

# JMETER - DATABASE TEST PLAN

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In this chapter, we will see how to create a simple test plan to test the database server. For our test purpose we use the MYSQL database server. You can use any other database for testing. For installation and table creation in MYSQL please refer [MYSQL Tutorial](#).

Once MYSQL is installed, follow the steps below to setup the database –

- Create a database with name "tutorial".
- Create a table *tutorials\_tbl*.
- Insert records into *tutorials\_tbl* as shown below –

```
mysql> use TUTORIALS;

Database changed

mysql> INSERT INTO tutorials_tbl
->(tutorial_title, tutorial_author, submission_date)
->VALUES
->("Learn PHP", "John Poul", NOW());

Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tutorials_tbl
->(tutorial_title, tutorial_author, submission_date)
->VALUES
->("Learn MySQL", "Abdul S", NOW());

Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO tutorials_tbl
->(tutorial_title, tutorial_author, submission_date)
->VALUES
->("JAVA Tutorial", "Sanjay", '2007-05-06');

Query OK, 1 row affected (0.01 sec)

mysql>
```

- Copy the appropriate JDBC driver to **/home/manisha/apache-jmeter-2.9/lib**.

## Create JMeter Test Plan

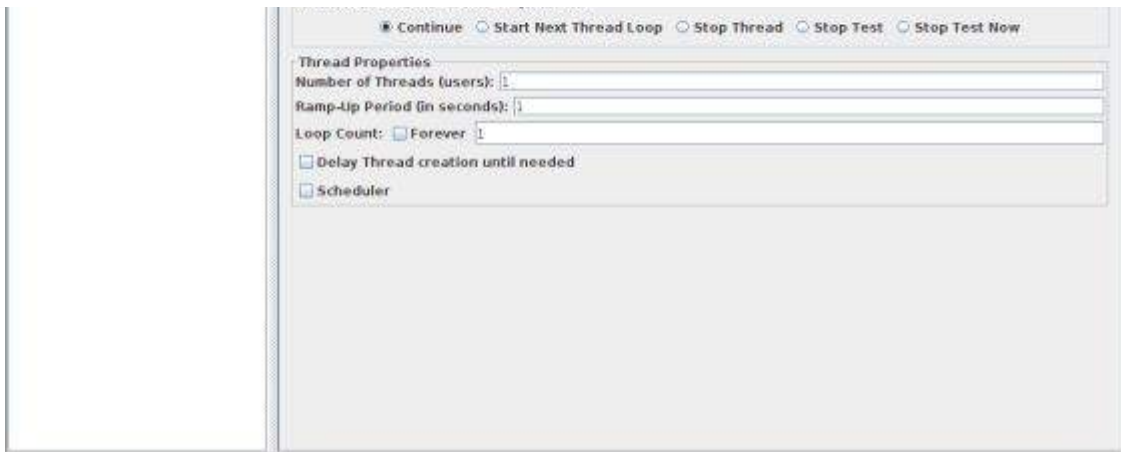
Let us start the JMeter from **/home/manisha/apache-jmeter-2.9/bin/jmeter.sh**.

## Add Users

To create a Thread group,

- Right-click on Test Plan.
- Select Add > Threads *Users* > Thread Group.
- Thus, thread group gets added under the Test Plan node.
- Rename this Thread Group as *JDBC Users*.





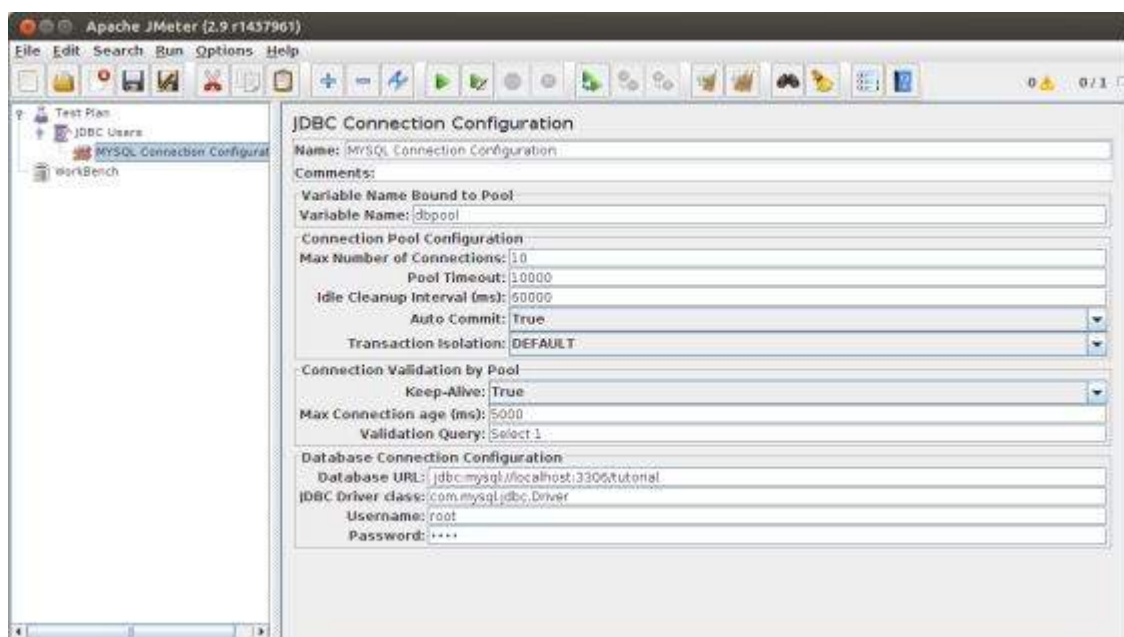
We will not change the default properties of the Thread Group.

## Adding JDBC Requests

Now that we defined our users, it is time to define the tasks that they will be performing. In this section, specify the JDBC requests to perform.

- Right-click on the JDBC Users element.
- Select **Add > Config Element > JDBC Connection Configuration**.
- Set up the following fields *weareusingMySQLdatabasecalledtutorial* –
  - Variable name bound to pool. This needs to identify the configuration uniquely. It is used by the JDBC Sampler to identify the configuration to be used. We have named it as *test*.
  - Database URL – `jdbc:mysql://localhost:3306/tutorial`.
  - JDBC Driver class: `com.mysql.jdbc.Driver`.
  - Username: `root`.
  - Password: `password for root`.

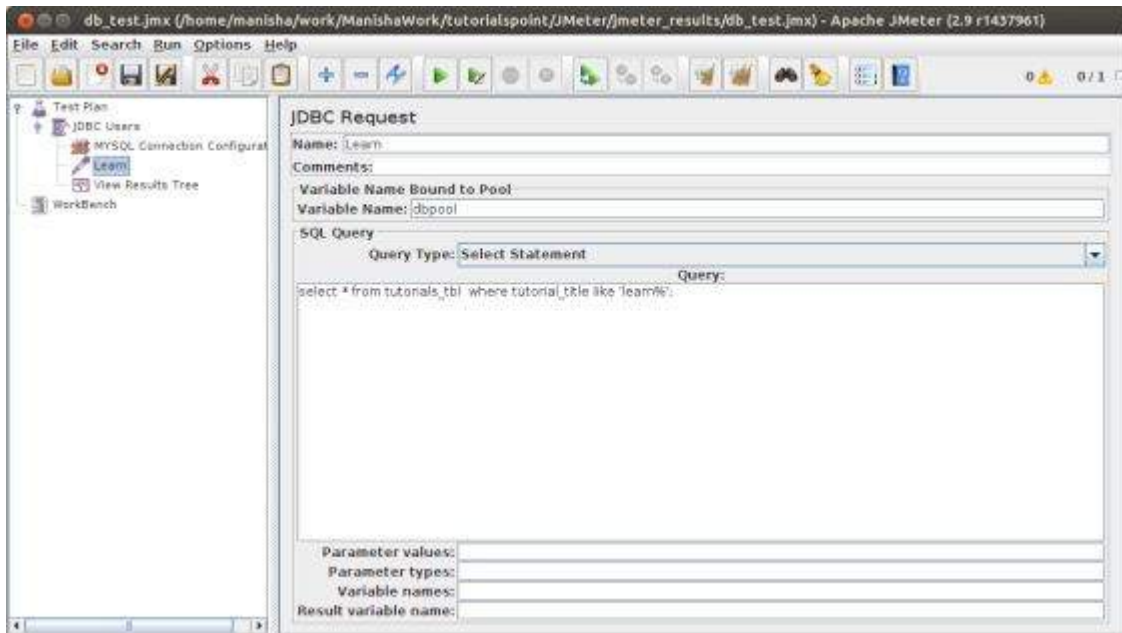
The other fields on the screen are left as defaults as shown below –



Now add a JDBC Request which refers to the JDBC Configuration pool defined above. Select JDBC Users element.

- Click your right mouse button to get the Add menu

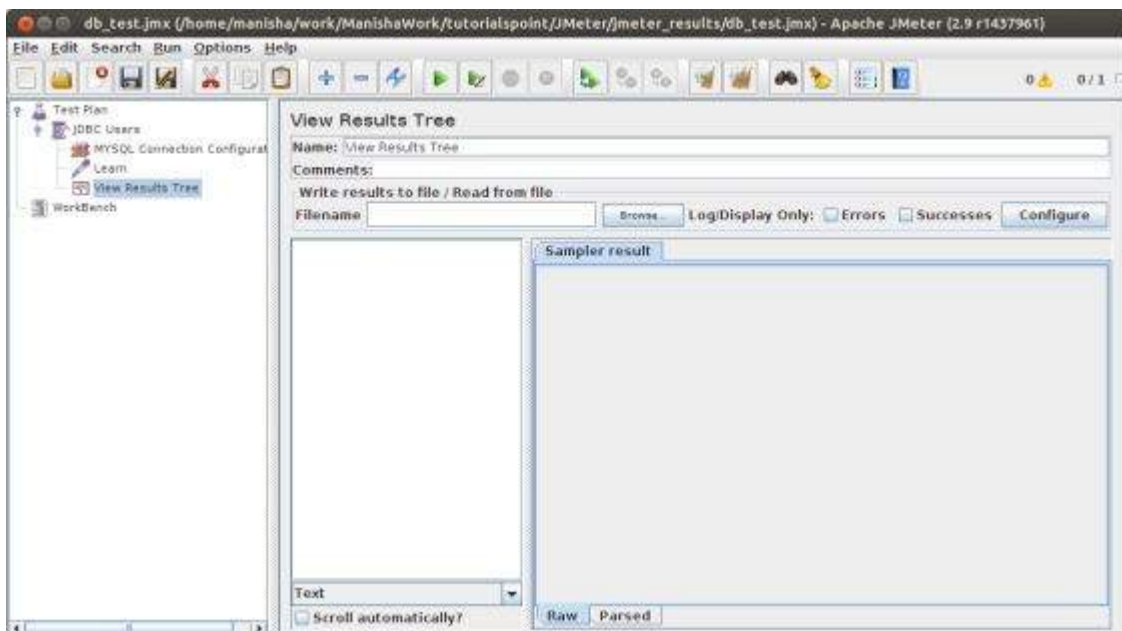
- Select **Add > Sampler > JDBC Request**.
- Select this new element to view its Control Panel.
- Edit the properties as shown below –
  - Variable name bound to pool. This needs to uniquely identify the configuration. It is used by the JDBC Sampler to identify the configuration to be used. Named it as *test*.
  - Name – Learn.
  - Enter the Pool Name – *test sameasintheconfigurationelement*.
  - Query Type – Select statement.
  - Enter the SQL Query String field.



## Create Listener

Now add the Listener element. This element is responsible for storing all of the results of your JDBC requests in a file and presenting a visual model of the data.

- Select the JDBC Users element
- Add a View Results Tree listener (**Add > Listener > View Results Tree**).



## Save and Execute Test Plan

Now save the above test plan as *db\_test.jmx*. Execute this test plan using **Run > Start** option.

## Verify the Output

The image displays three sequential screenshots of the Apache JMeter interface, showing the execution of a test plan and the resulting output.

**Top Screenshot:** The 'View Results Tree' panel shows the 'Learn' sampler result. The 'Response data' tab is selected, displaying the following details:

- Thread Name: JDBC Users 1-1
- Sample Start: 2013-09-04 17:08:26 IST
- Load time: 2
- Latency: 1
- Size in bytes: 125
- Headers size in bytes: 0
- Body size in bytes: 125
- Sample Count: 1
- Error Count: 0
- Response code: 200
- Response message: OK
- Response headers: `com.mysql.jdbc.Connection@33fca6d5`
- SampleResult fields: `ContentType: text/plain`, `DataEncoding: UTF-8`

**Middle Screenshot:** The 'View Results Tree' panel shows the 'Learn' sampler result. The 'Request' tab is selected, displaying the SQL query:

```
Select Statement] select * from tutorials_tbl where tutorial_title like 'learn%';
```

**Bottom Screenshot:** The 'View Results Tree' panel shows the 'Learn' sampler result. The 'Response data' tab is selected, displaying the following table:

tutorial_id	tutorial_title	tutorial_author	submission_date
1	Learn PHP	John Paul	2013-09-03
2	Learn MySQL	Abdul S	2013-09-03



In the last image, you can see that two records are selected.

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