



Created By : Ankit Sharma

# I.Introduction

## ➤ Project Summary

**Project Title** : JSPMyAdmin  
**Name of Members** : Ankit Sharma (05CE055)  
**Tools Used** : JDK1.6.0\_07  
MyEclipse 5.1.1GA  
Apache Tomcat 6

## **System Requirement :**

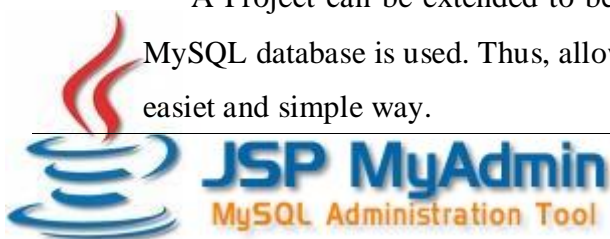
- ✓ Memory : 128 MB or Higher
- ✓ Processor : 1.6 GHz or Higher
- ✓ Graphics Card: DirectX 8.0 compatible Card
- ✓ 640x480 or Higher Resolution
- ✓ Component Requirement : .JVM, MySQL 4.0 or Higher
- ✓ Operating System : Windows 2000/XP/VISTA

## ➤ Purpose: Goals and Objectives

MySQL database Management System used to store data. It is used in many webserver as well in many big organisation. But MySQL doesn't have any GUI, it has to be handled through Command Prompt. Hence it is tedious for the users who either don't know how to use SQL query and who love to work on GUI interface. Hence JSPMyAdmin works as a GUI for MySQL Database, through which you can control almost every MySQL functionality. This will define a new era in the way system interacts with user and the way it solves the problems.

## ➤ Scope

A Project can be extended to be used in Web Servers, and anywhere else where MySQL database is used. Thus, allowing JSPMyAdmin to manipulate the Database in an easier and simple way.



## 2. System Requirements Study

### ➤ User Characteristics

User wants highly portable and totally new interface as well as it assumes certain expectations from the system. A burden should be reduced in sense of learning MySQL, and executing specific task with great precision allowing user to consider on other task. User also wants highly sophisticated devices beyond the conventional 4<sup>th</sup> generation one.

### ➤ Hardware and Software Requirements

- ✓ Memory : 128 MB or Higher
- ✓ Processor : 1.6 GHz or Higher
- ✓ Graphics Card: DirectX 8.0 compatible Card
- ✓ 640x480 or Higher Resolution
  
- ✓ Software Requirement : .MySQL 3.2, JVM, Apache Tomcat and WebBrowser
- ✓ Operating System : Windows 2000/XP/VISTA

### ➤ System Recommendation

- ✓ Memory : 512 MB or Higher
- ✓ Processor : Core 2 Duo 1.6 or Higher
- ✓ 1024x768 or Higher Resolution
  
- ✓ MySQL 4.1 or Higher
- ✓ FireFox 3.1 or Higher
- ✓ JVM 1.6 or Higher
- ✓ Apache Tomcat 6 or Higher

## 2.1 Technology & Literature Review

### ➤ JAVA

Java was conceived by James Gosling, Patrick Naughton, Chris Warth, Ed Frank, and Mike Sheridan at Sun Microsystems, Inc. in 1991. It took 18 months to develop the first working version. This language was initially called “Oak” but was renamed “Java” in 1995. Between the initial implementation of Oak in the fall of 1992 and the public announcement of Java in the spring of 1995, many more people contributed to the design and evolution of the language. Bill Joy, Arthur van Hoff, Jonathan Payne, Frank Yellin, and Tim Lindholm were key contributors to the maturing of the original prototype.

The key considerations were summed up by the Java team in the following list of buzzwords:

- Simple
- Secure
- Portable
- Object-oriented
- Robust
- Multithreaded
- Architecture-neutral
- Interpreted
- High performance
- Distributed
- Dynamic

## ➤ JSP

The Java 2 Enterprise Edition (J2EE) has taken the once-chaotic task of building an Internetpresence and transformed it to the point where developers can use Java to efficiently create multitier, server-side applications. Today, the Java Enterprise APIs have expanded to encompass a number of areas: RMI and CORBA for remote object handling, JDBC for database interaction, JNDI for accessing naming and directory services, Enterprise JavaBeans for creating reusable business components, JMS (Java Messaging Service) for messageoriented middleware, JAXP for XML processing, and JTA (Java Transaction API) for performing atomic transactions. In addition, J2EE also supports servlets, an extremely popular Java substitute for CGI scripts. The combination of these technologies allows programmers to create distributed business solutions for a variety of tasks.

In late 1999, Sun Microsystems added a new element to the collection of Enterprise Java tools: JavaServer Pages (JSP). JavaServer Pages are built on top of Java servlets and are designed to increase the efficiency in which programmers, and even nonprogrammers, can create web content.

## ➤ Why use JSP?

In the early days of the Web, the Common Gateway Interface (CGI) was the only tool for developing dynamic web content. However, CGI is not an efficient solution. For every request that comes in, the web server has to create a new operating-system process, load an interpreter and a script, execute the script, and then tear it all down again. This is very taxing for the server and doesn't scale well when the amount of traffic increases.

Numerous CGI alternatives and enhancements, such as FastCGI, mod\_perl from Apache, NSAPI from Netscape, ISAPI from Microsoft, and Java servlets from Sun Microsystems, have been created over the years. While these solutions offer better performance and scalability, all these technologies suffer from a common problem: they generate web pages by embedding HTML directly in programming language code. This pushes the creation of dynamic web pages exclusively into the realm of programmers. JavaServer Pages, however, changes all that.

# I. Implementation Planning & Detail

Planning is never been an easy task. As I have started designing this project, In first two weeks I have developed a a sound knowledge on MySQL Database which covers software issue on paper from scratch. I have also reinforced this design keeping in mind lots of issues. From third week I have started coding and it took almost three weeks to complete. I have solved lots of issues which may expose a possible threat at run time. From, fifth week I have started to test a working model with many testing planes and with different users having different behavior. In the first half of the sixth week I have got a robust system which can withstand good amount of vulnerabilities. As no system is perfect, there are always good chances to consolidate this system and I'll make sure that I'm not letting any of this chance to just pass away.

## 2. System Analysis

### ➤ Study of Current System

Current systems are based on MySQL 4.1 which performs the daily used commands. Thus a system is no more powerful than its programmer.

### ➤ Problem and Weakness of Current System

Currently System is facing problem with Limited functionalities such as no search option, other column constraints, report generation etc.

### ➤ Requirements of New System

User wants the highly sophisticated systems which are having proper consistency and improvement of the system.

### ➤ Feasibility Study

#### ➤ *Operational feasibility*

- ✓ Developed system will provide adequate throughput and all necessary information to end-users.
- ✓ It will provide new and reliable way of using MySQL Database.
- ✓ It will be easily operated by even a native user as it will be a self-explaining system.

#### ➤ *Technical feasibility*

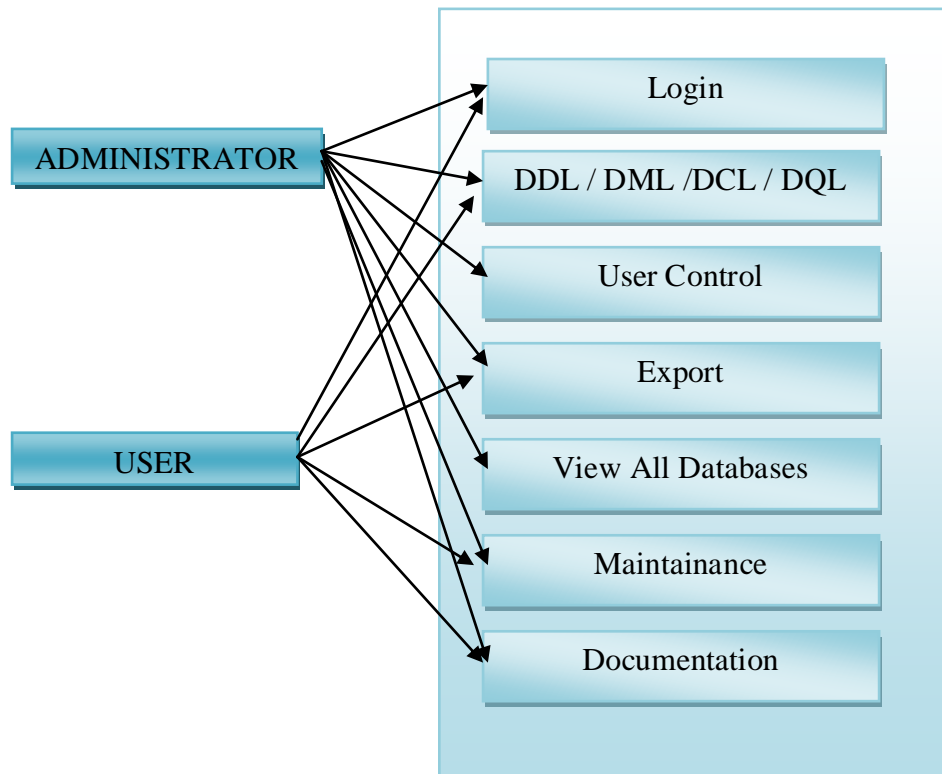
- ✓ As it is technically tough task, will require good amount of technical resources.\

#### ➤ *Economical feasibility*

- ✓ It requires high amount of learning to implement complete GUI functionalities but it will be highly cost-effective as if every single task can be performed through JSPMyAdmin.

### 3. Function of System

➤ Use case Diagram

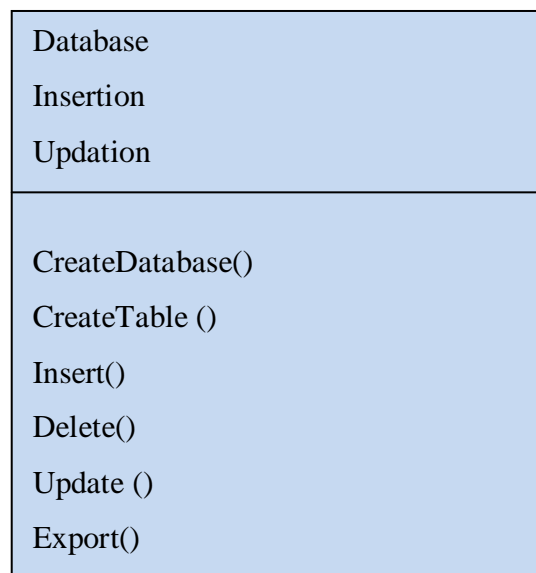
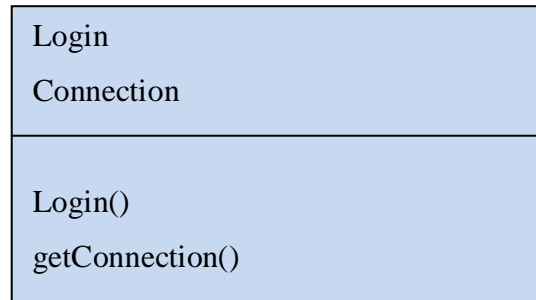




## 4. Data Modeling

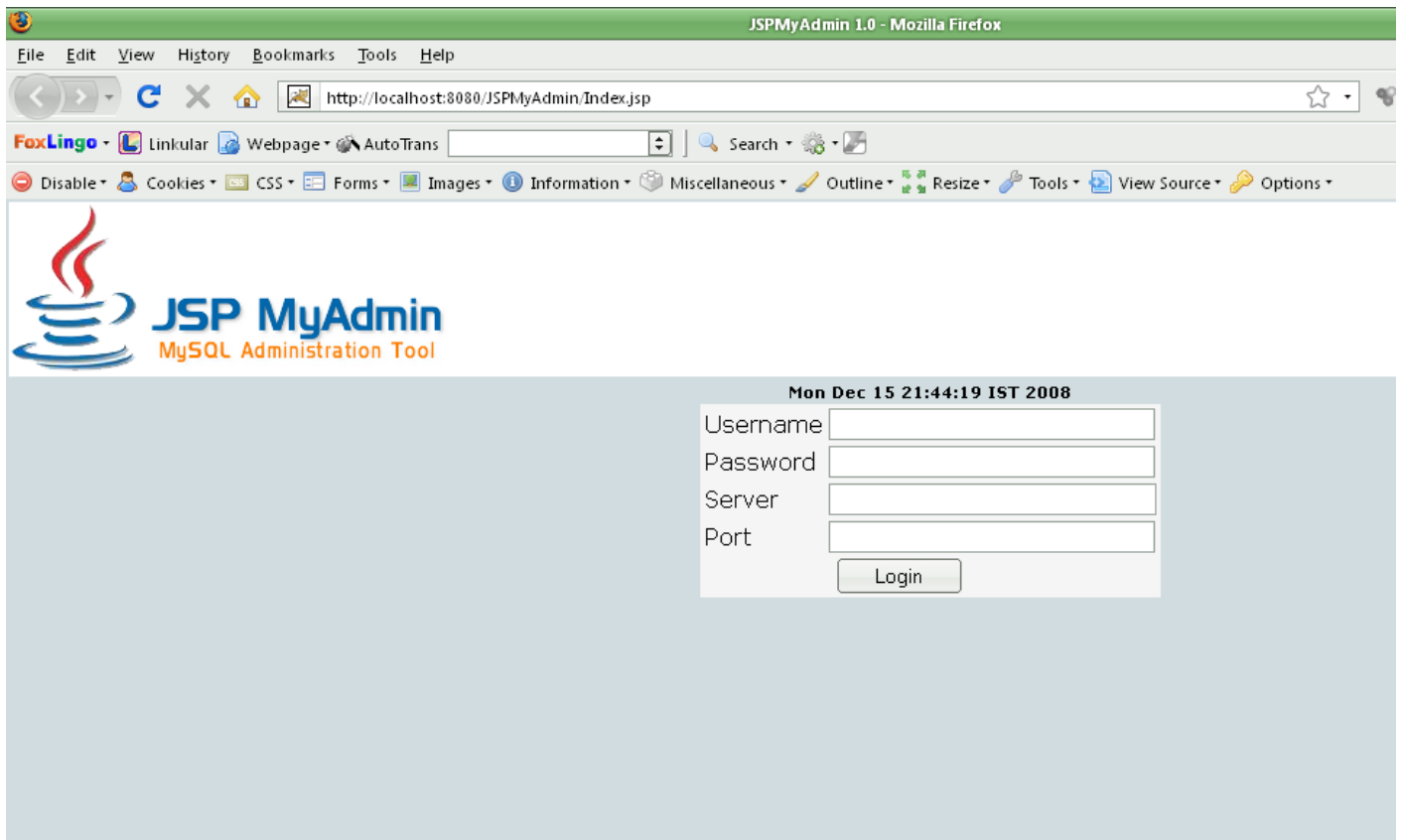
### ➤ Class Diagram

- JSP MyAdmin



# 5. System Design

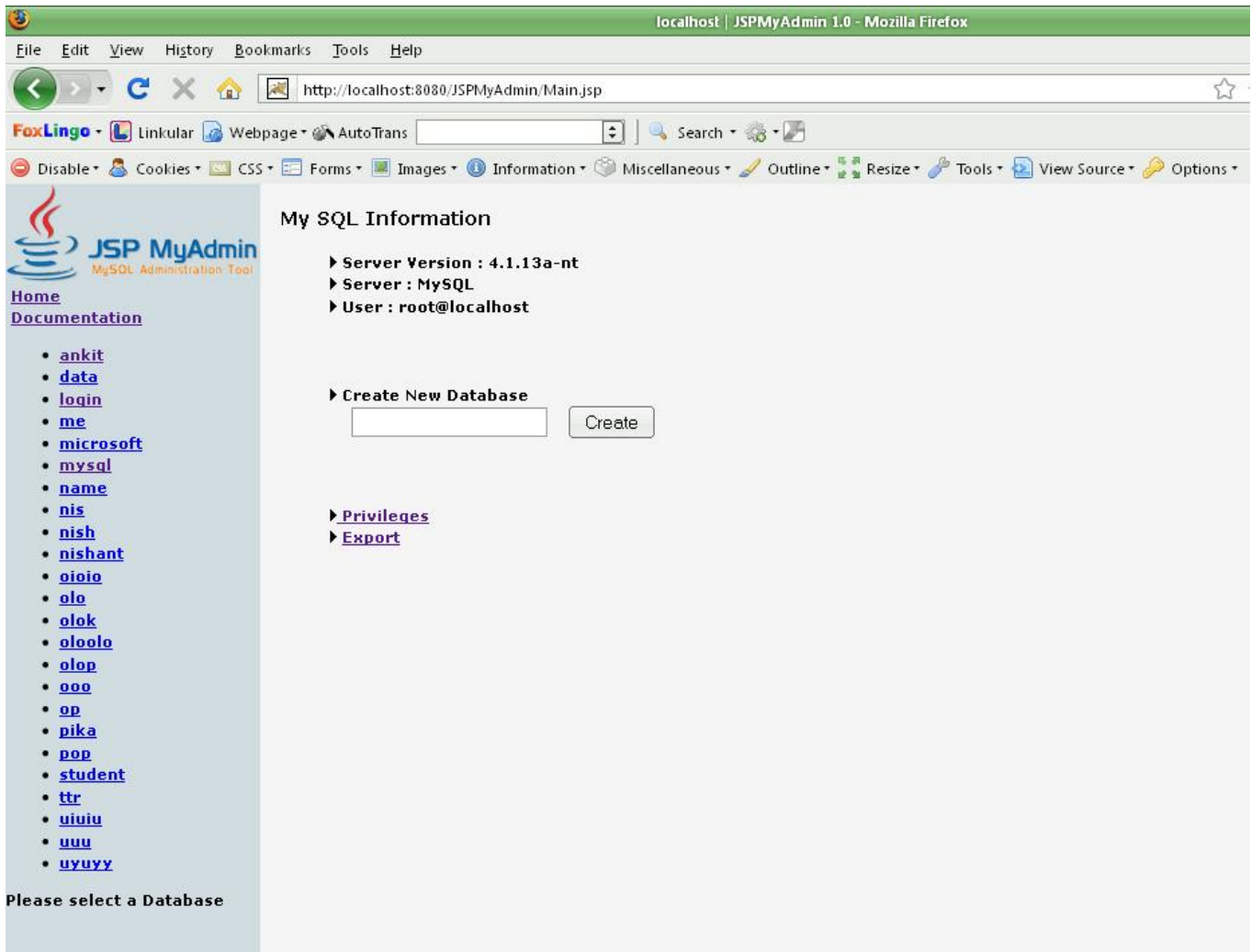
## ➤ Interaction Login Design



The screenshot shows the JSPMyAdmin 1.0 login page in a Mozilla Firefox browser window. The browser's address bar displays the URL `http://localhost:8080/JSPMyAdmin/Index.jsp`. The page features the JSP MyAdmin logo on the left, which includes a stylized red flame above a blue cup-like shape, and the text "JSP MyAdmin" in blue with "MySQL Administration Tool" in orange below it. On the right, there is a login form with the following fields and a button:

Mon Dec 15 21:44:19 IST 2008	
Username	<input type="text"/>
Password	<input type="password"/>
Server	<input type="text"/>
Port	<input type="text"/>
<input type="button" value="Login"/>	

## ➤ Main Window



## ➤ Database View

The screenshot shows the JSP MyAdmin 1.0 web interface in a Mozilla Firefox browser. The address bar shows the URL `http://localhost:8080/JSPMyAdmin/Main.jsp`. The interface is titled "localhost | JSPMyAdmin 1.0 - Mozilla Firefox".

On the left sidebar, there is a "Home" link and a "Documentation" link. Below these, there is a list of links: [ankit](#), [data](#), [login](#), [me](#), [microsoft](#), [mysql](#), [name](#), [nis](#), [nish](#), [nishant](#), [oioio](#), [olo](#), [olok](#), [oololo](#), [olop](#), [ooo](#), [op](#), [pika](#), [pop](#), [student](#), [ttr](#), [uiuiu](#), [uuu](#), and [uyuyy](#). At the bottom of the sidebar, it says "Please select a Database".

The main content area shows the "Server : localhost" and "Database : mysql". There are tabs for "Structure", "Search", "Query", "Privileges", "Export", and "Drop". The "Structure" tab is active, displaying a table with the following columns: "Table", "Action", "Records", "Type", and "Size".

Table	Action	Records	Type	Size
<input type="checkbox"/> <a href="#">columns_priv</a>				
<input type="checkbox"/> <a href="#">db</a>				
<input type="checkbox"/> <a href="#">func</a>				
<input type="checkbox"/> <a href="#">help_category</a>				
<input type="checkbox"/> <a href="#">help_keyword</a>				
<input type="checkbox"/> <a href="#">help_relation</a>				
<input type="checkbox"/> <a href="#">help_topic</a>				
<input type="checkbox"/> <a href="#">host</a>				
<input type="checkbox"/> <a href="#">tables_priv</a>				
<input type="checkbox"/> <a href="#">time_zone</a>				
<input type="checkbox"/> <a href="#">time_zone_leap_second</a>				
<input type="checkbox"/> <a href="#">time_zone_name</a>				
<input type="checkbox"/> <a href="#">time_zone_transition</a>				
<input type="checkbox"/> <a href="#">time_zone_transition_type</a>				
<input type="checkbox"/> <a href="#">user</a>				
15 table(s)				

Below the table, it says "Welcome to JSPMyAdmin 1.0, Created by Ankit Sharma".

## 8. Testing

### ➤ Integrated Testing

#### ➤ Circumstances

- ✓ My SQL Service not running while running program.
  - Exception occurred but code has been corrected after this testing and A error page is Included to notify user..
- ✓ Apache Tomcat not Working Correctly
  - No Exception but incorrect directory placed. Nothing is possible to handle such situation thus it is a major requirement of Handling the working of the Server.

### ➤ Data Validation Testing

#### ➤ Circumstances

- ✓ Incorrect data or Keyword was applied.
  - No Exception as care was taken in coding phase using JavaScript.

## 9. Conclusion

As Experience exposes sharper minds, this project has helped me greatly in developing my logic in software development in JAVA/JSP/HTML/MySQL. It had also helped me to increase the analysis power which is the key feature in developing the software. Many mistakes will easily be resolved when the next projects I will be developed. I have implemented many software engineering concepts. I have faced many technical obstacles while designing the software and so help me to find out many important solution techniques which will definitely help me in the near future.

## IO.Future Enhancements

There is always scope for enhancements in any system, are so in the ever-changing world of computers. As this project unleashes new era in MySQL GUI with cutting edge technology, but it just a beginning. Sharpness, accuracy, precision and a lot of thing can be enhanced in future versions and thus end number of features can be added to the current system.

## II. References

✓ Guided By

- Dr. Uttam Chatturvedi, IIT Bombay
- Dr. Neil Demshepherd, Sydney University

✓ Books

- JSP 2.0 (Phil Hanna)
- Java 2 Complete Reference (Herbert Schildt)
- Complete MySQL

✓ Websites / Online Reference

- [www.opensourcefoundation.com](http://www.opensourcefoundation.com)
- [www.sourceforge.com](http://www.sourceforge.com)
- [www.devlopers.com](http://www.devlopers.com)
- [www.programmersheaven.com](http://www.programmersheaven.com)