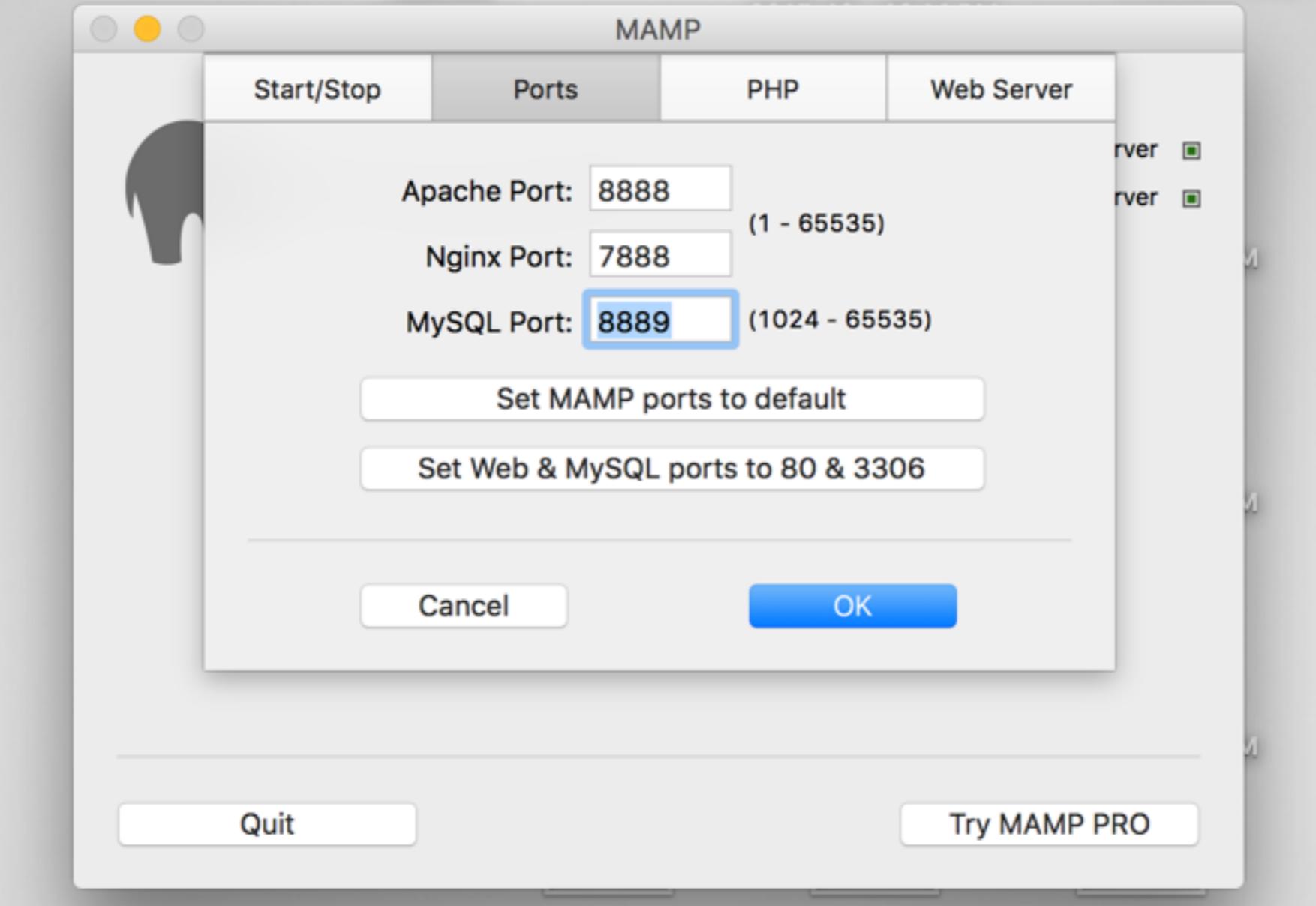


SMB 214

Expenses

- Netbeans
- MAMP



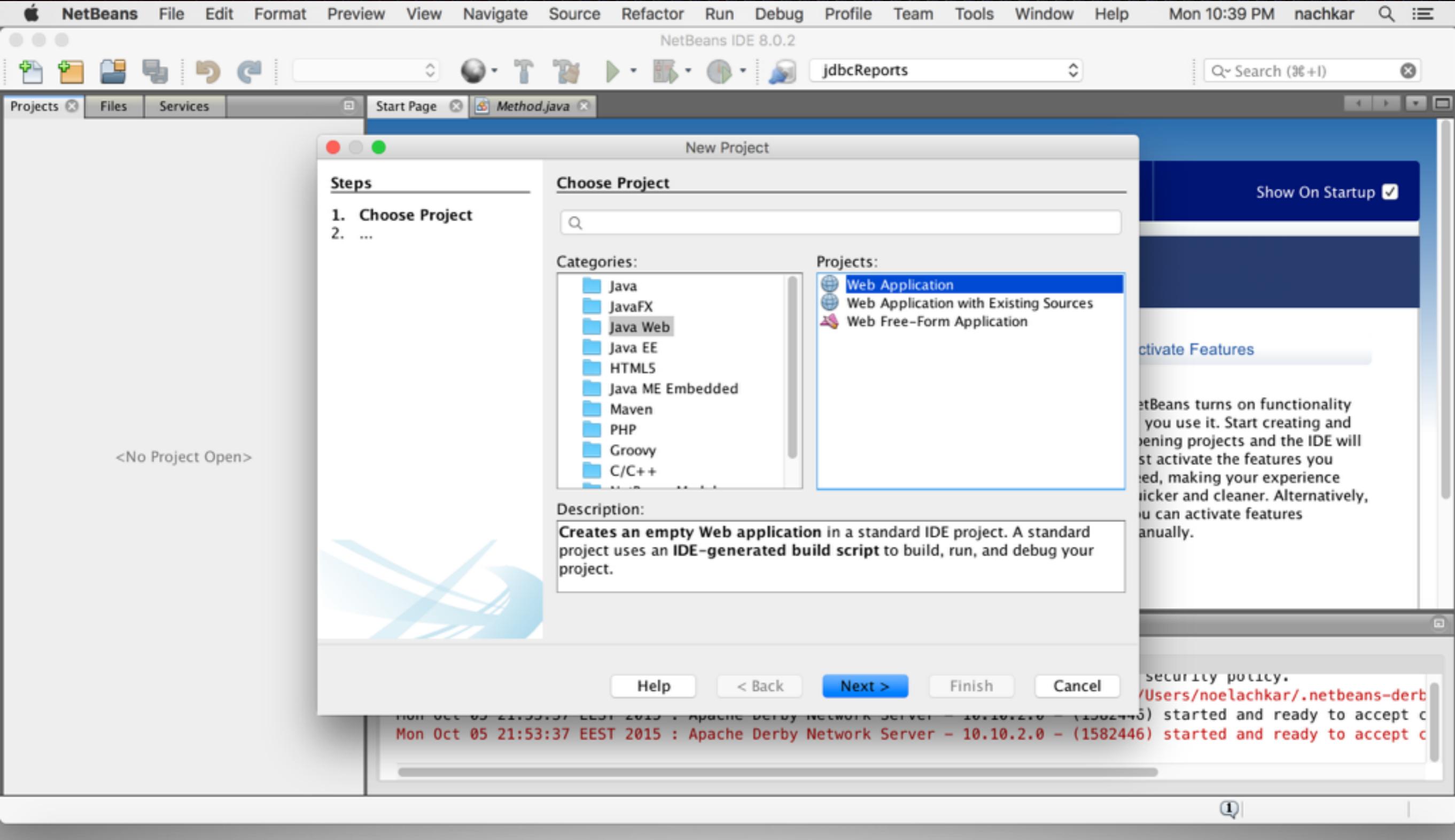
- Start the servers from MAMP

The screenshot shows the MAMP phpMyAdmin interface. The left sidebar lists databases: Expenses, New, Categories, Operations, and Users. The main area displays the 'Structure' tab for the 'Expenses' database, showing three tables: Categories, Operations, and Users. The 'Categories' table has 2 rows, 'Operations' has 5 rows, and 'Users' has 4 rows. Below the table list is a 'Create table' form with 'Name:' set to 'New' and 'Number of columns:' set to 4.

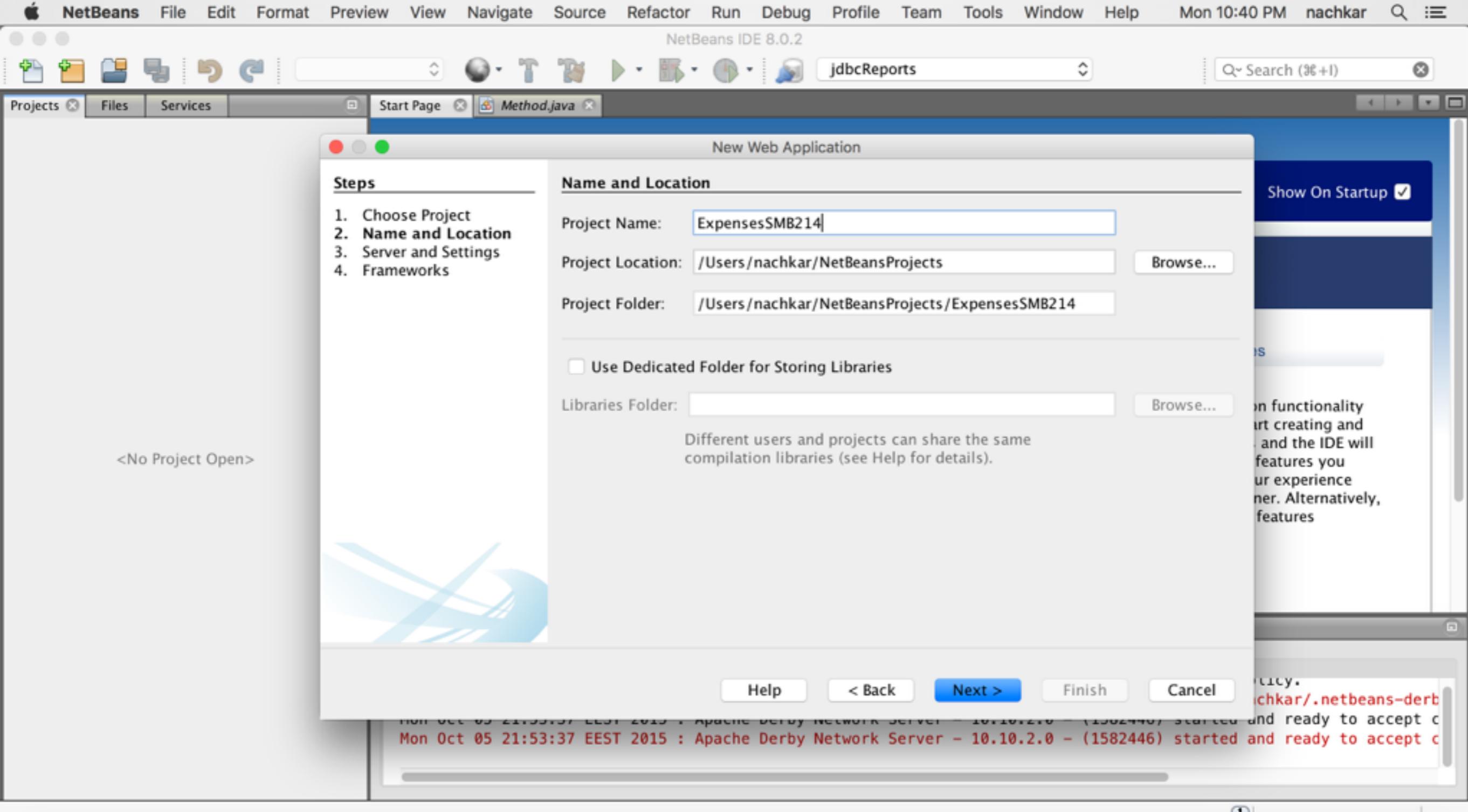
Create the database and tables

The screenshot shows the MAMP phpMyAdmin interface. The left sidebar lists databases: Expenses, New, Categories, Operations, and Users. The main area displays the 'Structure' tab for the 'Users' table within the 'Expenses' database. The table contains 4 rows. The 'Username' column shows 'hkr', 'admin', 'test', and 'achkar'. The 'Password' column shows hashed passwords. The 'FirstName' and 'LastName' columns show 'Noel' and 'Achkar' respectively. Below the table is a 'Query results operations' section with links for Print view, Print view (with full texts), Export, Display chart, and Create view.

	Edit	Copy	Delete	ID	Flag	Username	Password	FirstName	Lastname
<input type="checkbox"/>				3	0	hkr	df0121f0f39b1e7e79151f906f3834d77355f2472e2236900...	Noel	Achkar
<input type="checkbox"/>				4	1	admin	8c6976e5b5410415bde908bd4dee15dfb167a9c873fc4bb8a8...	NULL	
<input type="checkbox"/>				6	0	test	9186d081884c7d659a2feaa0c55ad015a3bf4f1b2b0b822cd1...	test	test
<input type="checkbox"/>				7	0	achkar	achkar	hkr	hkr

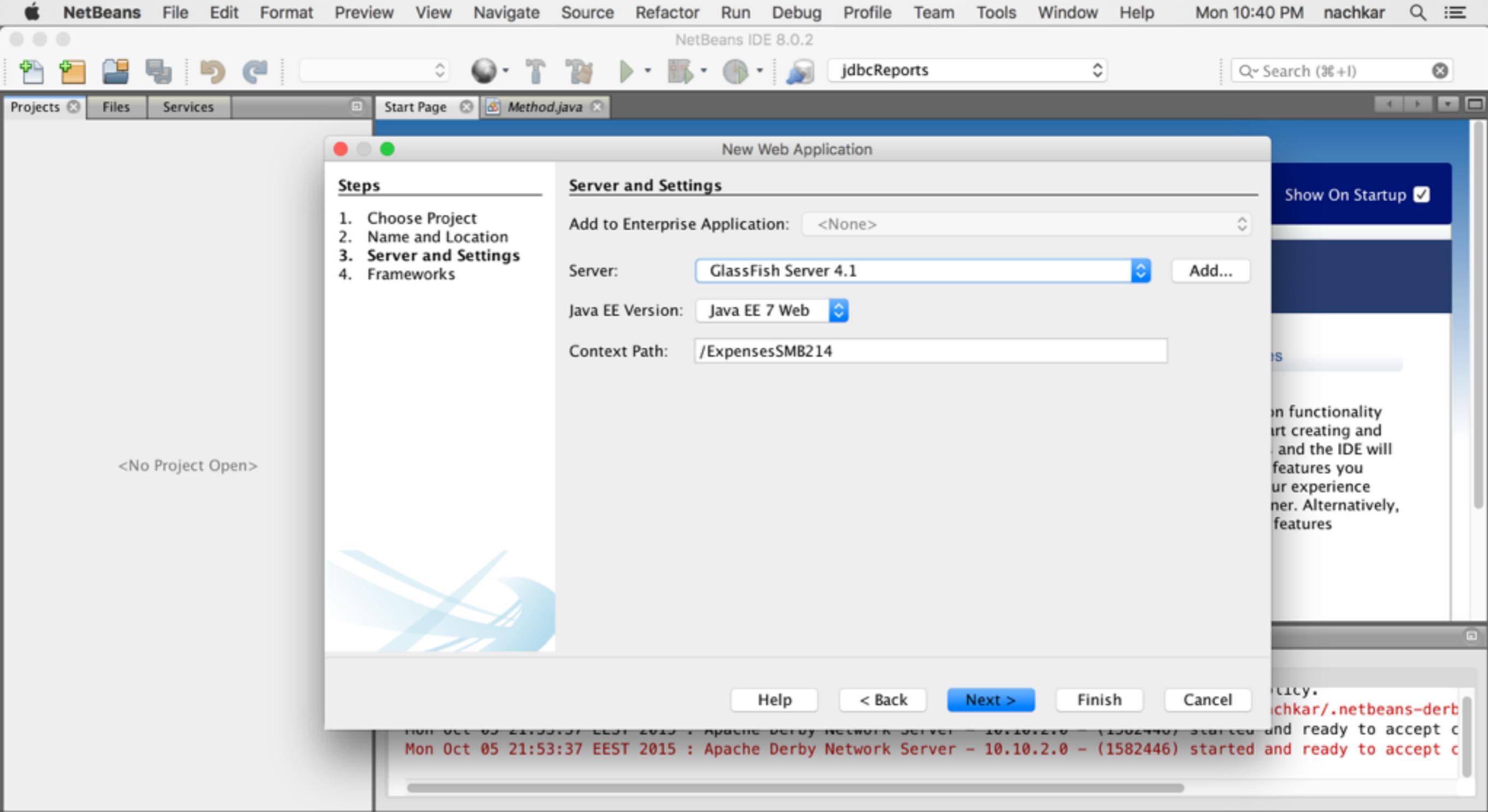


Create New Project

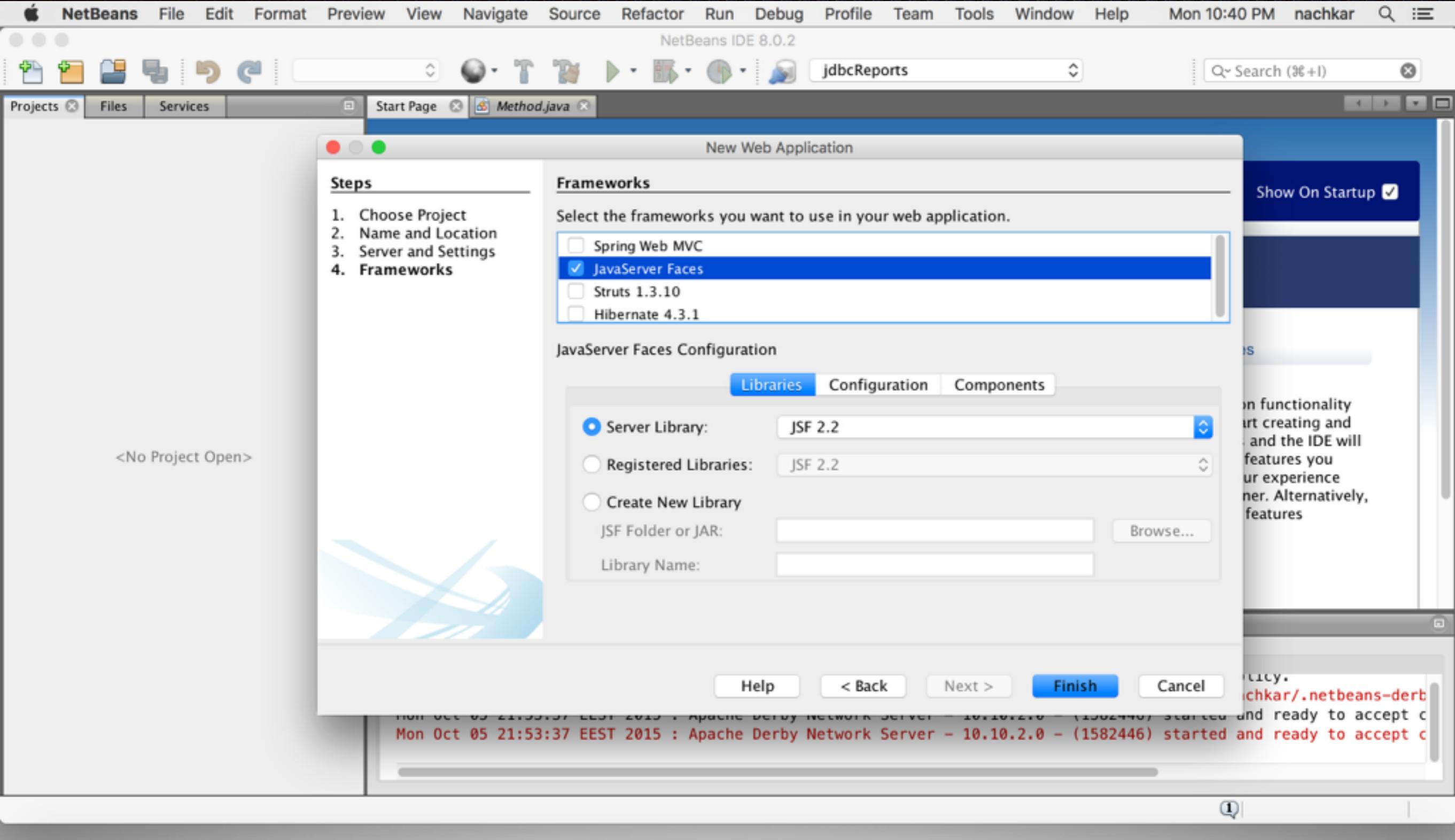


Create New Project

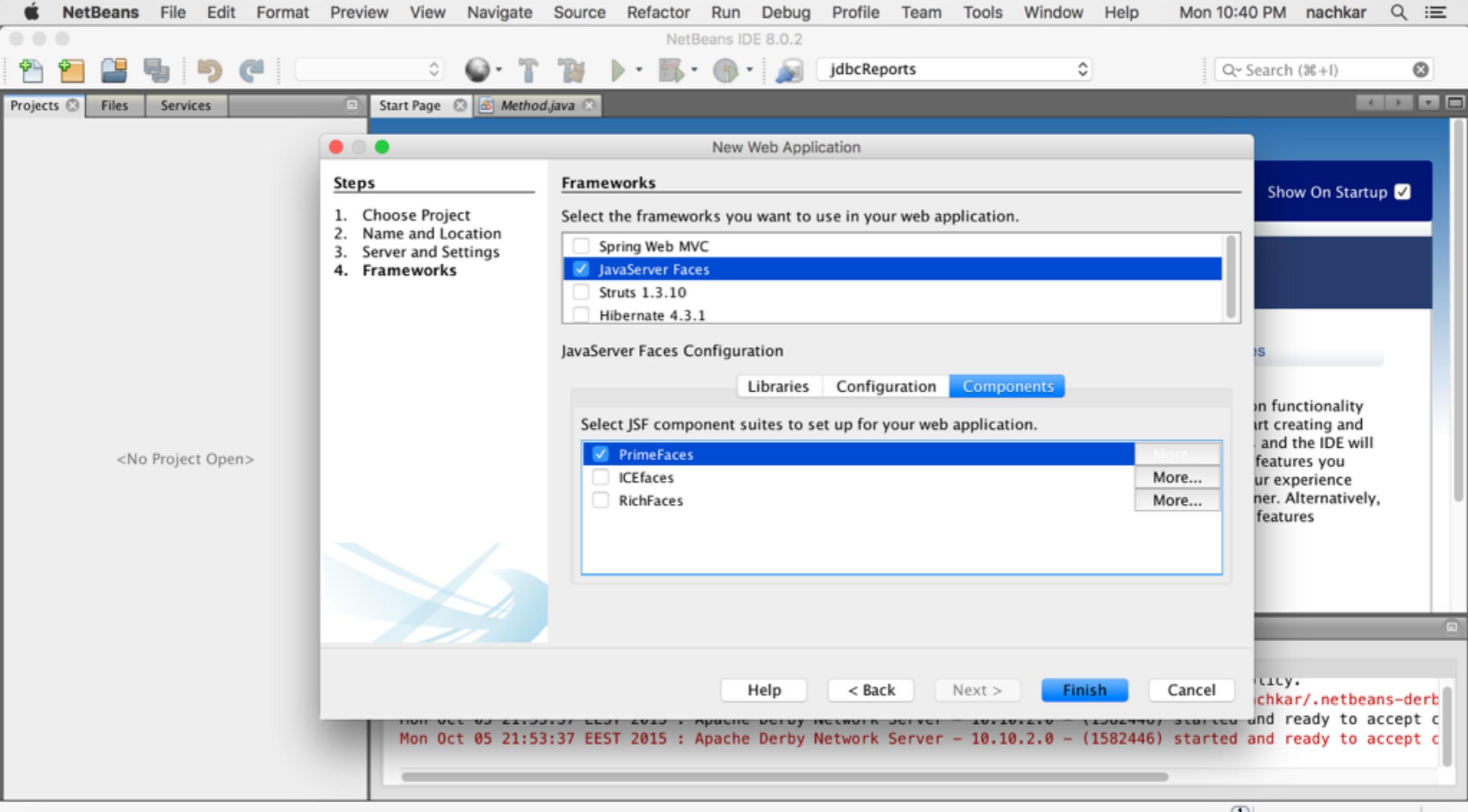




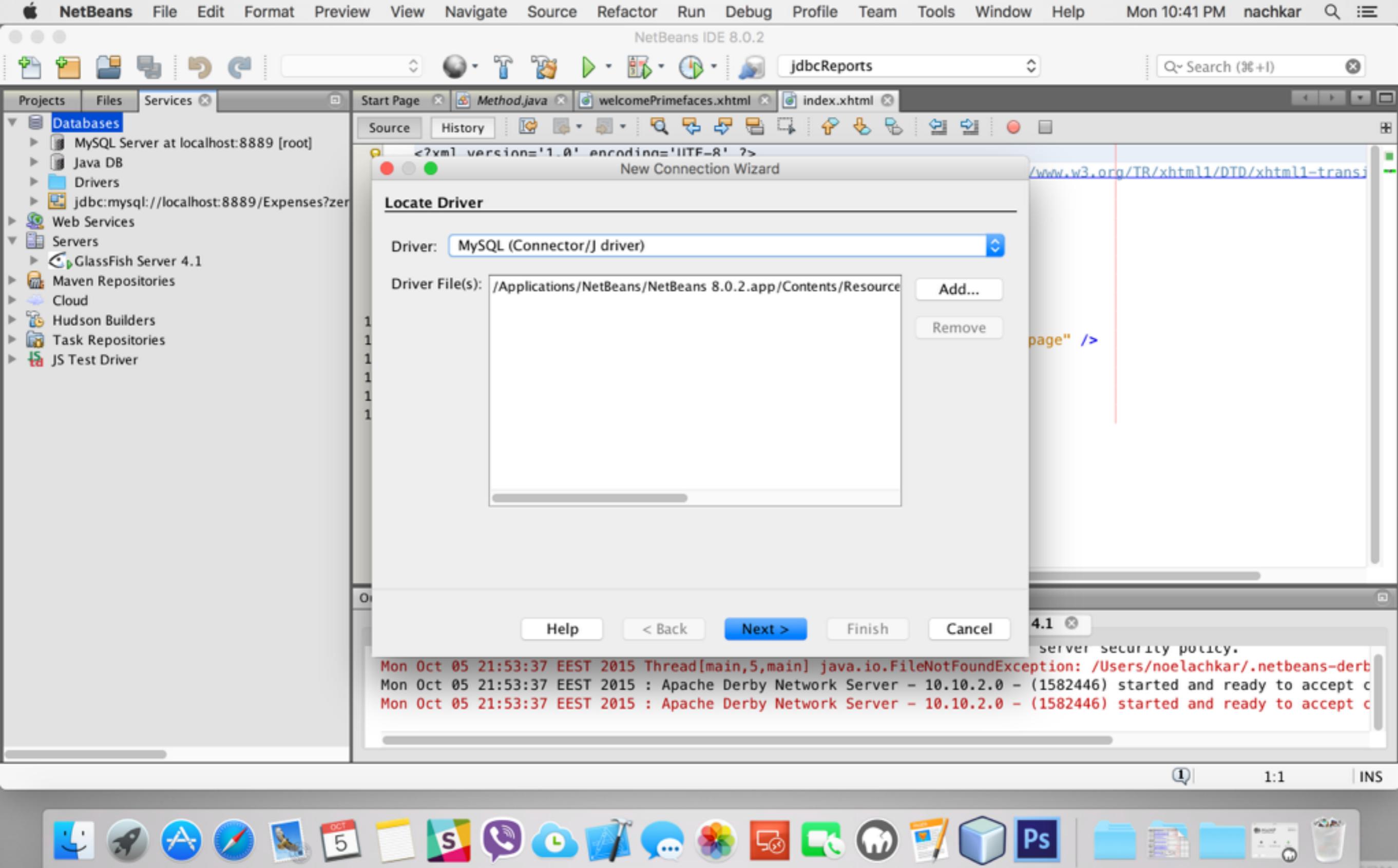
Create New Project



Create New Project



Create New Project



Create the database connection

NetBeans File Edit Format Preview View Navigate Source Refactor Run Debug Profile Team Tools Window Help Mon 10:41 PM nachkar

NetBeans IDE 8.0.2

Projects Files Services Start Page jdbcReports Search (⌘+I)

Databases MySQL Server at localhost:8889 [root] Java DB Drivers jdbc:mysql://localhost:8889/Expenses?zeroDateTimeBehavior=convertToNull Web Services Servers GlassFish Server 4.1 Maven Repositories Cloud Hudson Builders Task Repositories JS Test Driver

NetBeansIDE Learn & Discover My NetBeans What's New Show On Startup

My NetBeans

Recent Projects

- WebApplication1
- Test
- expenses
- expenses
- represent-map
- expenses
- expenses_last
- expenses

Install Plugins Add support for other languages and technologies by installing plugins from the NetBeans Update Center.

Activate Features NetBeans turns on functionality as you use it. Start creating and opening projects and the IDE will just activate the features you need, making your experience quicker and cleaner. Alternatively, you can activate features manually.

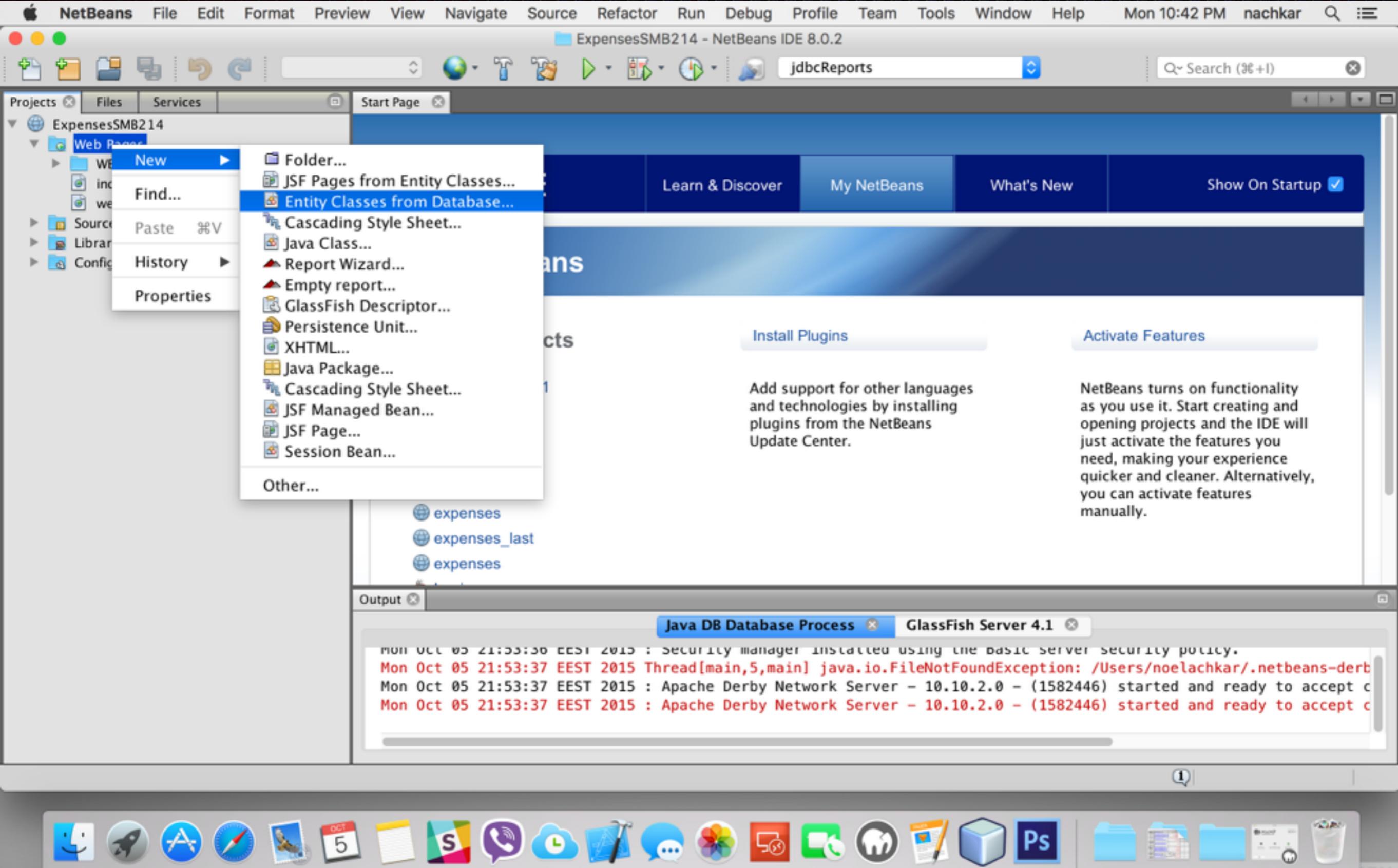
Output Java DB Database Process GlassFish Server 4.1

```
Mon Oct 05 21:53:30 EEST 2015 : Security Manager installed using the BASIC server security policy.  
Mon Oct 05 21:53:37 EEST 2015 Thread[main,5,main] java.io.FileNotFoundException: /Users/noelachkar/.netbeans-derby  
Mon Oct 05 21:53:37 EEST 2015 : Apache Derby Network Server - 10.10.2.0 - (1582446) started and ready to accept c  
Mon Oct 05 21:53:37 EEST 2015 : Apache Derby Network Server - 10.10.2.0 - (1582446) started and ready to accept c
```

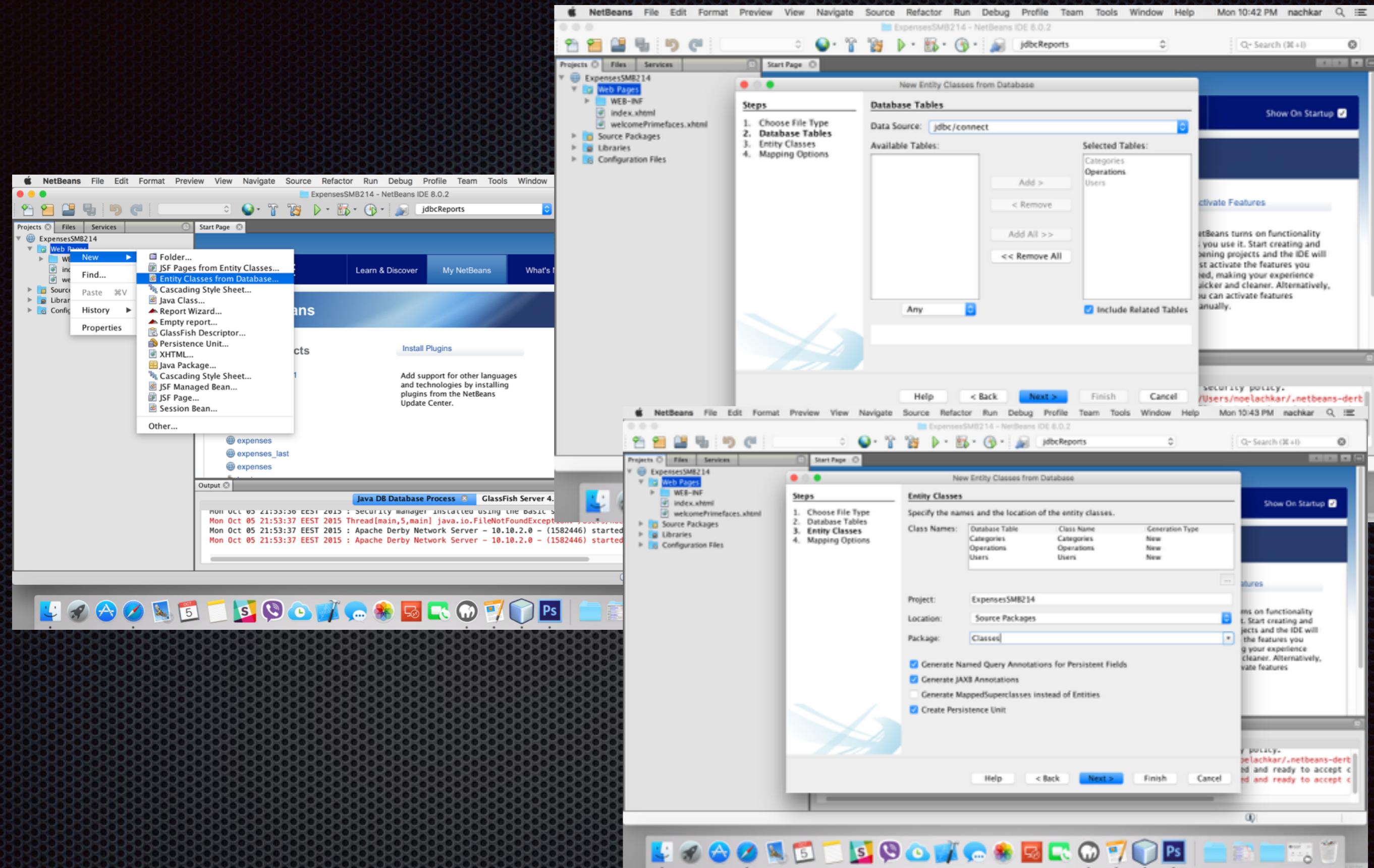
1

A row of Mac OS X Dock icons including Finder, Mail, Safari, and others.

Start the glassfish server



Create entity classes from database



Create entity classes from database

NetBeans File Edit Format Preview View Navigate Source Refactor Run Debug Profile Team Tools Window Help Mon 10:43 PM nachkar

ExpensesSMB214 - NetBeans IDE 8.0.2

Start Page

New JSF Pages from Entity Classes

Steps

1. Choose File Type
2. Entity Classes
3. Generate JSF Pages and Classes

Entity Classes

Available Entity Clas...

Add >

< Remove

Add All >>

<< Remove All

Selected Entity Classes:

- Classes.Categories
- Classes.Operations
- Classes.Users

Include Referenced Cla...

Help < Back Next > Finish Cancel

Mon Oct 05 21:53:37 EEST 2015 : Security Manager installed using the basic server security policy.

Mon Oct 05 21:53:37 EEST 2015 Thread[main,5,main] java.io.FileNotFoundException: /Users/noelachkar/.netbeans-derby

Mon Oct 05 21:53:37 EEST 2015 : Apache Derby Network Server - 10.10.2.0 - (1582446) started and ready to accept c

Mon Oct 05 21:53:37 EEST 2015 : Apache Derby Network Server - 10.10.2.0 - (1582446) started and ready to accept c

Show On Startup

Activate Features

NetBeans turns on functionality you use it. Start creating and opening projects and the IDE will activate the features you need, making your experience quicker and cleaner. Alternatively, you can activate features manually.

Projects Files Services

ExpensesSMB214

Web Pages WEB-INF index.xhtml welcomePrimefaces.xhtml

Source Packages Classes Categories.java Operations.java Users.java

Libraries Configuration Files

Create JSF Pages from entity classes

- Login bean without j security check

```
92     }
93 }
94
95     public void setUsername(String username) {
96         this.username = username;
97     }
98     public void checkValidUser()
99     {
100         dbData();
101
102         FacesContext context = FacesContext.getCurrentInstance();
103         switch (flag) {
104             case "0":
105                 context.getExternalContext().getSessionMap().put("flag", "0");
106                 context.getExternalContext().getSessionMap().put("userId",userId);
107             case "1":
108                 context.getExternalContext().getSessionMap().put("flag","1");
109                 context.getExternalContext().getSessionMap().put("userId",userId);
110         }
111     }
112 }
113 }
```

at org.glassfish.grizzly.threadpool.AbstractThreadPool\$Worker.run(AbstractThreadPool.java:545)
at java.lang.Thread.run(Thread.java:745)

INFO: Redirecting to /
Info: Admin Console: Initializing Session Attributes...
Info: Domain Pinged: release.glassfish.org
Info: Realm [admin-realm] of classtype [com.sun.enterprise.security.auth.re

View View Navigate Source Refactor Run Debug Profile Team Tools Window Help Mon 10:44 PM nachkar Search

expenses - NetBeans IDE 8.0.2

Start Page web.xml persistence.xml glassfish-web.xml List.xhtml List.xhtml Login.xhtml

Source History

```
8 </h:head>
9 <h:body>
10
11     <div class="login">
12
13         <form method="POST" action="j_security_check">
14             <fieldset>
15                 <label class="label" for="username">Username</label>
16                 <input type="text" name="j_username" class="textfield"/>
17             </fieldset>
18             <fieldset>
19                 <label class="label" for="password">Password</label>
20                 <input type="password" name="j_password" class="textfield"/>
21             </fieldset>
22             <fieldset>
23                 <input type="submit" value="" class="login-btn"/>
24             </fieldset>
25
26         </form>
27     </div>
28
29 </h:body>
30
31
```

Output

Java DB Database Process GlassFish Server 4.1

```
INFO: Redirecting to /
Info: Admin Console: Initializing Session Attributes...
Info: Domain Pinged: release.glassfish.org
Info: Realm [admin-realm] of classtype [com.sun.enterprise.security.auth.realm.FileRealm] successfully
```

Create login page with j security check

The screenshot shows an IDE interface with two main panes. The top pane is a code editor for 'OperationController.java' containing Java code. The bottom pane is an 'Output' window showing a stack trace from a 'GlassFish Server 4.1' process.

```
240     }
241 }
242
243     public List<Operations> getItems() {
244
245         if (items == null)
246         {
247             switch (flag) {
248                 case "0":
249                     items = getFacade().findByUser(userId);
250                     break;
251                 case "1":
252                     items = getFacade().findAll();
253                     break;
254             }
255         }
256         return items;
257     }
258
259     private void persist(PersistAction persistAction, String successMessage) {
260         if (selected != null) {
261             setEmbeddableKeys();
262             try {
```

Java DB Database Process GlassFish Server 4.1

```
at org.glassfish.grizzly.threadpool.AbstractThreadPool$Worker.run(AbstractThreadPool.java:545)
at java.lang.Thread.run(Thread.java:745)
```

- Function modified to retrieve if admin all the operations and if user only his related ones (OperationController.java)

- Find by user function and the named query created

expenses - NetBeans IDE 8.0.2

Source History

```

29     getEntityManager().merge(entity);
30 }
31
32 public void remove(T entity) {
33     getEntityManager().remove(getEntityManager().merge(entity));
34 }
35
36 public T find(Object id) {
37     return getEntityManager().find(entityClass, id);
38 }
39
40 public List<T> findByUser(int id){
41     List results = getEntityManager().createNamedQuery("Operations.findByUser")
42         .setParameter("userid", id)
43         .getResultList();
44     return results;
45 }
46
47 public List<T> findUser(int id){
48     List results = getEntityManager().createNamedQuery("Users.findUser")
49         .setParameter("userid", id)
50         .getResultList();
51     return results;
52 }
```

Java DB Database Process GlassFish Server 4.1

```

at org.glassfish.grizzly.threadpool.AbstractThreadPool$Worker.run(Abstract
at org.glassfish.grizzly.threadpool.AbstractThreadPool$Worker.run(Abstract
at java.lang.Thread.run(Thread.java:745)
```



expenses - NetBeans IDE 8.0.2

Source History

```

26 /**
27 * @author nachkar
28 */
29 @Entity
30 @Table(name = "Operations")
31 @XmlRootElement
32 @NamedQueries({
33     @NamedQuery(name = "Operations.findAll", query = "SELECT o FROM Operations o"),
34     @NamedQuery(name = "Operations.findById", query = "SELECT o FROM Operations o WHERE o.id = :id"),
35     @NamedQuery(name = "Operations.findByDescription", query = "SELECT o FROM Operations o WHERE o.description = :description"),
36     @NamedQuery(name = "Operations.findByAmout", query = "SELECT o FROM Operations o WHERE o.amout = :amout"),
37     @NamedQuery(name = "Operations.findByUser", query = "SELECT o FROM Operations o WHERE o.userid.id = :userid")})
38
39 public class Operations implements Serializable {
40     private static final long serialVersionUID = 1L;
41     @Id
42     @GeneratedValue(strategy = GenerationType.IDENTITY)
43     @Basic(optional = false)
44     @Column(name = "id")
45     private Integer id;
46     @Basic(optional = false)
47     @NotNull
48     @Size(min = 1, max = 50)
49     @Column(name = "description")
```

Java DB Database Process GlassFish Server 4.1

```

at org.glassfish.grizzly.threadpool.AbstractThreadPool$Worker.run(Abstract
at org.glassfish.grizzly.threadpool.AbstractThreadPool$Worker.run(Abstract
at java.lang.Thread.run(Thread.java:745)
```



Safari File Edit View History Bookmarks Develop Window Help localhost

Outgoings/Steps.txt at m... nachkar/Expenses Welcome to NetBeans Favorites MAMP Edit JDBC Resource Add creative blur to phot... +

Home About... User: admin Domain: domain1 Server: localhost GlassFish™ Server Open Source Edition

Common Tasks

- Domain
- server (Admin Server)
- Clusters
- Standalone Instances
- Nodes
- Applications
- Lifecycle Modules
- Monitoring Data
- Resources
 - Concurrent Resources
 - Connectors
 - JDBC
 - JDBC Resources
 - jdbc/Expenses
 - jdbc/_TimerPool
 - jdbc/_default
 - jdbc/connect
 - jdbc/myDatasource
 - jdbc/sample
 - JDBC Connection Pools
 - DerbyPool
 - ExpensesPool
 - SamplePool
 - _TimerPool
 - con_expenses_last
 - expconnPool
 - JMS Resources
 - JNDI
- ↳ Mail Center

Edit JDBC Resource

Edit an existing JDBC data source.

Load Defaults

Save Cancel

JNDI Name: jdbc/Expenses

Pool Name: ExpensesPool

Deployment Order: 100

Description:

Status: Enabled

Additional Properties (0)

Add Property Delete Properties

Select	Name	Value	Description
No items found.			

Safari File Edit View History Bookmarks Develop Window Help localhost

Outgoings/Steps.txt at m... nachkar/Expenses Welcome to NetBeans Favorites MAMP Edit JDBC Connection P... Add creative blur to phot... +

Home About... User: admin Domain: domain1 Server: localhost GlassFish™ Server Open Source Edition

Clusters

- Standalone Instances
- Nodes
- Applications
- Lifecycle Modules
- Monitoring Data
- Resources
 - Concurrent Resources
 - Connectors
 - JDBC
 - JDBC Resources
 - jdbc/Expenses
 - jdbc/_TimerPool
 - jdbc/_default
 - jdbc/connect
 - jdbc/myDatasource
 - jdbc/sample
 - JDBC Connection Pools
 - DerbyPool
 - ExpensesPool
 - SamplePool
 - _TimerPool
 - con_expenses_last
 - expconnPool
 - JMS Resources
- ↳ Mail Center

Edit JDBC Connection Pool

Modify an existing JDBC connection pool. A JDBC connection pool is a group of reusable connections for a particular database.

Load Defaults Flush Ping

General Settings

Pool Name: ExpensesPool

Resource Type: javax.sql.DataSource

Datasource Classname: com.mysql.jdbc.jdbc2.optional.MysqlConnectionPoolDataSource

Driver Classname:

Ping: Enabled

Deployment Order: 100

Description:

Pool Settings

Initial and Minimum Pool Size: 8 Connections

Minimum and initial number of connections maintained in the pool.

General Advanced Additional Properties Save Cancel

* Indicates required field



localhost

Outgoings/Steps.txt at m... nachkar/Expenses Welcome to NetBeans Favorites MAMP Edit Realm Add creative blur to phot... +

Home About...

Help

User: admin | Domain: domain1 | Server: localhost

GlassFish™ Server Open Source Edition



- Lifecycle Modules
- Monitoring Data
- Resources
- Configurations
 - default-config
 - server-config
 - Admin Service
 - Connector Service
 - EJB Container
 - HTTP Service
 - JVM Settings
 - Java Message Service
 - Logger Settings
 - Monitoring
 - Network Config
 - ORB
- Security
 - Realms
 - JdbcRealm
 - admin-realm
 - certificate
 - file
 - jdbc-realm
 - Audit Modules

Realm Name: jdbc-realm**Class Name:** com.sun.enterprise.security.auth.realm.jdbc.JDBCRealm**Properties specific to this Class****JAAS Context:** *

Identifier for the login module to use for this realm

JNDI: *

JNDI name of the JDBC resource used by this realm

User Table: *

Name of the database table that contains the list of authorized users for this realm

User Name Column: *

Name of the column in the user table that contains the list of user names

Password Column: *

Name of the column in the user table that contains the user passwords

Group Table: *

Name of the database table that contains the list of groups for this realm

Group Table User Name Column:

Name of the column in the user group table that contains the list of groups for this realm

Group Name Column: *

Name of the column in the group table that contains the list of group names

Password Encryption Algorithm: *

This denotes the algorithm for encrypting the passwords in the database. It is a security risk to leave this field empty.



Modification in web.xml

The figure shows three screenshots of the NetBeans IDE interface, illustrating the configuration of security roles and constraints in a web application.

Screenshot 1 (Top Left): Login Configuration

- View, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help, Mon 10:47 PM, nachkar, Q Search (⌘+I)
- Start Page, web.xml, persistence.xml, glassfish-web.xml, List.xhtml, List.xhtml, Login.xhtml
- Source, General, Servlets, Filters, Pages, References, Security, History, Security Roles
- Login Configuration**
 - None
 - Digest
 - Client Certificate
 - Basic
 - Form**
- Form Login Page: /faces/Login.xhtml
- Form Error Page: /faces/loginerror.xhtml
- Realm Name: jdbc-realm

Screenshot 2 (Top Right): Security Roles

- View, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help, Mon 10:47 PM, nachkar, Q Search (⌘+I)
- Start Page, web.xml, persistence.xml, glassfish-web.xml, List.xhtml, List.xhtml, Login.xhtml
- Source, General, Servlets, Filters, Pages, References, Security, History, Security Roles
- Realm Name: jdbc-realm
- Security Roles**

Role Name	Description
1	admin
0	users

Add..., Edit..., Remove
- Security Constraints**
 - 1

Add Security Constraint, Remove

Screenshot 3 (Bottom Left): Security Constraint Details

- View, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help, Mon 10:47 PM, nachkar, Q Search (⌘+I)
- Start Page, web.xml, persistence.xml, glassfish-web.xml, List.xhtml, List.xhtml, Login.xhtml
- Source, General, Servlets, Filters, Pages, References, Security, History, Security Roles
- 1
- Display Name: 1
- Web Resource Collection:

Name	URL Pattern	HTTP Method	Description
1	/faces/categories/*, /faces/use...		admin

Add..., Edit..., Remove
- Enable Authentication Constraint**
 - Description: admin
 - Role Name(s): 1
- Enable User Data Constraint**
 - Description:
- Transport Guarantee: NONE

iew View Navigate Source Refactor Run Debug Profile Team Tools Window Help Mon 10:47 PM nachkar

expenses - NetBeans IDE 8.0.2

jdbcReports

Start Page web.xml persistence.xml glassfish-web.xml List.xhtml List.xhtml Login.xhtml

General Servlets Security Web Services Messaging Environment XML History Security Role Map

0 Remove

Security Role Name : 0

Principals Assigned to this Role

Principal Name	Class Name

Add Principal... Edit Principal... Remove Principal(s)

Groups Assigned to this Role

Group Name
0

Add Group... Edit Group... Remove Group(s)

+ 1 Remove

```
143
144
145     blic String goToCategories() throws IOException
146     {
147         return "/categories/List.xhtml";
148     }
149
150     blic void exportPDF() throws JRException, ClassNotFoundException, SQLException
151     {
152         Class.forName("com.mysql.jdbc.Driver");
153         Connection conect = DriverManager.getConnection("jdbc:mysql://localhost:8889/Expenses","root","root");
154
155         JasperReport jasperReport;
156         JasperPrint jasperPrint;
157         jasperReport = JasperCompileManager.compileReport("/Users/noelachkar/NetBeansProjects/expenses/web/operati
158         jasperPrint = JasperFillManager.fillReport(
159             jasperReport, new HashMap(), conect);
160         JasperExportManager.exportReportToPdfFile(jasperPrint, "/Users/noelachkar/desktop/simple_report.pdf");
161     }
162
163     blic void update()
164     {
165         persist(PersistAction.UPDATE, ResourceBundle.getBundle("/Bundle").getString("OperationsUpdated"));
166     }

```

iReport ExportToPDF function to extract the report and save it to the desktop