ITMD 521 – Week-02 – Chapter-02 Comparative Assignment

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Part 1:

Run the max_temperature script for 3 times for the dataset of :

- Dataset1: Run against 1990 data set
- Dataset2: Run Against 1990 and 1992
- Dataset3: Run against 1990, 1992, 1991 and 1993

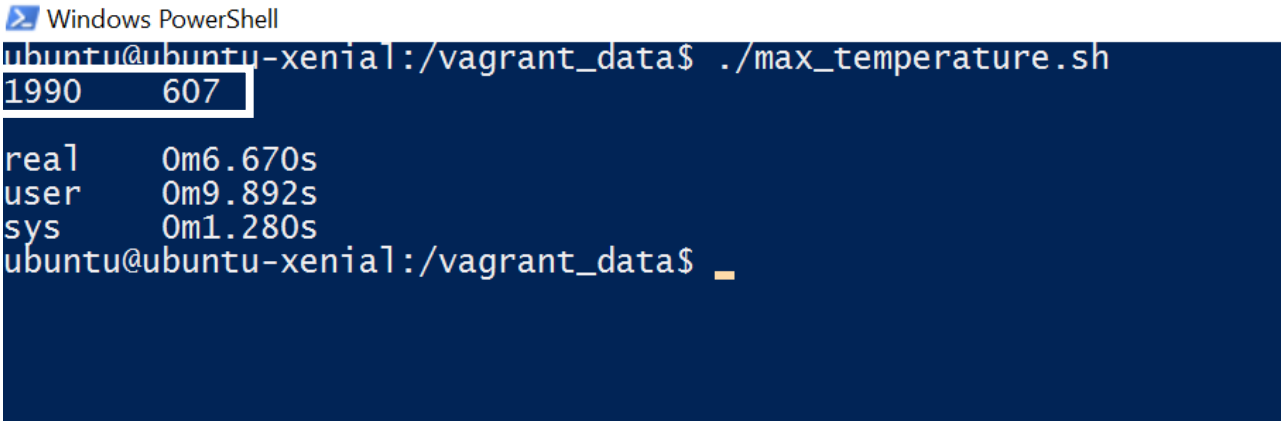
Dataset1 Observation: For 1990.gz

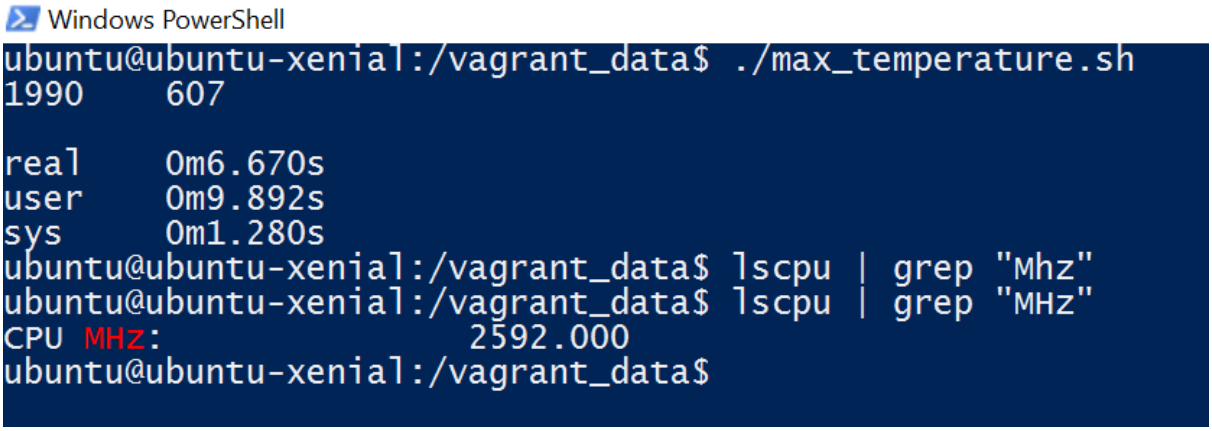
Time taken by real is: 6.670s

Time taken by user is: 9.892s

Time taken by Sys is: 1.280s

CPU usuage: 2592 MHz





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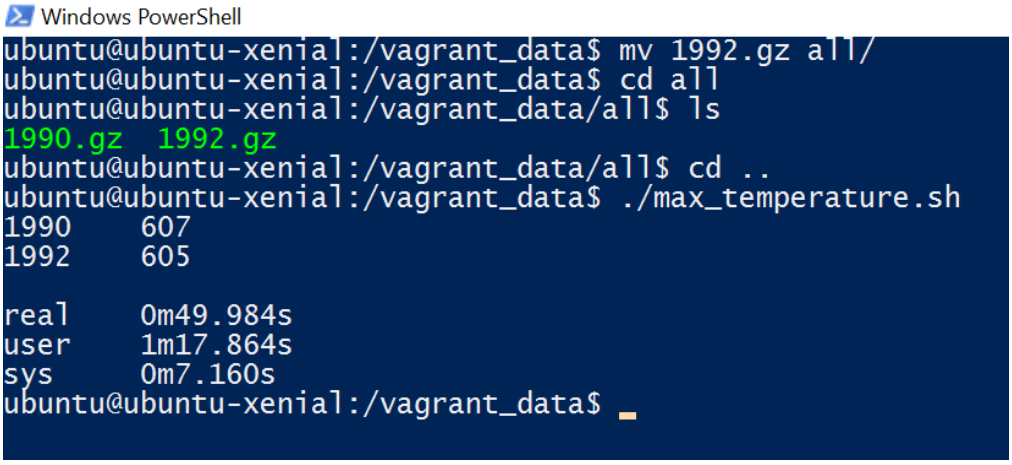
Dataset2 Observation: For 1990.gz and 1992.gz

Time taken by real is: 49.984s

Time taken by user is: 1m17.864s

Time taken by Sys is: 7.160s

CPU usuage: 2592 MHz



Dataset3 Observation: For 1990.gz, 1991.gz,1992.gz and 1993.gz

Time taken by real is: 1m35.372s

Time taken by user is: 2m26.668s

Time taken by Sys is: 15.716s

CPU usuage: 2592 MHz

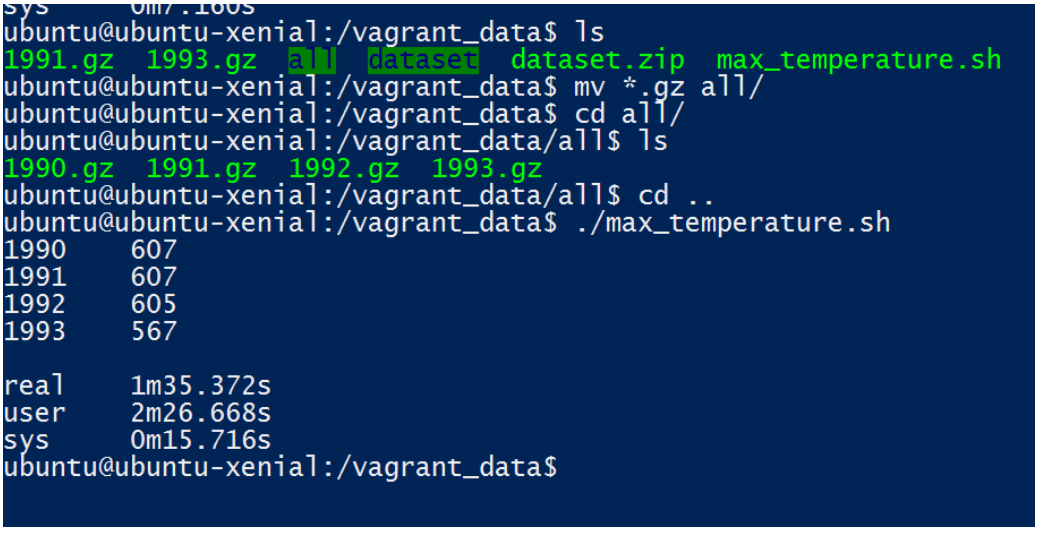


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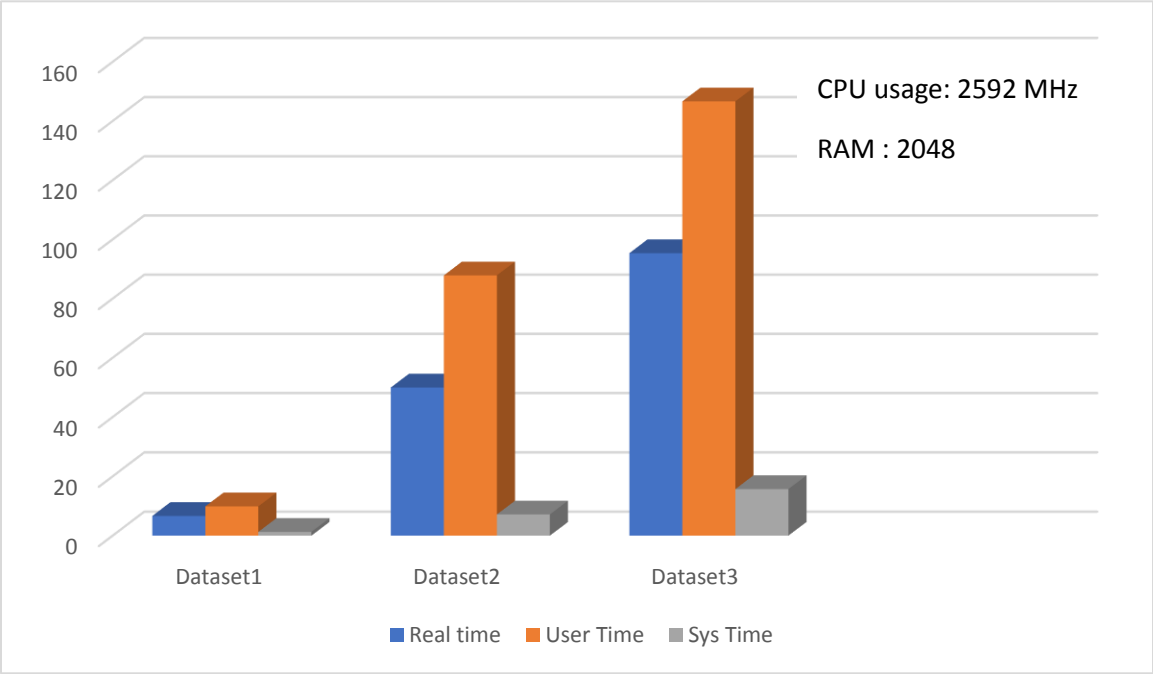
Chart for all 3 Datasets:

Data Set	Real time	User Time	Sys Time	CPU usage	RAM Allocated
Dataset1	6.670s	9.892s	1.280s	2592 MHz	2048
Dataset2	49.984s	1m17.864s	7.160s	2592 MHz	2048
Dataset3	1m35.372s	2m26.668s	15.716s	2592 MHz	2048

Graph Comparison for all 3 Dataset:



Part- 02

Using the same datasets and the schema provided in the beginning of chapter We developed a java program that will parse the datasets and insert them into 3 tables in a mysql database(professor_02). The root password combo for mysql is: safestsystemever

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Create a Schema named "professor_02" in the mysql server and use this professor_02 for further steps.

1. Copy the eclipse project into the Ubuntu/trusty64 folder.
2. By using power shell, Start the Vagrant by using command : **vagrant up**
3. Start the Ubuntu machine by using command **vagrant ssh**

```
PS C:\Users\Jyoti Shukla> cd .\Vagrant\
PS C:\Users\Jyoti Shukla\Vagrant> cd .\trusty64\
PS C:\Users\Jyoti Shukla\Vagrant\trusty64> cd .\max_temp\
PS C:\Users\Jyoti Shukla\Vagrant\trusty64\max_temp> ls


    Directory: C:\Users\Jyoti Shukla\Vagrant\trusty64\max_temp


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        26/01/2017     12:54                .settings
d-----        26/01/2017     12:54                bin
d-----        26/01/2017     13:54                src
-a----        23/01/2017     15:58            439 .classpath
-a----        23/01/2017     15:25            384 .project
-a----        23/01/2017     15:33      139098629 1990.gz
-a----        23/01/2017     15:33      463085051 1991.gz
-a----        23/01/2017     15:34      843137958 1992.gz
-a----        23/01/2017     15:34      426390109 1993.gz


PS C:\Users\Jyoti Shukla\Vagrant\trusty64\max_temp>
```

4. Navigate to home directory by using comand **cd /**
5. Change directory to /vagrant in home directory: where we can see our project named "max_temp"
6. Copy all the .gz files in thr src folder of the project, so that we can get the dataset.
7. Compile the project by navigating to the directory src by using command **javac max_temp/Max_temperature.java**
8. Run the project by using command **java max_temp/Max_temperature**

After running the program, Options will be present to execute the different datasets

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```
Select Windows PowerShell
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ javac max_temp/Max_temperature.java
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ java max_temp/Max_temperature
Select your dataset(1/2/3):
1
```

Result in Ubuntu Machine:

```
Windows PowerShell
vagrant@vagrant-ubuntu-trusty-64:/$ cd vagrant/
vagrant@vagrant-ubuntu-trusty-64:/vagrant$ cd max_temp/
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp$ ls
bin  src
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp$ cd src/
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ javac max_temp/Max_temperature.java
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ java max_temp/Max_temperature
Select your dataset(1/2/3):
1
1990 607
58 seconds
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ java max_temp/Max_temperature
Select your dataset(1/2/3):
2
1 0
1990 607
1992 605
401 seconds
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$ java max_temp/Max_temperature
Select your dataset(1/2/3):
3
1990 607
1991 607
1992 605
1993 567
828 seconds
vagrant@vagrant-ubuntu-trusty-64:/vagrant/max_temp/src$
```