Case Study: Botanical Survey of India
Technical Skill: Java/J2EE, MySQL, Servlet, Tomcat 5.5,

CLIENT NAME	COUNTRY	SOLUTION AREA	STATUS
Botanical Survey of India	India	Data Management Software	Completed

Overview

This is data management software. Through this software data will be interacted with user's choice. From This software user can easily search their intending items. There is an 'Indexing' Facility of each item. The data is managed in an organized way through this software. This software is very much easy to handle and very much user friendly. The software has two versions. **Version 1** and **Version 2**. Let us describe these two versions in the functional part.

Functional Area

Basically this software deals to mange some raw data and images in its own way. This data management product has two versions Version 1 and Version 2. Version 1 maintains images and search in normal way. And in respect of Version 2 it maintains the Advance Search technique in a very much simple way. Now we will move for the details functionality of version 1 and version 2.

Functionality of Version 1- First of all, after the proper installation when the software will run, then firstly the two major part of the software will be viewable. One is "**Create Image**" and the second one is "**View Image**". The functionality of "Create image" is to create or store the images with some proper description (Raw data). Each image will be stored with respect to different "Index ID". We can store image in 3 categories through our product or software. First is The "**Dye Sample**" image creation. Second one is the "**Textile Design**" image creation. And the third one is the "**Botanical Painting**" image Creation. The all data with respect to their individual image will be stored in the database. After the successful insertion of each image and data, a message will be displayed like this – "**Successful insertion of image with proper description**". If some data is not uploaded, then another message will be displayed like this "**Unsuccessful upload of an image**". This is the case of image insertion.

Now we want to fetch the data. Then we will go for the "**View Image**" link. Here we will fetch the data through "Volume No". With respect to volume no ,or when we put the volume no in a text field ,then after clicking the search button ,we will get the whole data or whole image in a "Thumbnail view" format under the particular volume no. In this "**Thumbnail view**" format, some data of the image has clubbed. Now every thumbnail view has a hyperlink option with respect to image. Clicking on the thumbnail image, we will get the larger view of the particular image. Now if I click this large image respect to thumbnail image, then we will get the original Version of the particular image.

At the time of releasing of Version 1. The three category of image (like "Thumbnail", "Medium big", "Original") had molded through our internal calculation of the software. But here was some problem. Since the size of the all images are very large, so the RAM of the system could not be able to process the all thumbnail images at a time. And one more thing the thumbnail image had little bit distorted. But In version 2 we have replacing the calculation of image, and put the different image with three different names. But represents the same image. Like "**Create Image**" we can fetch the image in 3 categories.

Functionality of Version 2-

In Version 2 We have introduced some advance search features. We have Also introduce some edit section, from where we can modify the some Proper image value. In advance search we can search an image more   efficiently. We have to put just "volume no" and "index no" and we will get the particular image of the particular volume. In version 2 we have introduced a big major part. It is, search the image with respect to any   Data. In version 1 there was an only one way. You can search the images only for "Volume no". We will try to introduce version 3   in the near Future with some more features.

Technical and Architectural Area:

This Software is developed by JAVA language. For developing this software we use the J2EE Part of java language. In this j2ee part we use. Servlet, JSP technology it's based on MVC Architecture. That is Model, View, and Controller. Here we use "Servlet" class as a controller. JSP part as a view purpose. And for model Purpose we use DAO class. (Data Access Object) Here we also maintain or use a Abstract Factory design pattern. We use Tomcat server i.e. web server for deploying the "WAR" file.

Technical Specifications

Key Components	
Front End	**Java/J2EE**
Technology	**Servlet**
Web Server	**Tomcat 5.5**
Database	**MySQL**