**Technical Report**

**Environment Setup**

To develop JSF application, firstly we need to install following files

* **Java Application Server**

There are different java application servers such as Tomcat, Glass fish etc. Here I am using Tomcat server.

* **Java Integrated Development Environment**

The IDE may be anything like Text pad, note pad, NetBeans, Eclipse.

Here I am using Eclipse.

* **JSF Jar Files**

JSF is an API. It has number of classes, Interfaces that we have to use. We can do it by downloading jar files and we need to include them in a project. Eclipse will automatically download the jsf jar files and includes them in project.

* **Data Base**

We need a database to store the user information. Here, in my application we are using My SQL data base to store the information.

**Installing Tomcat on windows:**

Step-1: Download the Tomcat

Website for downloading tomcat is [**http://tomcat.apache.org**](http://tomcat.apache.org/)

Step-2: Setup the environment

Step-3: Verify the installation

Just go to the browser and type this link then it shows Tomcat server.

<http://localhost:8080>

**Installing Eclipse on windows:**

Step-1: Download the Eclipse

Website for downloading Eclipse is

<https://www.eclipse.org/downloads/packages/release/neon/3/eclipse-ide-java-ee-developers>

Step-2: Unzip the Eclipse.

Extract the file and place the file in C folder.

Step -3: Run the eclipse.

**Connecting Eclipse and Tomcat:**

Here Tomcat and Eclipse both are separate applications, by connecting Tomcat and eclipse we can access or start tomcat from eclipse. We can easily deploy JSF applications directly to Tomcat.

**Installing MY SQL database in windows:**

Step-1: download the My SQL files

Website to download the My SQL files are

<https://dev.mysql.com/downloads/installer/>

Step-2: Agree the conditions and set up the environment.

**Steps after setting the environment:**

In JSF we can reuse the components. We don’t need to write the code for some components which appears in every web page of application.

To create a web application first, I am creating basic template which contains header and footer. So, I can use header and footer everywhere in my application.

My web application contains Home page, login page, signup page and contact us.

Open eclipse environment 🡪 Right click on File 🡪 Select import🡪select general🡪existing projects into workspace🡪click next🡪 select archive file 🡪 upload the submitted file.

How to run it.

click on uploaded file 🡪 In web content right click on homepage.xhtml file 🡪 click run as on server 🡪 click finish 🡪 it generates the output.

**Uploaded Files**

I uploaded all the files of my application. The uploaded files contain following folders web content folder, source folder, setting folder, metadata folder, project folder, class path file.

Click on the web content folder 🡪 it displays all the code files such as login, sign up, home page.

Click on web content🡪click on web inf 🡪 it displays web.xml and faces config.xml file.