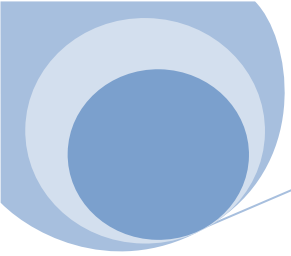


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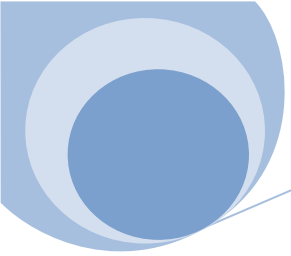
# **Software Requirement Specifications (SRS)**

**Internet Lab Management System (ILM System)**



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## 1- Introduction

### 1.1- Purpose:

This SRS describes the requirements of Internet Lab Management System. This document describes the behavior & features of Internet Lab Management System. This document will allow customer to verify that all the requirements specified are understood well by the software engineers.

### 1.2- Scope:

An SRS Group 6 consisting of total 5 members will develop an Internet Lab Management System. This Project will consist of 2 Application.

One to run on Server & Other to run on all clients connected to server to use services.

### 1.3- Definitions, Acronyms & Abbreviations:

<b>SRS:</b>	Software Requirement Specifications
<b>ILM:</b>	Internet Lab Management.
<b>PC:</b>	Personal Computer
<b>Client:</b>	PC on which customer of Internet Lab uses Internet
<b>User:</b>	Person who uses Services on a Client PC.
<b>Server:</b>	PC that will provide services to the client also manages clients.
<b>Admin:</b>	A Person who will use the Server.
<b>ILM SERVER:</b>	software which will run on Server
<b>ILM Client:</b>	software which will run on Client

<b>HTTP:</b>	Hyper-Text Transfer Protocol
<b>Apache:</b>	An Open Source Software used as HTTP Server Application.
<b>SQL:</b>	Structured Query Language.
<b>UserID:</b>	Unique Username for each user.
<b>Password:</b>	Secret Code to access the account.

#### **1.4- Overview:**

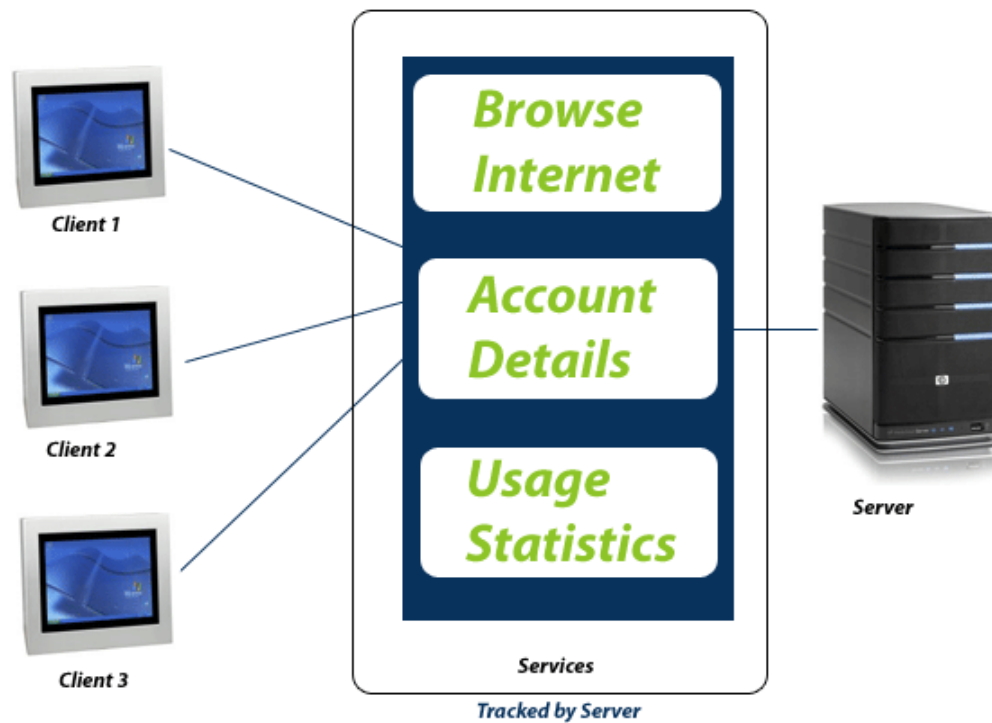
The First Section of SRS gives a brief Idea that what the ILM is, it's need & some background. It also shows the purpose & scope of the project.

2<sup>nd</sup> Section shows basic function, Constraints & Operating Environments.

3<sup>rd</sup> Section includes the detailed requirements, different features of ILM System & the Functional requirements

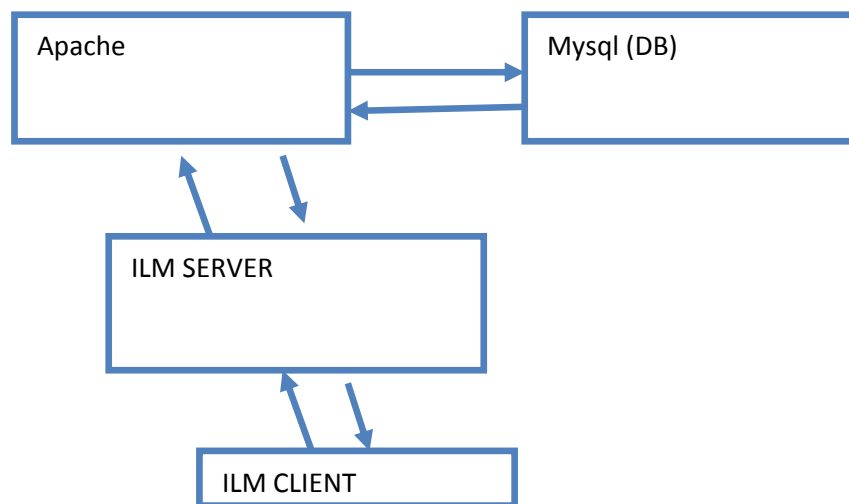
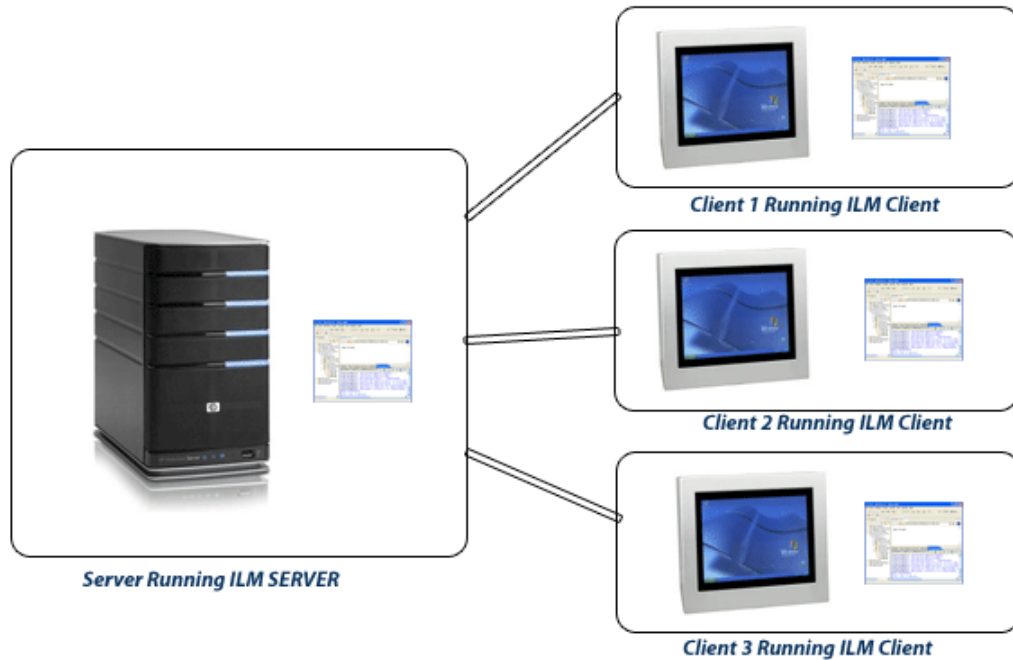
## 2- Overall Description:

### 2.1- Product Perspective:



The Internet Access to the client will be granted only when it is verified & allowed by the Server. When a client is accessing Internet, it will be tracked completely by the server with help of 'ILM Client' running on the Client PC.

## 2.2- Product Functions:



'**ILM SERVER**' should be running on the server, and an instance of '**ILM Client**' should also be running on each client. Server has direct connection with the internet and it allows clients to use this internet service on successful login.

## 3- Detailed Requirements

### 3.1- External Interface Requirements:

#### 3.1-1. User Interfaces:

##### Login Screen:

This is the login screen for users on client side & will be controlled by ILM Client running on client PC.

##### User Management Screen:

It allows admin to interact with system to add users, remove users, manage their profiles, etc.

##### User Statistics:

This screen allows admin to see the statistics of user, in a table form and also in the graph form.

#### 3.1-2. Software Interfaces:

ILM System uses Apache & Mysql on Server to Store & Retrieve data. And it uses Executables created using Visual Basic.

#### 3.1-1. Communication Interfaces:

As ILM System uses Apache so it works on HTTP to transfer information & interact. So It allows easy interaction.

### 3.2- System Features:

#### 3.2-1. User Management:

##### 3.2-1.1. Purpose of Features:

This Feature will manage the user accounts, Registration of new users, their profiles etc. This feature will be available to Admin running the ILM Server.



### 3.2-1.2. Stimulus /Response Sequence:

**Admin:** Admin can add new users, can edit/update their profiles, can change passwords of users (& cannot see their old passwords off course)

### 3.2-1.3. Associated Functional Requirements:

- |        |  |
|--------|--|
| SRS001 | <b>Add Users</b><br><br>The Internet LAB Management System shall allow the <i>Admin</i> to add new <i>users</i> to the system's database.  |
| SRS002 | <b>User Profile</b><br><br>The ILM system will generate a user's profile, which will have all users' information like account number, UserID, Password, Full Name, Address, and Phone etc. |

## 3.2-2. Authentication:

### 3.2-2.1. Purpose of Features:

This feature will ensure that user will use his/her own account to use the Lab PC on Client Level & gives only access to his/her own account/services by using the unique UserID & password.

Also gives access to ILM Server while provided admin account UserID & password.

### 3.2-2.2. Stimulus /Response Sequence:

**Users:** Login/Logout

**Admin:** Login/Logout

### 3.2-2.3. Associated Functional Requirements:

- |        |   |
|--------|---|
| SRS003 | <b>Login</b><br><br>All clients should have running ILM Client & Server should've running ILM Server. Users will input the username & password, Server will authenticate it from the Database and gives access to account/services. |
|--------|---|

### 3.2-3. Monitoring & Statistics:

#### 3.2-3.1. Purpose of Features:

This feature is used to monitor the user, current status of user. Basically it will provide real-time reporting & statistics of user.

#### 3.2-3.2. Stimulus /Response Sequence:

**Admin:** View current status of user, what is user doing, what he had done in last month, etc.

#### 3.2-3.3. Associated Functional Requirements:

SRS004	<b>Monitor Users</b>	Whenever user opens a new file/program, it will be tracked by ILM SERVER using ILM CLIENT. And log is saved in the database on Server.
SRS005	<b>User Statistics</b>	Admin can see the old logs. He can prune these records. And can create the graphs based on the statics of applications used, logged in during last week/month etc...

### 3.2-4. Balance Management:

#### 3.2-4.1. Purpose of Features:

This feature is used to check the current balance of a user, Add balance, Etc.

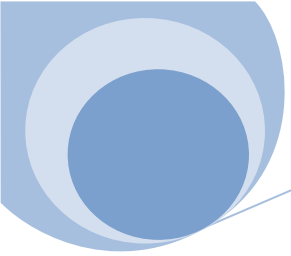
#### 3.2-4.2. Stimulus /Response Sequence:

**Admin:** View current Balance of user, Add Balance to User Account, Manage the balance deduction

**User:** View current balance of his account

#### 3.2-4.3. Associated Functional Requirements:

SRS006	<b>Balance Deduction</b>	Account balance of user will be deducted from his account on the base of per minute. Administrator can Set this balance deduction, that how much balance
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should be deducted from the users' account when User is logged in for 1 minute.

**SRS007 View Current Balance**

User can check the current balance of his account & also Admin can check the balance of a user.

**SRS008 Add Balance**

Admin can add Balance to the users' account.

### **3.3- Other Non-Functional Requirements:**

#### **3.3-1. Performance Requirements:**

The important requirement of ILM System is that it should work in less time means it should be efficient & should work better for Balance management (Automatic Balance Deduction).

#### **3.3-2. Security Requirements:**

The security system features login for each user to assure the security. User must have it's own UserID & password in order to access his account & should have balance in his account to Access Internet.

#### **3.3-3. Software Quality Attributes:**

The software will be open source so that further improvements in the software will be easy.

#### **3.3-4. Backup & Recovery:**

The software should provide automatic backup of the database to a remote Server in order make the system more reliable. And this system will be recovered from within the system in order the data is lost on local server.