

# Steps To Work With J2EE and mysql

إعداد: د. أبي سلّوم

# set java\_home

- JAVA\_HOME: not used by Java itself. Some third-party programs (for example Apache Tomcat, GlassFish,.....)use it.



# Cont.

- In CMD Write:
  - set JAVA\_HOME=path of JDK
  - echo %JAVA\_HOME%

C:\ Administrator: موجه الأوامر



```
C:\Windows\system32>set java_home=C:\Program Files\Java\jdk1.8.0_161
```

```
C:\Windows\system32>echo %java_home%
```

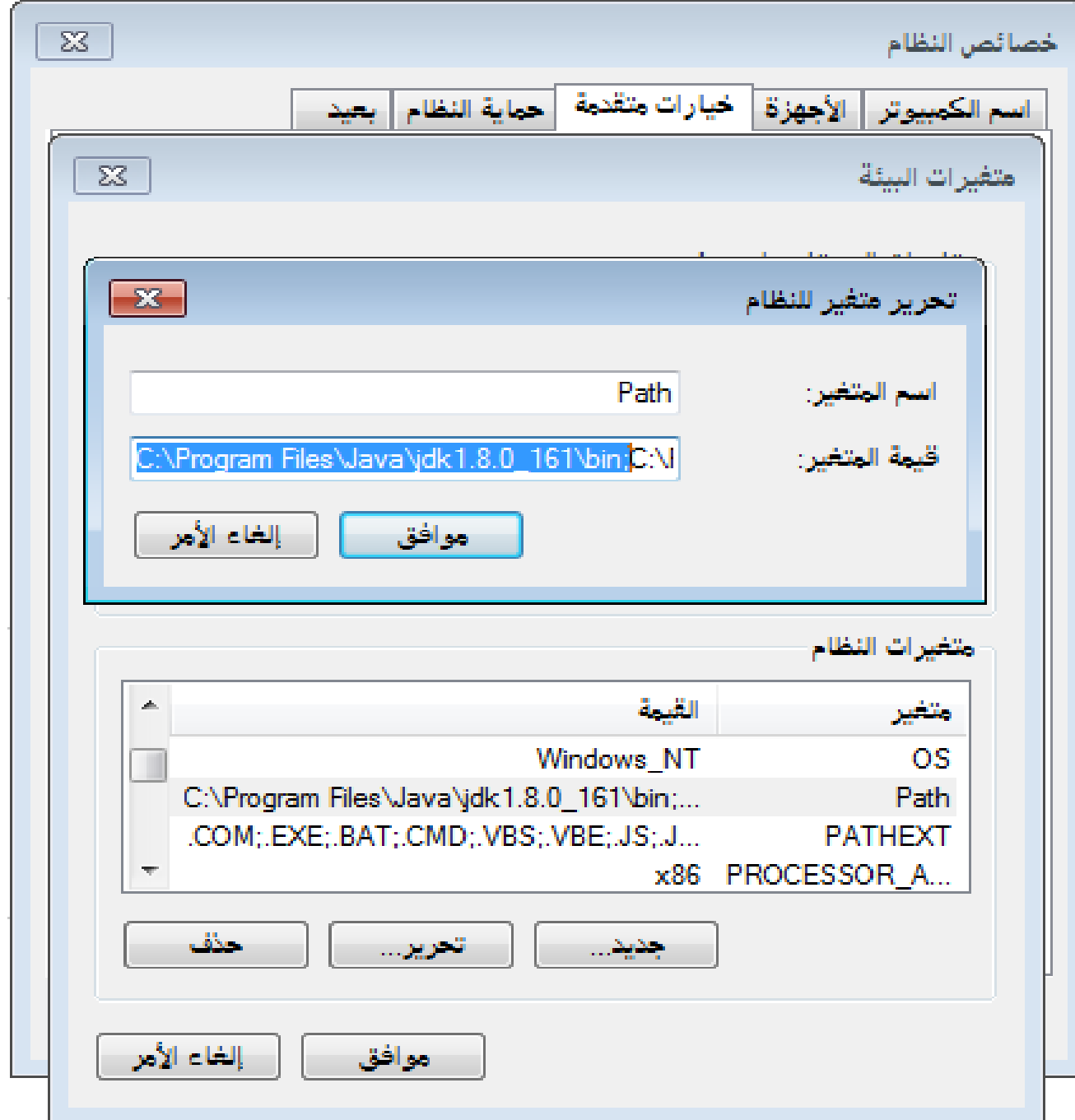
```
C:\Program Files\Java\jdk1.8.0_161
```

```
C:\Windows\system32>
```

# Include JDK's "bin" Directory in the PATH

PATH is an environment variable used by the operating system (Windows, Linux) where it will look for native executable programs to run.

- Variable name : PATH
- Variable value : path to JDK\bin;*[do not delete exiting entries...]*;
- Verify the JDK Installation
  - prompt> path



# MySQL (initilize-start)

- Make dirctory myWebProject in C dirve.
- unzip mysql-5.7.21-win32 in myWebProject folder .
- Rename the unzipped folder to mysql.
- Unzip mysql-connector-java-5.1.{xx}.zip in myWebProject folder and put the bin file in mysql\bin



# Cont.

- Open cmd
- Change directory to the MySQL's binary directory
  - `cd \myWebProject\mysql\bin`
- Initialize the database.
  - `Mysqld --initialize --console`
  - Install the missing .dll files
  - This will Create a root user with random password. Show the messages on console
  - [Note] A temporary password is generated for root@localhost: xxxxxxxx (save this password(without space and with; ) in outer file because we will need it later )

# Cont.

- Open new cmd
- Start the "Server"
  - `cd \myWebProject\mysql\bin`
  - `mysqld --console`
  - [Note] mysqld: **ready for connections**.notice it in slide 17  
port: 3306 MySQL Community Server (GPL)
- Shutdown Server (CTL+C)(**do not stop server now but in the last step**)

# Cont.

- Open new cmd
- Start a "Client"

Start a client as superuser "root" (-u), and prompt for password (-p)

- `cd \myWebProject\mysql\bin`
- `mysql -u root -p`
- `mysql>`

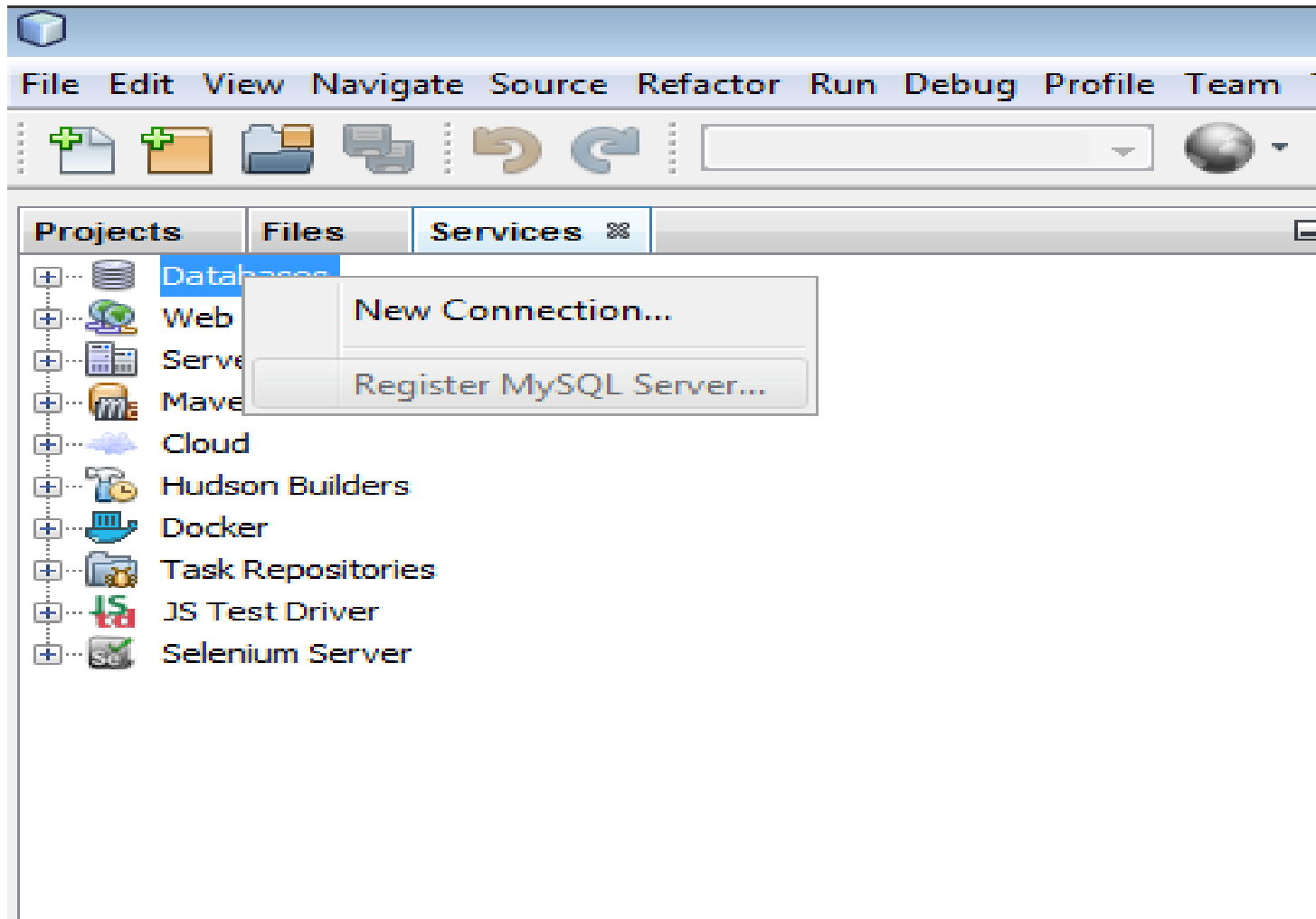
- Enter password: // Enter the root's password set during installation (the password that you save in outer file).

# Cont.

- Change the Password for the Superuser "root"
  - `mysql> alter user 'root'@'localhost' identified by 'xxxx';`
  - Note: replace xxxx with your chosen password(1234) enclosed by a pair of single-quotes.
  - `mysql> quit`
- Close the cmd for client
- Re-Start a Client as "root" with the New Password
  - Open new cmd
  - `cd \myWebProject\mysql\bin`
  - `mysql -u root -p`

# Configuring MySQL Server Properties

- Right-click the Databases node in the Services window in netbeans and choose Register MySQL Server.



# MySQL Server Properties

Basic Properties

Admin Properties

Server host name:

localhost

Server port number:

3306

Administrator user name:

root

Administrator password:

\*\*\*\*

☐ Save password (see Help for security risks)

Help

Cancel

OK

# Admin Properties tab

- location of your MySQL Administration application
  - mysqladmin in the bin folder
- location of the MySQL start command.
  - mysqld in the bin folder
- location of the MySQL stop command.
  - mysqladmin in the bin folder
- in the Arguments field, type -u root stop



# MySQL Server Properties

Basic Properties

Admin Properties

Path/URL to admin tool:

[Browse...](#)

Arguments:

Path to start command:

[Browse...](#)

Arguments:

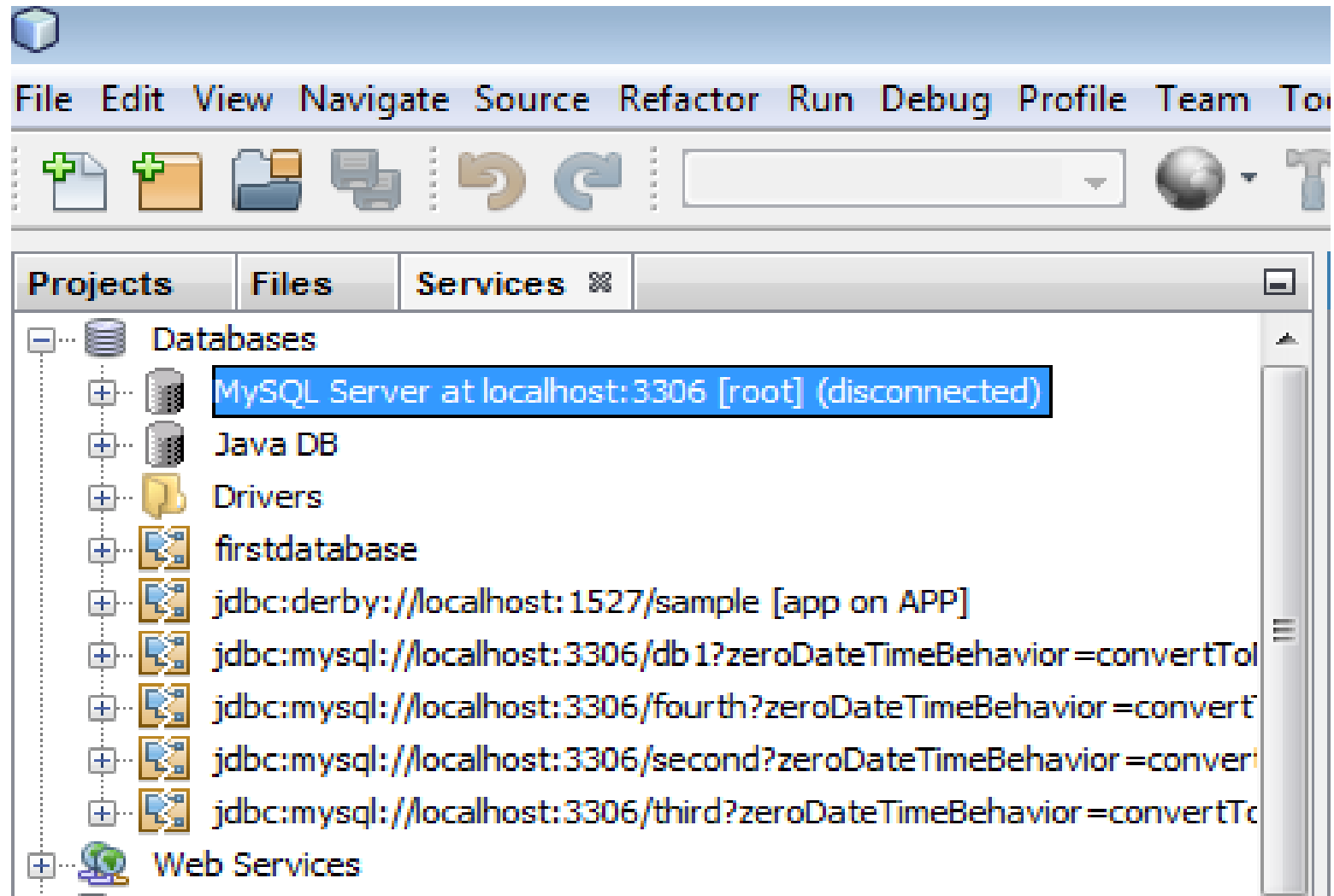
Path to stop command:

[Browse...](#)

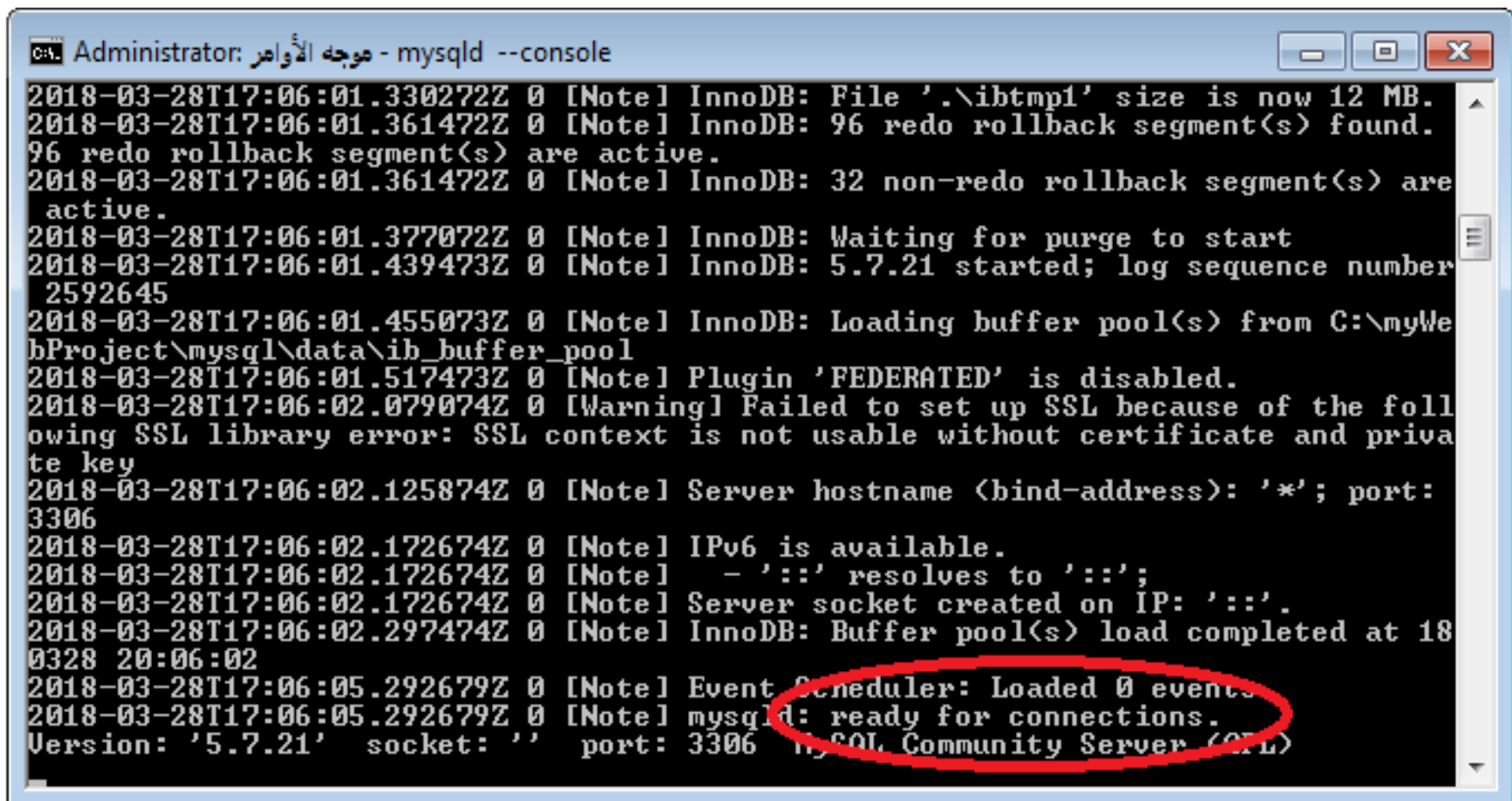
Arguments:



- Show that mysql server is disconnect

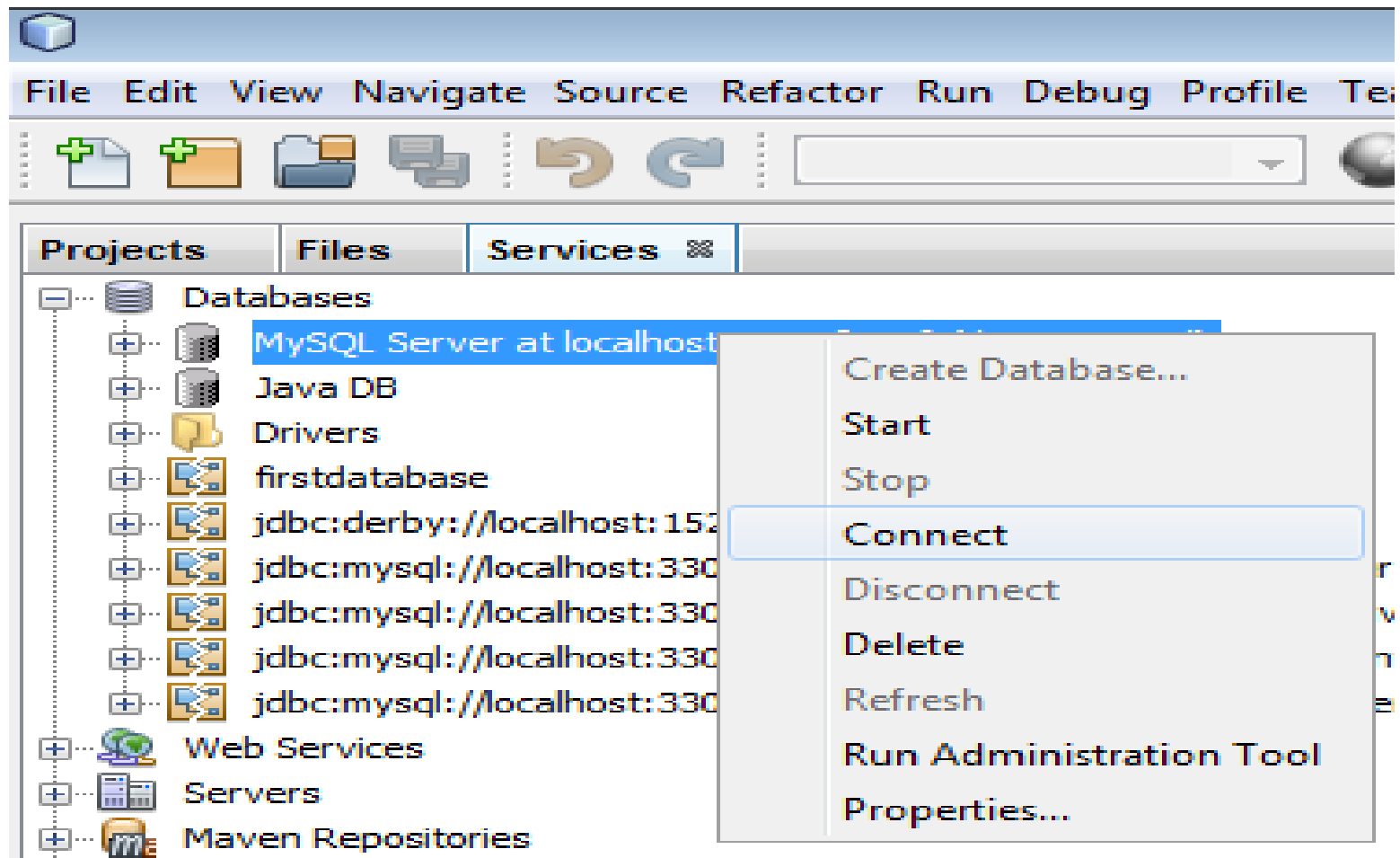


- confirm that the MySQL Database Server is running on your machine. From slide



```
C:\> Administrator: موجه الأوامر - mysql --console
2018-03-28T17:06:01.330272Z 0 [Note] InnoDB: File './ibtmp1' size is now 12 MB.
2018-03-28T17:06:01.361472Z 0 [Note] InnoDB: 96 redo rollback segment(s) found.
96 redo rollback segment(s) are active.
2018-03-28T17:06:01.361472Z 0 [Note] InnoDB: 32 non-redo rollback segment(s) are
active.
2018-03-28T17:06:01.377072Z 0 [Note] InnoDB: Waiting for purge to start
2018-03-28T17:06:01.439473Z 0 [Note] InnoDB: 5.7.21 started; log sequence number
2592645
2018-03-28T17:06:01.455073Z 0 [Note] InnoDB: Loading buffer pool(s) from C:\myWe
bProject\mysql\data\ib_buffer_pool
2018-03-28T17:06:01.517473Z 0 [Note] Plugin 'FEDERATED' is disabled.
2018-03-28T17:06:02.079074Z 0 [Warning] Failed to set up SSL because of the foll
owing SSL library error: SSL context is not usable without certificate and priva
te key
2018-03-28T17:06:02.125874Z 0 [Note] Server hostname (bind-address): '*'; port:
3306
2018-03-28T17:06:02.172674Z 0 [Note] IPv6 is available.
2018-03-28T17:06:02.172674Z 0 [Note] - '::' resolves to '::';
2018-03-28T17:06:02.172674Z 0 [Note] Server socket created on IP: '::'.
2018-03-28T17:06:02.297474Z 0 [Note] InnoDB: Buffer pool(s) load completed at 18
0328 20:06:02
2018-03-28T17:06:05.292679Z 0 [Note] Event Scheduler: Loaded 0 events
2018-03-28T17:06:05.292679Z 0 [Note] mysqld: ready for connections.
Version: '5.7.21' socket: '' port: 3306 MySQL Community Server (GPL)
```

- right-click the Databases > MySQL Server node in the Services window and choose Connect





File Edit View Navigate Source Refactor Run Debug Profile Team To



Projects

Files

Services

... Databases

... MySQL Server at localhost:3306 [root]

... Java DB

... Drivers

... firstdatabase

... jdbc:derby://localhost:1527/sample [app on APP]

... jdbc:mysql://localhost:3306/db 1?zeroDateTimeBehavior=convertToNull

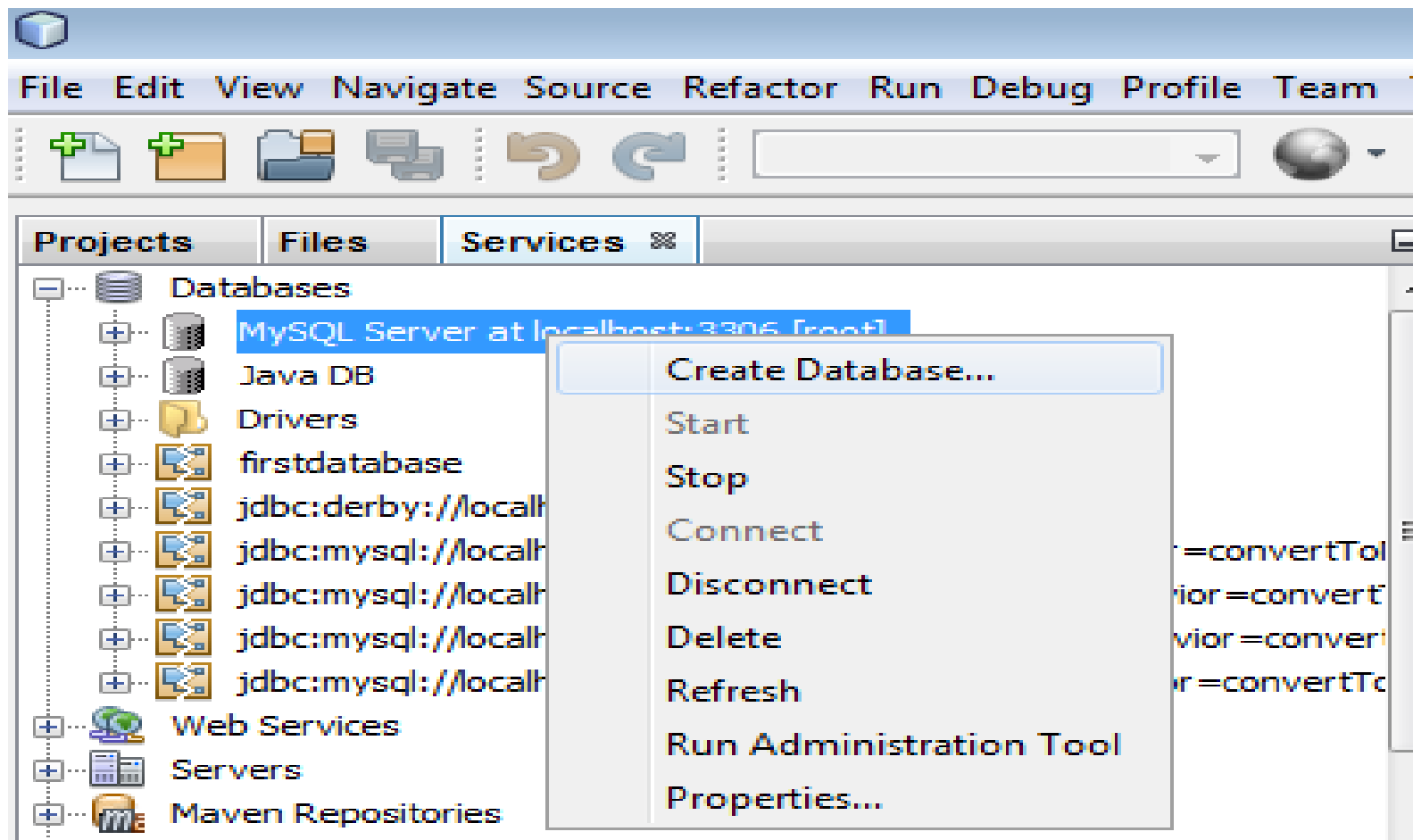
... jdbc:mysql://localhost:3306/fourth?zeroDateTimeBehavior=convertToNull

... jdbc:mysql://localhost:3306/second?zeroDateTimeBehavior=convertToNull

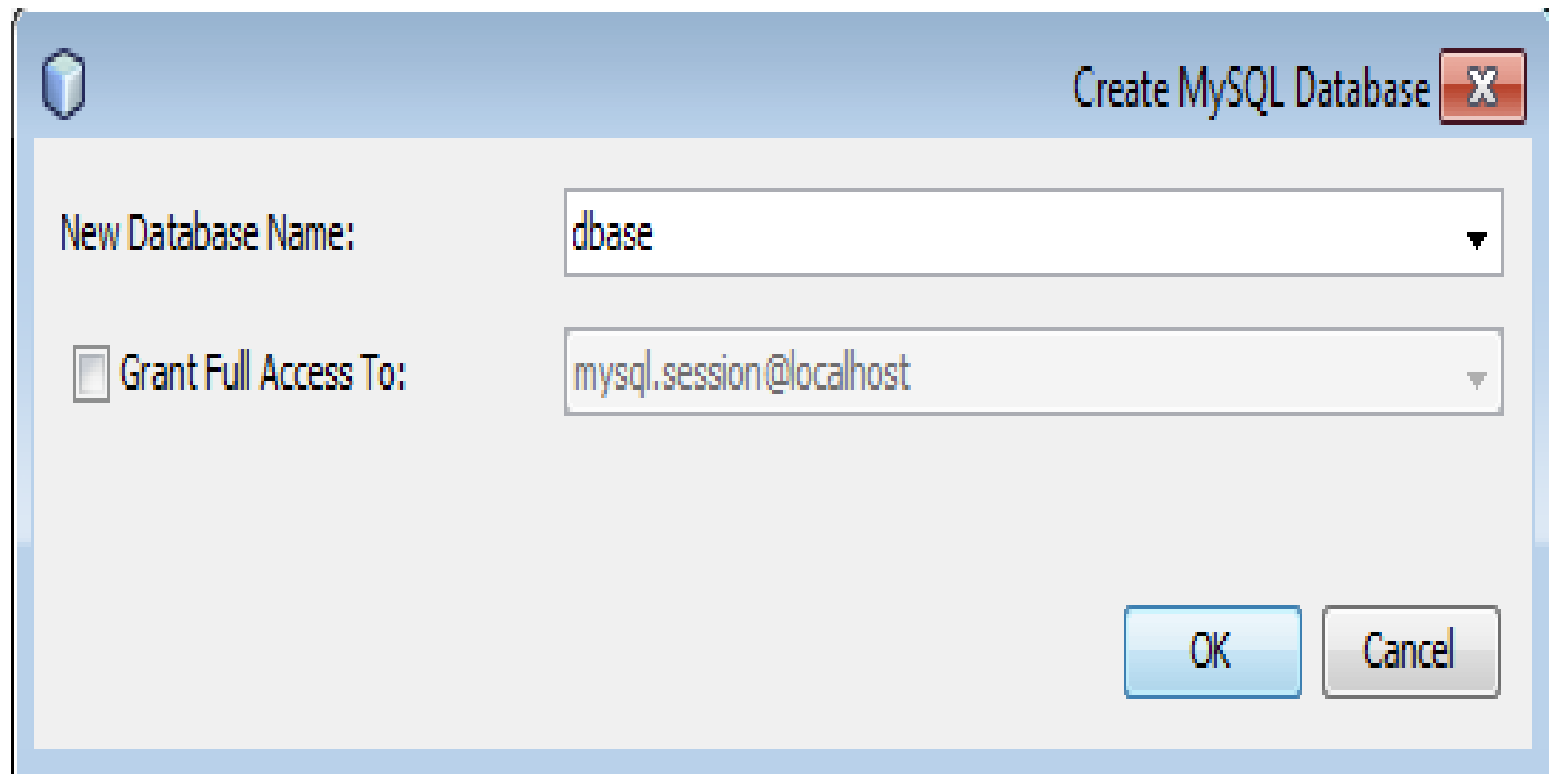
... jdbc:mysql://localhost:3306/third?zeroDateTimeBehavior=convertToNull



- right-click the Databases > MySQL Server and choose create database.



- Enter the name of data base



A screenshot of a 'Create MySQL Database' dialog box. The dialog has a blue title bar with a MySQL logo icon on the left and the text 'Create MySQL Database' followed by a red close button with a white 'X' on the right. The main area is light gray. It contains two labels with corresponding text boxes: 'New Database Name:' followed by a text box containing 'dbase', and 'Grant Full Access To:' followed by a text box containing 'mysql.session@localhost'. Both text boxes have a small downward arrow on the right side. At the bottom right, there are two buttons: 'OK' and 'Cancel'.

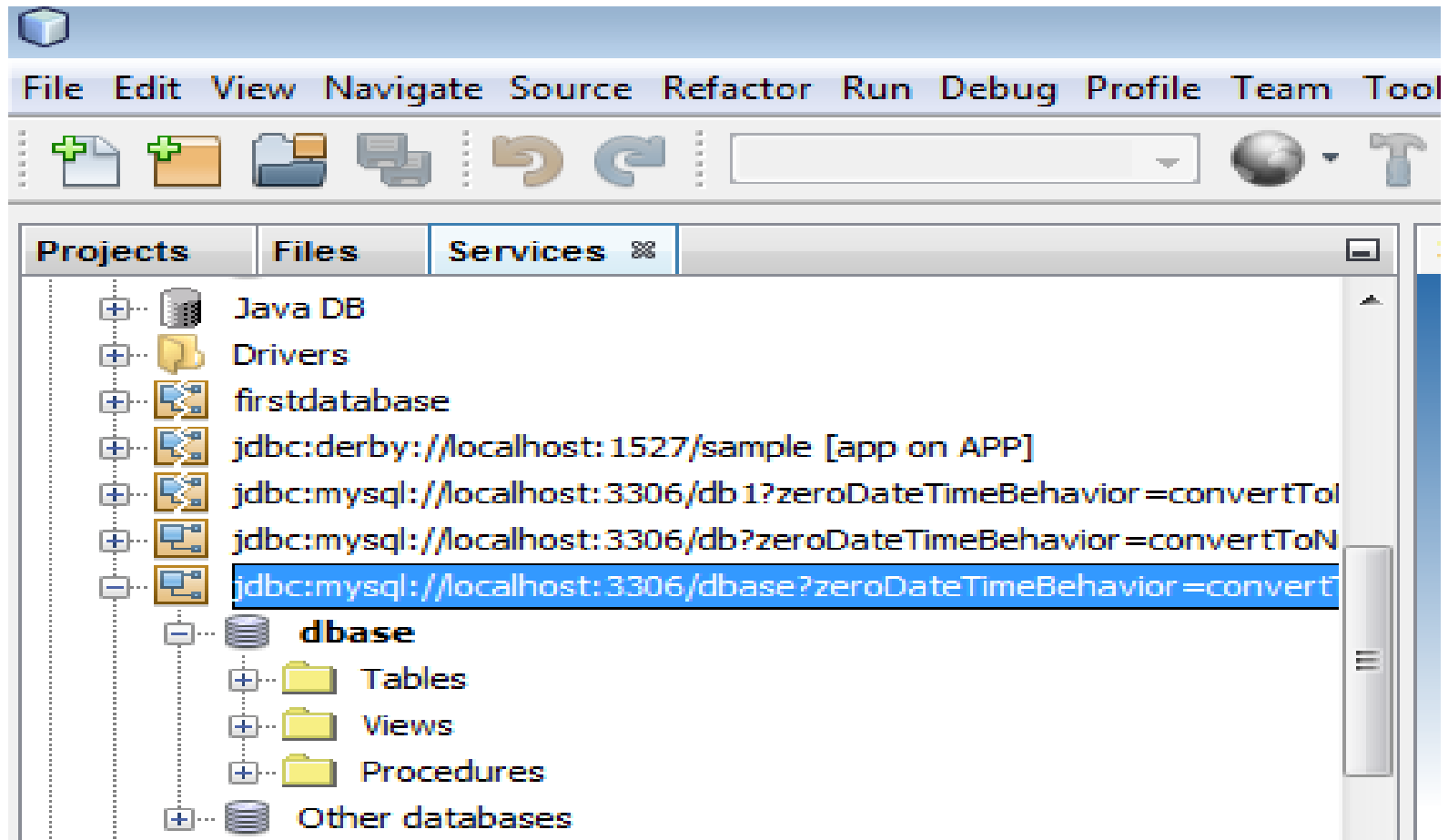
Create MySQL Database

New Database Name:

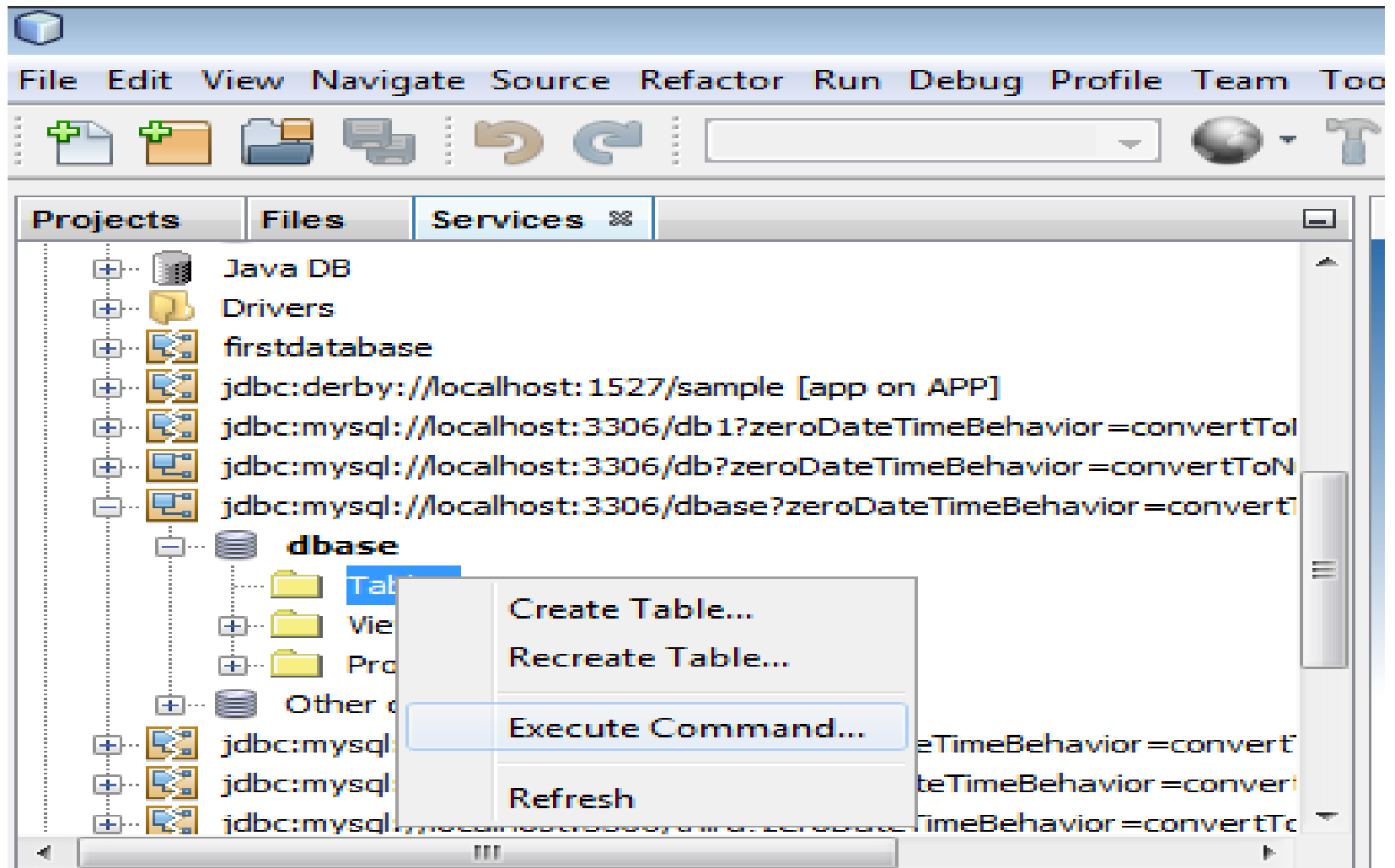
☐ Grant Full Access To:

OK Cancel

- This will add database and database connection

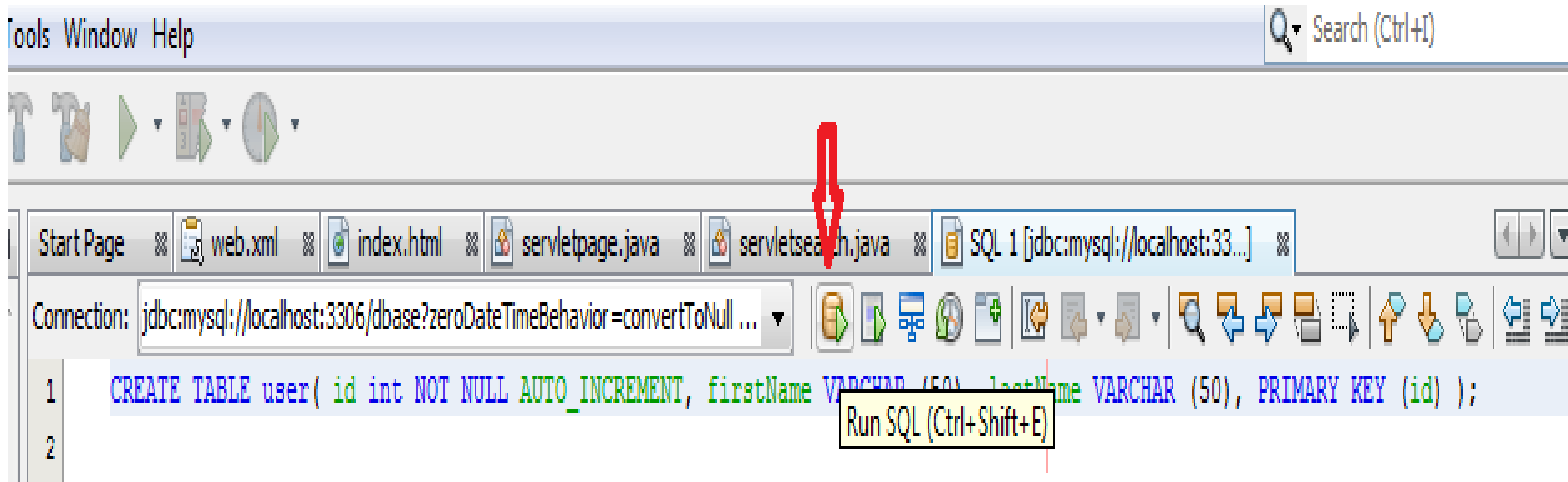


- Create table user in dbase





- Write query and press Run SQL



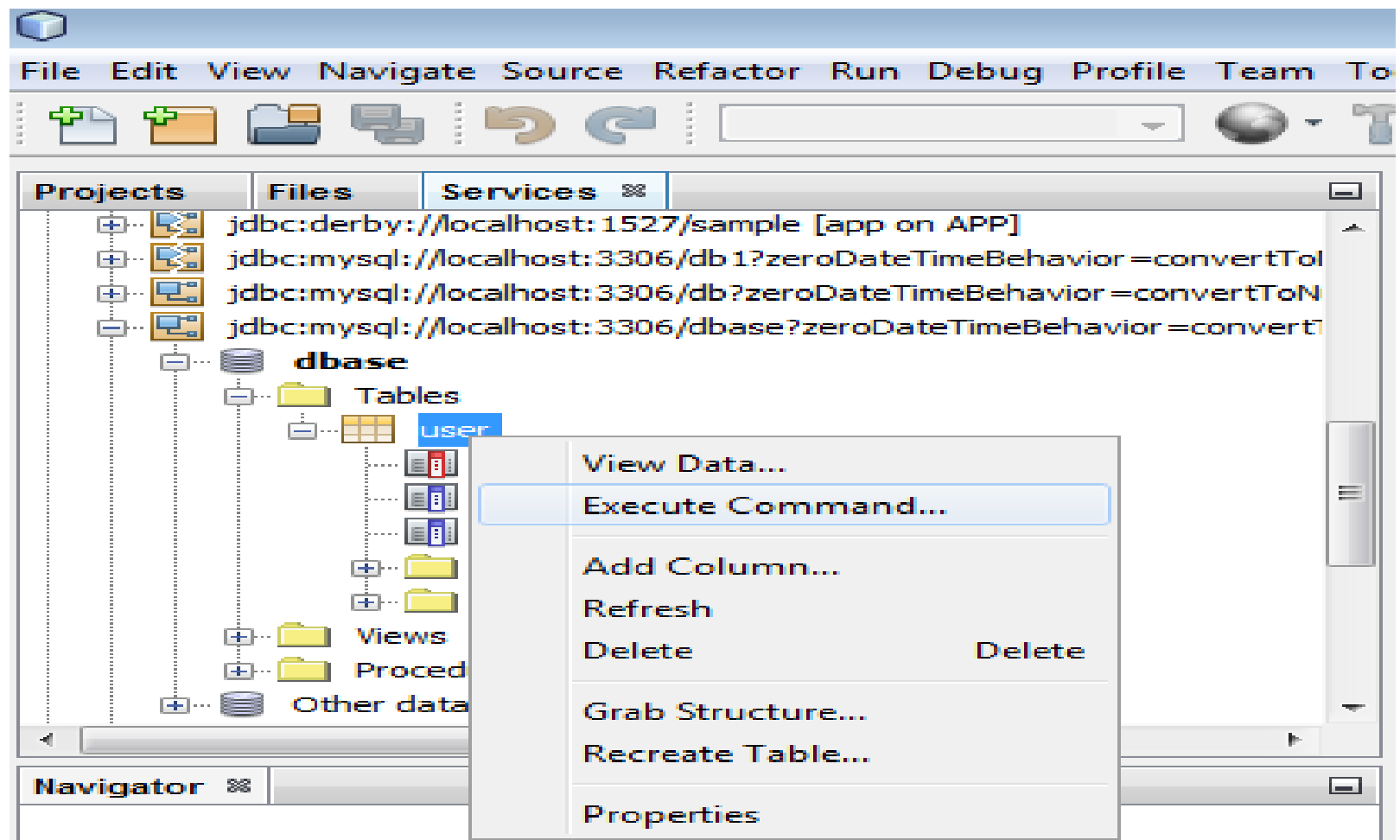


File Edit View Navigate Source Refactor Run Debug Profile Team Tools

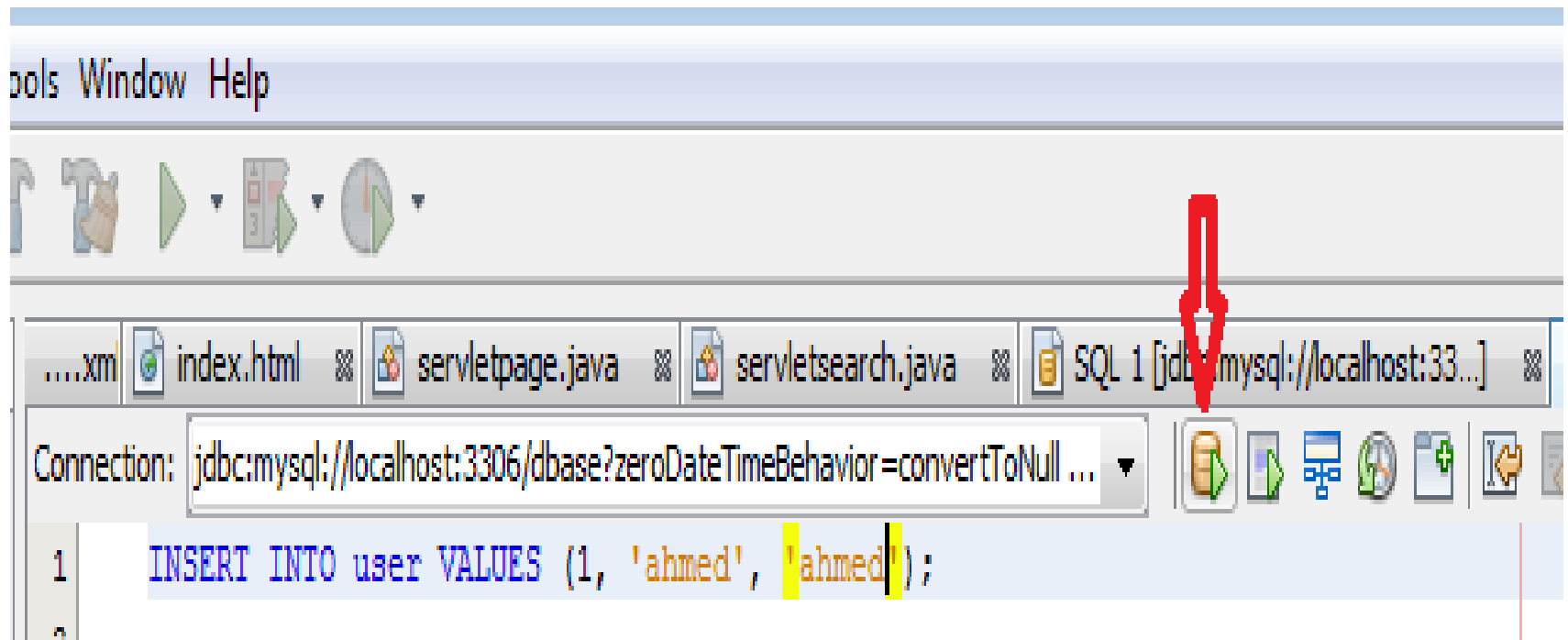


| Projects | Files | Services  |
|----------|-------|---|
|          |       | jdbc:derby://localhost:1527/sample [app on APP]   |
|          |       | jdbc:mysql://localhost:3306/db1?zeroDateTimeBehavior=convertToNull  |
|          |       | jdbc:mysql://localhost:3306/db?zeroDateTimeBehavior=convertToNull   |
|          |       | jdbc:mysql://localhost:3306/dbase?zeroDateTimeBehavior=convertToNull  |
|          |       | <b>dbase</b> <ul style="list-style-type: none"><li><b>Tables</b><ul style="list-style-type: none"><li><b>user</b><ul style="list-style-type: none"><li>id</li><li>firstName</li><li>lastName</li><li>Indexes</li><li>Foreign Keys</li></ul></li></ul></li></ul> |

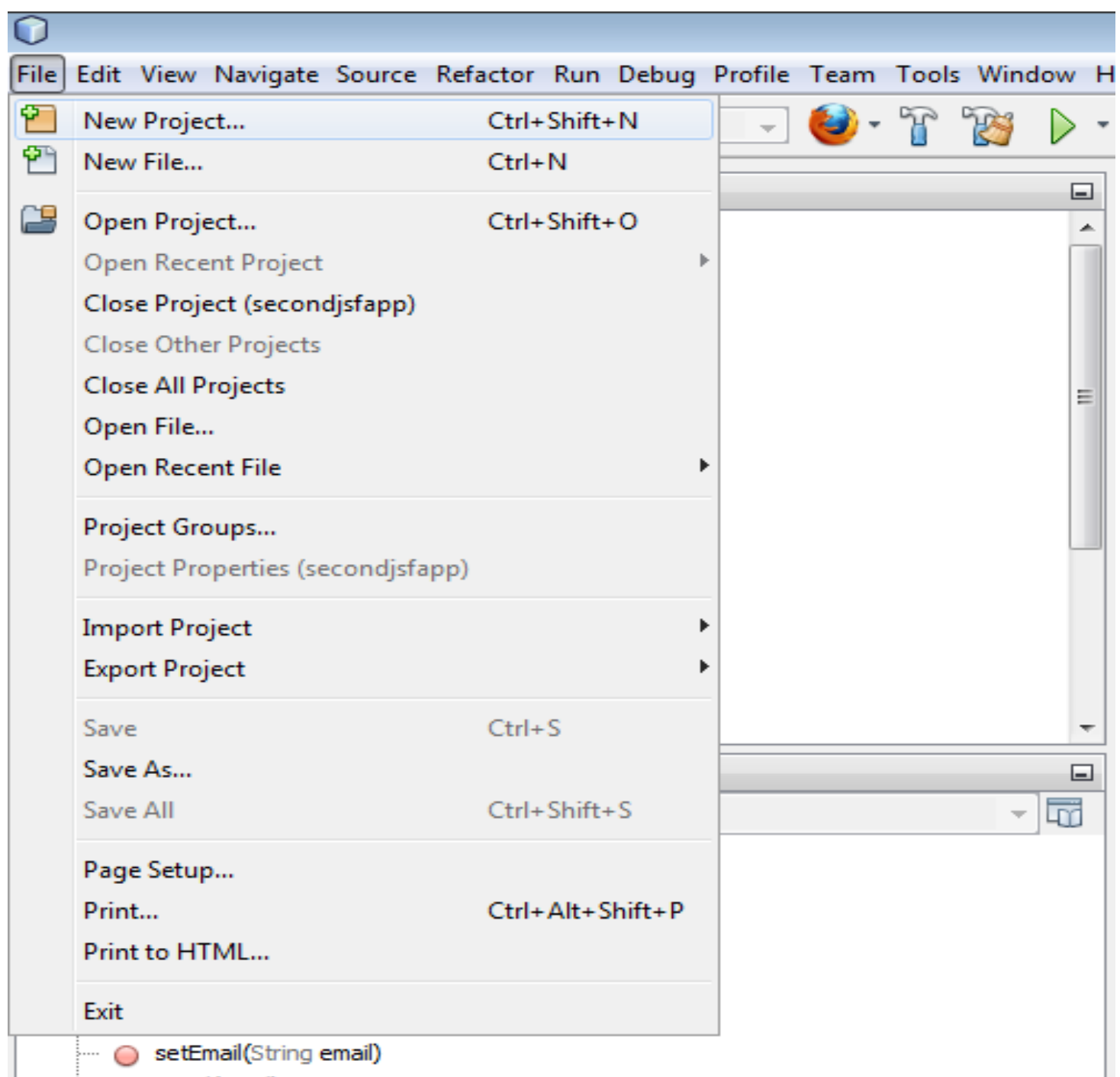
- Insert data into table



- Write query and press Run SQL



**J2EE application**



## Steps

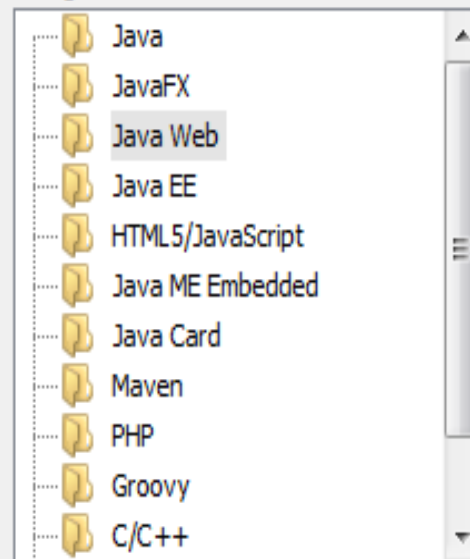
1. Choose Project
2. ...

## Choose Project

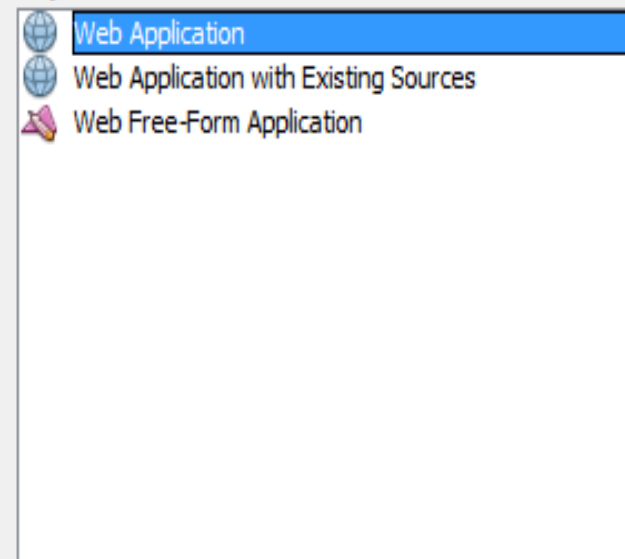


Filter:

### Categories:



### Projects:



### Description:

**Creates an empty Web application** in a standard IDE project. A standard project uses an **IDE-generated build script** to build, run, and debug your project.

&lt; Back

Next &gt;

Finish

Cancel

Help



## Steps

1. Choose Project
- 2. Name and Location**
3. Server and Settings
4. Frameworks

## Name and Location

Project Name:

Project Location:

[Browse...](#)

Project Folder:

☐ Use Dedicated Folder for Storing Libraries

Libraries Folder:

[Browse...](#)

Different users and projects can share the same compilation libraries  
(see Help for details).

< Back

Next >

Finish

Cancel

Help





### Steps

1. Choose Project
2. Name and Location
3. **Server and Settings**
4. Frameworks

### Server and Settings

Add to Enterprise Application:

Server:

Add...

Java EE Version:

Context Path:



same name of the project

< Back

Next >

Finish

Cancel

Help

## Steps

1. Choose Project
2. Name and Location
3. Server and Settings
4. **Frameworks**

## Frameworks

Select the frameworks you want to use in your web application.

- ☐ Spring Web MVC
- ☒ JavaServer Faces
- ☐ Struts 1.3.10
- ☐ Hibernate 4.3.1

## JavaServer Faces Configuration

Libraries Configuration Components


☐ Server Library: JSF 2.2

☒ Registered Libraries: JSF 2.2

☐ Create New Library

JSF Folder or JAR:

Library Name:



< Back

Next >

Finish

Cancel

Help



## Steps

1. Choose Project
2. Name and Location
3. Server and Settings
- 4. Frameworks**

## Frameworks

Select the frameworks you want to use in your web application.

- ☐ Spring Web MVC
- ☒ JavaServer Faces
- ☐ Struts 1.3.10
- ☐ Hibernate 4.3.1

### JavaServer Faces Configuration

Libraries Configuration Components

JSF Servlet URL Pattern:

Preferred Page Language:

< Back

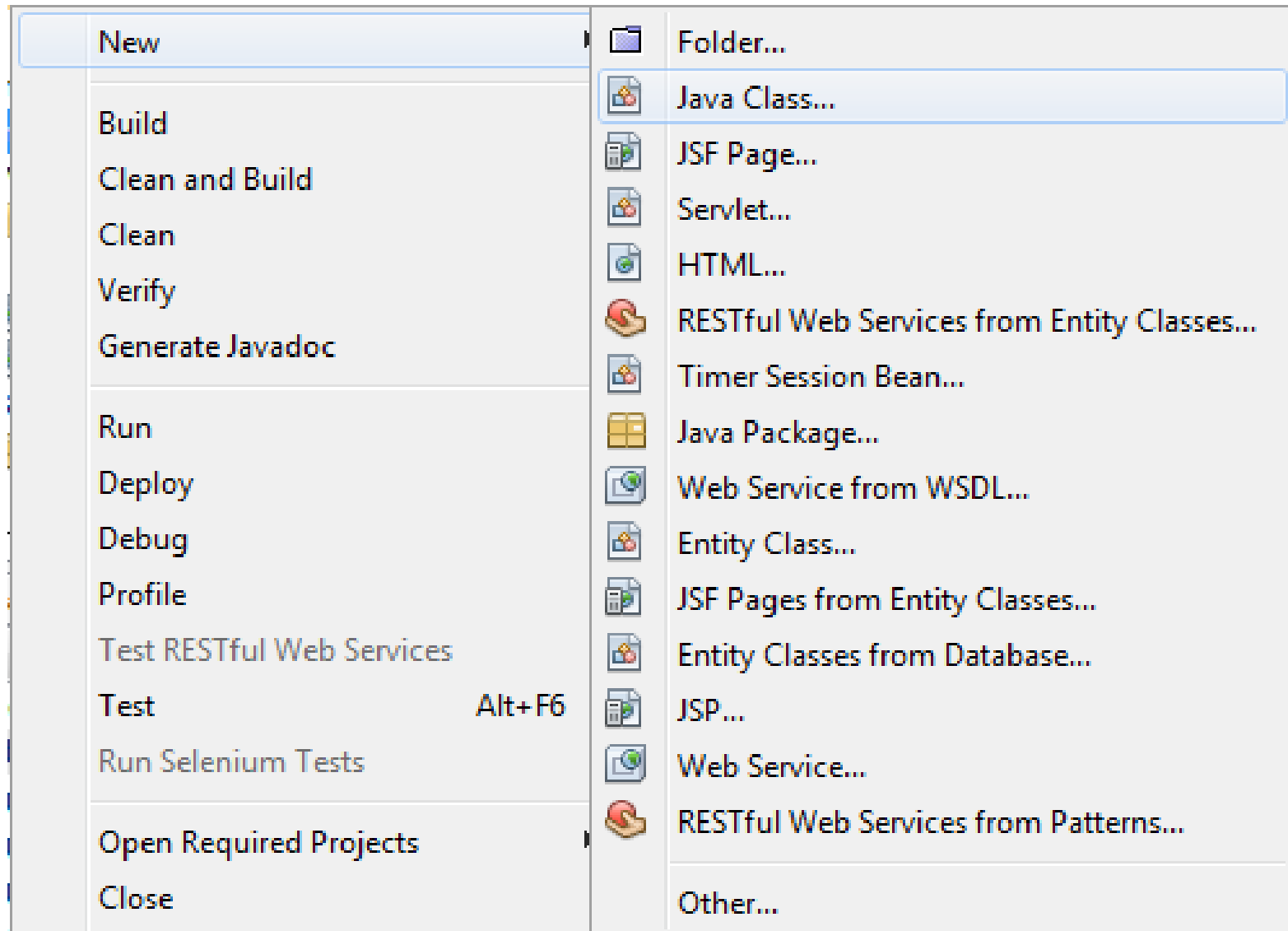
Next >

Finish

Cancel

Help

# Create Managed Bean





## Steps

1. Choose File Type
2. **Name and Location**

enter class name

java class put in the  
source package

## Name and Location

Class Name:

Project:

Location:

Package:

Created File:



Warning: It is highly recommended that you do not place Java classes in the default package.

< Back

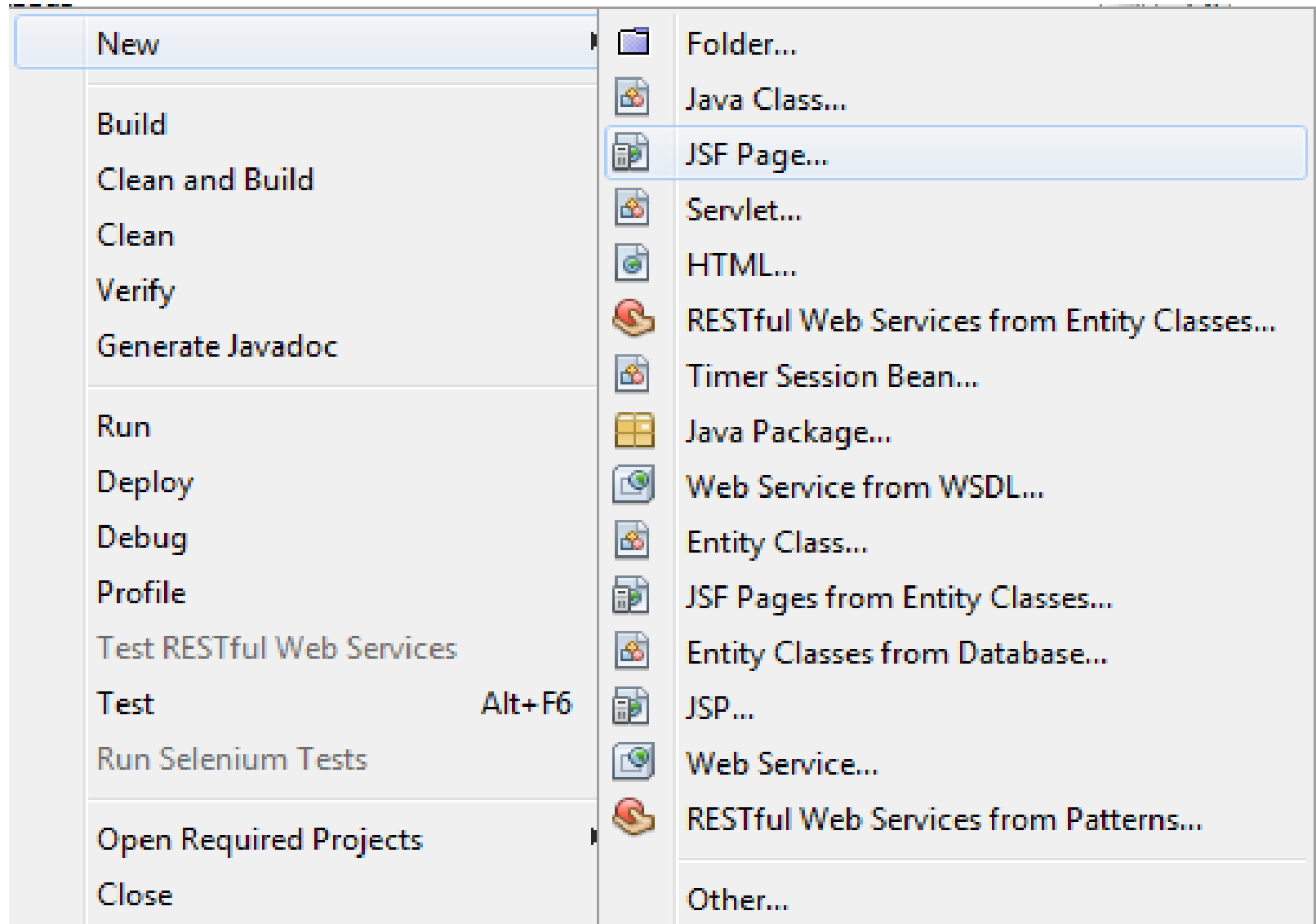
Next >

Finish

Cancel

Help

# Creat JSF page(.xhtml)





## Steps

1. Choose File Type
2. **Name and Location**

xhtml page put in  
the web pages



## Name and Location

File Name:

Project:

Location:

Folder:

[Browse...](#)

Created File:

### Options:

☒ Facelets

☐ JSP File (Standard Syntax) ☐ Create as a JSP Segment

### Description:

Facelets syntax

< Back

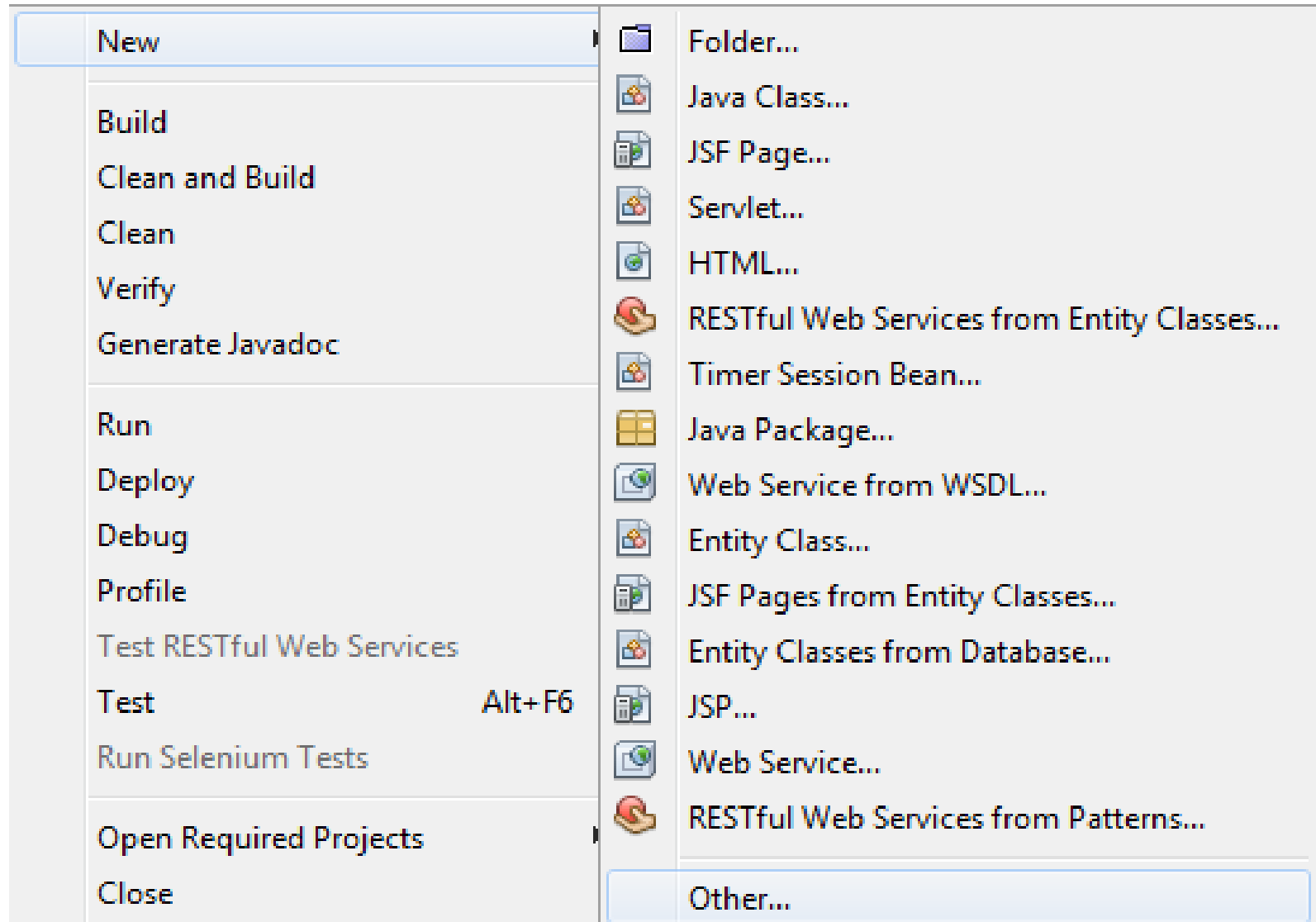
Next >

Finish

Cancel

Help

If JSF page dose not appear in the previous interface follow the following:







## Steps

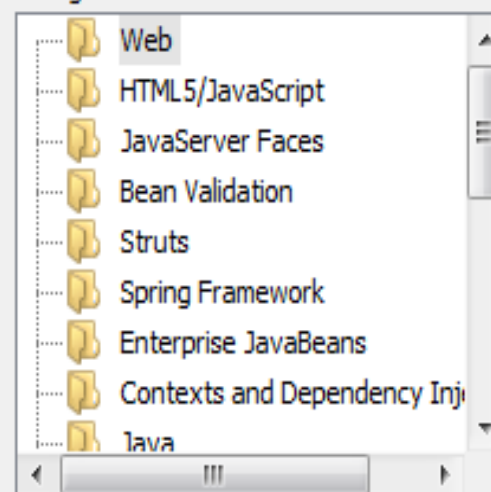
1. Choose File Type
2. ...

## Choose File Type

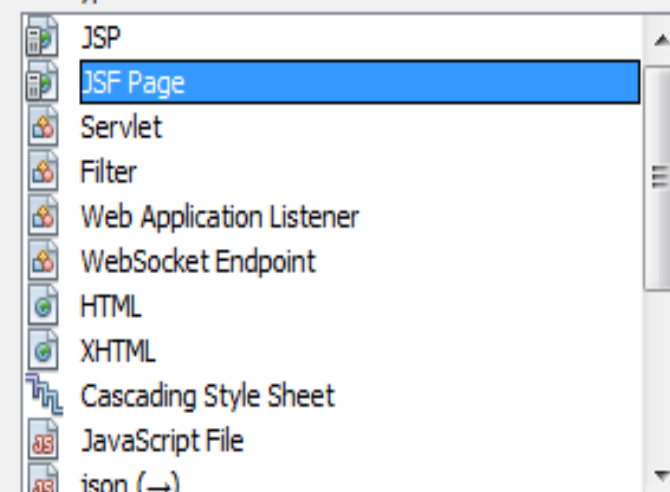
Project: secondjsfapp

Filter:

### Categories:



### File Types:



### Description:

Creates new Facelets file or JSP file (JSP fragment).

< Back

Next >

Finish

Cancel

Help



## Steps

1. Choose File Type
2. **Name and Location**

xhtml page put in  
the web pages



## Name and Location

File Name:

Project:

Location:

Folder:

Created File:

### Options:

☒ Facelets

☐ JSP File (Standard Syntax) ☐ Create as a JSP Segment

### Description:

Facelets syntax

< Back

Next >

Finish

Cancel

Help

# Deploy the application to GlassFish

- Right click the project and click Build. It builds the web application.
- Right click the project and click Deploy. It deploys the web application to GlassFish server.

- Open the browser and call welcome page on the server(index.html)
- <http://localhost:8080/hello/index.html>
  - /hello is the context path(slide 32)
  - /index.html is welcome file(slide 37)

**Good luck**