGN:

The design of a system produces the details that state how a system meet the requirements identified during system analysis. System specialists often refer to this stage as logical design, in contrast to the process of developing program software, which is referred to as physical design.

Data Flow Diagrams have been used in the design of the system. Data Flow Diagram is a graphical tool used to describe and analyze the movement of data. The transformation of data from input to output, through processes may be described logically using these Data Flow Diagrams.

The DFD shown to the user must represent only the major functions being performed by the system. This is called Top Level DFD. If this process is complex enough, it can be broken further into different levels. This process can be continued till the process is simple. This is called the leveling of DFD's.

1.2 SYSTEM TESTING:

Theoretically, a new designed system should have all the pieces in working order, but in reality, each piece works independently. Now is the time to put all pieces into one system and test it to determine whether it meets the user's requirements. The purpose of the system is to consider all the likely variations to which it will be subjected and then push the system to its limits. It is tedious but necessary step in system development. One needs to be familiar with the following basic terms.

1.3 UNIT TESTING:

Unit Testing is testing changes made in an existing or a new program.

1.4 SEQUENTIAL OR SERIES TESTING:

Sequential or Series Testing is checking the logic of one or more programs in the candidate system, where the output of one program will affect the processing done by another program.

1.5 Unit Testing:

This focuses on the smallest unit of software design. The module using the details design description as a guide; important control paths are tested to uncover errors within the boundary of the module.

II SOFTWARE ARCHITECTURE:

The following diagram illustrates the links between various components involved in this system.

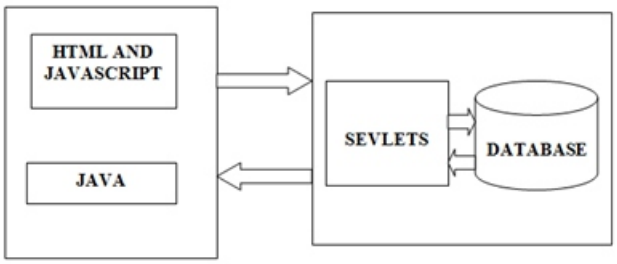


Fig 1 software architecture

Java is also unusual in that each Java program is both compiled and interpreted. With a compile, you translate a Java program into an intermediate language called Java bytecodes the platform-independent code instruction is passed and run on the computer.

Compilation happens just once; interpretation occurs each time the program is executed. The figure illustrates how this works.

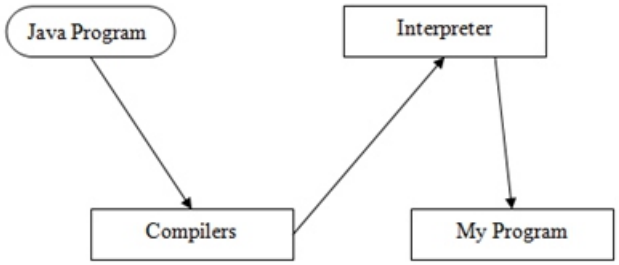


Fig 2 software working

You can think of Java byte codes as the machine code instructions for the Java Virtual Machine (Java VM). Every Java interpreter, whether it's a Java development tool or a Web browser that can run Java applets, is an implementation of the Java VM. The Java VM can also be implemented in hardware.

Java byte codes help make "write once, run anywhere" possible. You can compile your Java program into byte codes on my platform that has a Java compiler. The byte codes can then be run any implementation of the Java VM. For example, the same Java program can run Windows NT, Solaris, and Macintosh.

2.1 JAVA PLATFORM:

A platform is the hardware of software environment in which a program runs. The Java platform differs from most other platforms in that it's a software only platform that runs on the top of other, hardware-based platform. Most other platforms are described as a combination of hardware and operating system.

III SERVLETS OVERVIEW:

Servlets extend the request-response-oriented servers, such as Java-enabled Web servers. For example, a Servlet can retrieve data from an HTML form and applying the business logic used to update Product database.

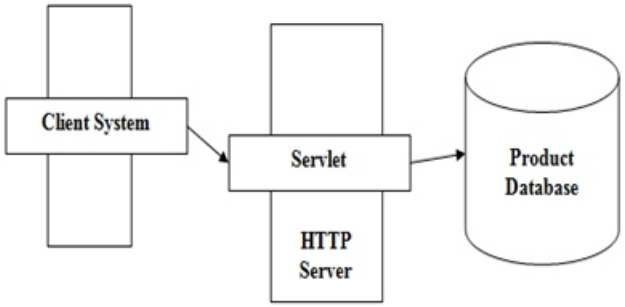


Fig 3 HTTP SERVER

The Servlet API assumes nothing about the server's environment or protocol. Therefore, Servlet can be embedded in many different servers.

3.1 Web Servers:

A Web server receives the request it then springs into action. Depending on the type of request, the web-server might look for a web page or it might execute program on the server, usually, as discussed earlier, CGI script or an advanced server-side program.

3.2 The Servlet API:

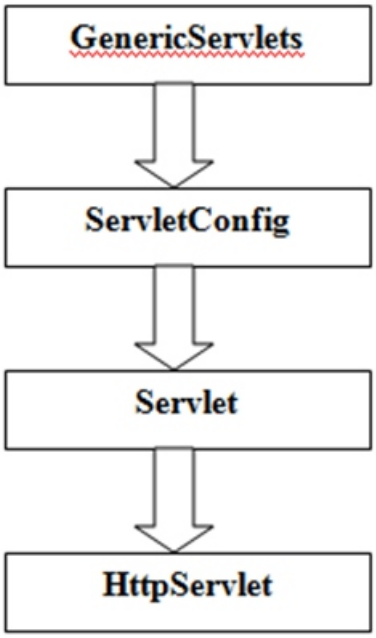
The two packages contains the code to build the Servlets: javax.servlet and javax.servlet.http.

3.3 The javax.servlet package:

The javax.servlet package contains a number of interfaces and classes that establish the framework in which Servlets operate. The ServletRequest and ServletResponse are also very important. The ServletRequest interface is used to read data from a client request. The ServletResponse interface is used to write data to a client response.

3.4 The Servlet Interface:

All Servlets must implement the Servlet interface. Generic Servlet must implements the Servlet and Servletconfig interface. HttpServlet extends GenericServlet. It is commonly used to Servlets that receives and process HTTP requests.



3.5 The ServletRequest Interface:

The server implements the ServletRequest interface. It enables to obtain about a client request:

The parameter of the names passed by the client, and the names of the remote host that made the request. Servlets use to get data from clients that use application protocols such as the HTTP POST and PUT methods in an InputStream such as ServletInputStream. The HttpServletRequest interface contains methods for accessing HTTP-specific header information.

3.6 The ServletResponse Interface:

The ServletResponse interface is implemented by the server. It enables to obtain about a client response:

It allows the Servlet to set the content length. Servlet can send the reply data which writer through n output stream such as ServletOutputStream. The HttpResponse interface contains allow the Servlet to manipulate HTTP-specific header information.

3.7 Hypertext Transfer Protocol (HTTP):

The Hypertext Transfer Protocol (HTTP) is used an application-level protocol for distributed, collaborative, hypermedia information systems. A feature of HTTP is the typing and negotiation of data representation, allowing systems to be built independently of the data being transferred. The HTTP protocol is a request/response protocol.

3.8 The javax.servlet.http Package:

The javax.servlet.http package contains several interfaces and classes that are commonly used by Servlet developers.

IV JAVA DATABASE CONNECTIVITY (JDBC):

Most popular and widely accepted database connectivity called Open Database Connectivity (ODBC) is used to access the relational databases. It offers the ability to connect to almost all the databases on almost all platforms. Java applications can also use this ODBC to communicate with a database. Then we need JDBC why? There are several reasons:

4.1 Architecture of JDBC:

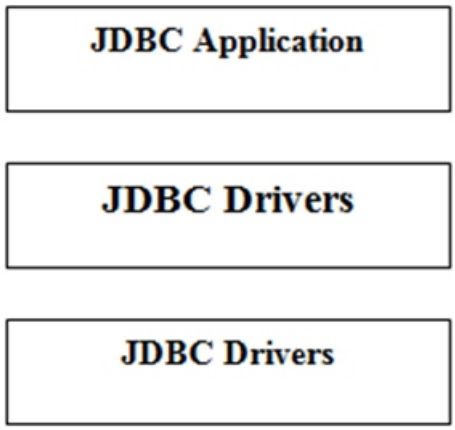


FIG 6 JDBC Architecture contains three layers

Application Layer: Java program wants to get a connection to a database. It needs the information from the database to display on the screen or to modify the existing data or to insert the data into the table.Driver Manager: The layer is the backbone of the JDBC architecture. When it receives a connection-request form.

The JDBC Application Layer: It tries to find the appropriate driver by iterating through all the available drivers, which are currently registered with Device Manager. After finding out the right driver, it connects the application to appropriate database.JDBC Driver layers: This layer accepts the SQL calls from the application and converts them into native calls to the database and vice-versa.

A JDBC Driver is responsible for ensuring that an application has consistent and uniform m access to any database.

When a request received by the application, the JDBC driver passes the request to the ODBC driver, the ODBC driver communicates with the database, sends the request, and gets the results.

The results will be passed to the JDBC driver and in turn to the application. So, the JDBC driver has no knowledge about the actual database, it knows how to pass the application request o the ODBC and get the results from the ODBC.

V Conclusion:

This HRMS Project Should satisfy all the needs of the Human Resource Manager. The Administration work mainly on Interviews conducted by the consultant.

And the project module give the information about the project details from the client and service and updating may be done for client's satisfaction.

VI References:

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