Assignment 1 (Date 15-06-2022)

Q.) *****SQL Assignment***

1) Write an SQL query to find all dates, temp,

Id with higher temperatures compared to its previous

dates (yesterday).

Input:

ID	RECORD_DATE	TEMEPERATURE
1	01-01-2015	10
2	02-01-2015	25
3	03-01-2015	20
4	04-01-2015	30

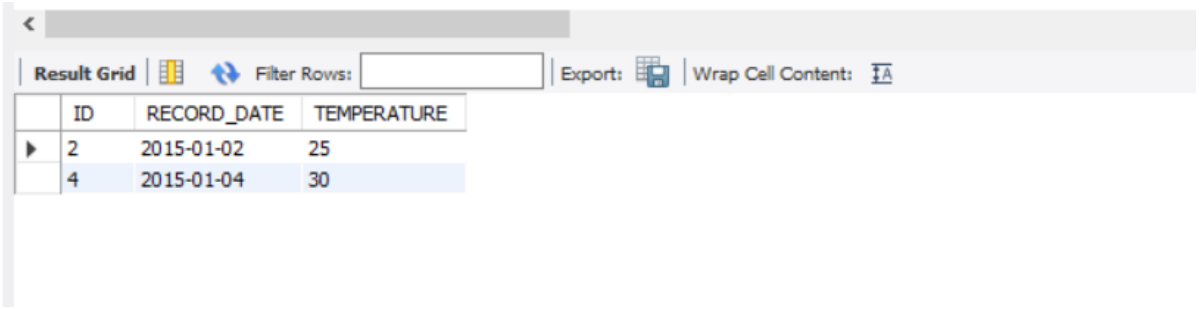
Output:

ID	RECORD_DATE	TEMEPERATURE
2	02-01-2015	25
4	04-01-2015	30

SOLUTION:

```
13 •  create database ass2;
14
15 •  use ass2;
16 •  drop table temp;
17 •  create table temp(ID int, RECORD_DATE date, TEMPERATURE INT);
18
19 •  insert into temp values(1,'2015-01-01',10),(2,'2015-01-02',25),(3,'2015-01-03',20),(4,'2015-01-04',30);
20
21 •  select T.ID,T.RECORD_DATE, T.TEMPERATURE from temp T, temp T1
22     where datediff(T.RECORD_DATE , T1.RECORD_DATE) = 1 and T.TEMPERATURE > T1.TEMPERATURE;
```

OUTPUT:



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ID	RECORD_DATE	TEMPERATURE
2	2015-01-02	25
4	2015-01-04	30

Q.) *****Python Assignment*****

1) Reverse the elements from a given list?

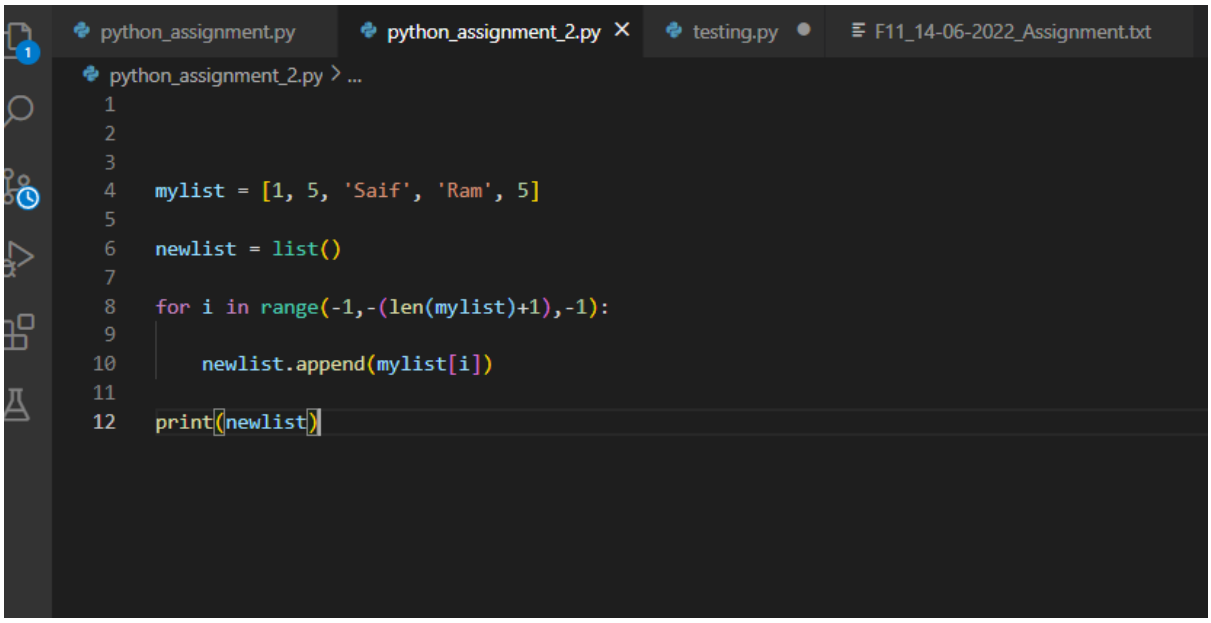
mylist = [1, 5, 'Saif', 'Ram', 5]

Note: Do not use methods or functions given by python

Output:

[5, 'Ram', 'Saif', 5, 1]

SOLUTION:

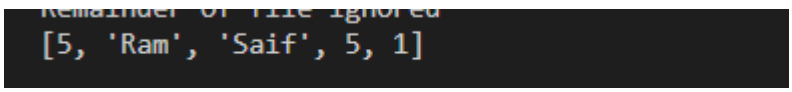


python_assignment.py | python_assignment_2.py | testing.py | F11_14-06-2022_Assignment.txt

python_assignment_2.py > ...

```
1
2
3
4   mylist = [1, 5, 'Saif', 'Ram', 5]
5
6   newlist = list()
7
8   for i in range(-1,-(len(mylist)+1),-1):
9
10      newlist.append(mylist[i])
11
12  print(newlist)
```

Output:



```
[5, 'Ram', 'Saif', 5, 1]
```

Q.) *****Sqoop Assignment*****

1) Parameterize SQL Query in yesterday's Shell Scripting Sqoop Assignment.

Solution:

Sqp.prm

```
saif@smidsy-technologies:~/cohort_F11/env$ cat sqp.prm
HOST=localhost
PORT_NO=3306
DB_NAME=retail_db
USERNAME=root
PASSWORD_FILE=file:///home/saif/cohort_F11/datasets/sqoop.pwd
TABLE_NAME=categories
TABLE_NAME_2=orders
OP_DIR=/user/saif/HFS/Output/
QUERY="select p.product_id product_id,  p.product_name, o.order_item_product_id, o.order_item_product_price from order_ite
ms o right join products p on p.product_id = o.order_item_product_id where o.order_item_product_id is not null and \$CONDI
TIONS"
saif@smidsy-technologies:~/cohort_F11/env$
```

Script:

```
#!/bin/bash


# sourcing the parameter file

. /home/saif/cohort_F11/env/sqp.prm


# validating command line arguments

if [ $# -eq 0 ]

then

        echo "No command line arguments are passes"

        echo "Please try below command"

        echo "bash [file_name] [space_seperated_arguments]"

else


LOG_DIR=/home/saif/cohort_F11/logs/

FILE_NAME=`basename $0`

DATE_STAMP=`date '+%Y%m%d_%H:%M:%S'`


LOG_FILE_NAME=${LOG_DIR}${FILE_NAME}_${DATE_STAMP}.log
```

```
#checking if directory exist or not
if hadoop fs -test -d ${OP_DIR}${1}
      then
                  # deletes directory if exists
           hadoop fs -rm -r ${OP_DIR}${1}
fi

# runs sqoop command importing data from RDBMS to the HDFS
sqoop import \
          --connect jdbc:mysql://${HOST}:${PORT}/${DB_NAME}?useSSL=False \
          --username ${USERNAME} \
          --password-file ${PASSWORD_FILE} \
          --query "${QUERY}" \
          -m 1 \
          --target-dir ${OP_DIR}${1}

echo "Data Ingestion of ${1} completed sucessfully." > ${LOG_FILE_NAME}

fi
```

Output:

```
                Total committed heap usage (bytes)=534493744
                Peak Map Physical memory (bytes)=297656320
                Peak Map Virtual memory (bytes)=2561138688
        File Input Format Counters
                Bytes Read=0
        File Output Format Counters
                Bytes Written=8955679
2022-06-16 00:21:49,838 INFO mapreduce.ImportJobBase: Transferred 8.5408 MB in 27.6027 seconds (316.8453 KB/sec)
2022-06-16 00:21:49,842 INFO mapreduce.ImportJobBase: Retrieved 172198 records.
+ echo 'Data Ingestion of ORDER_PRODUCTS_PRICE_PARM_QUERY completed sucessfully.'
```

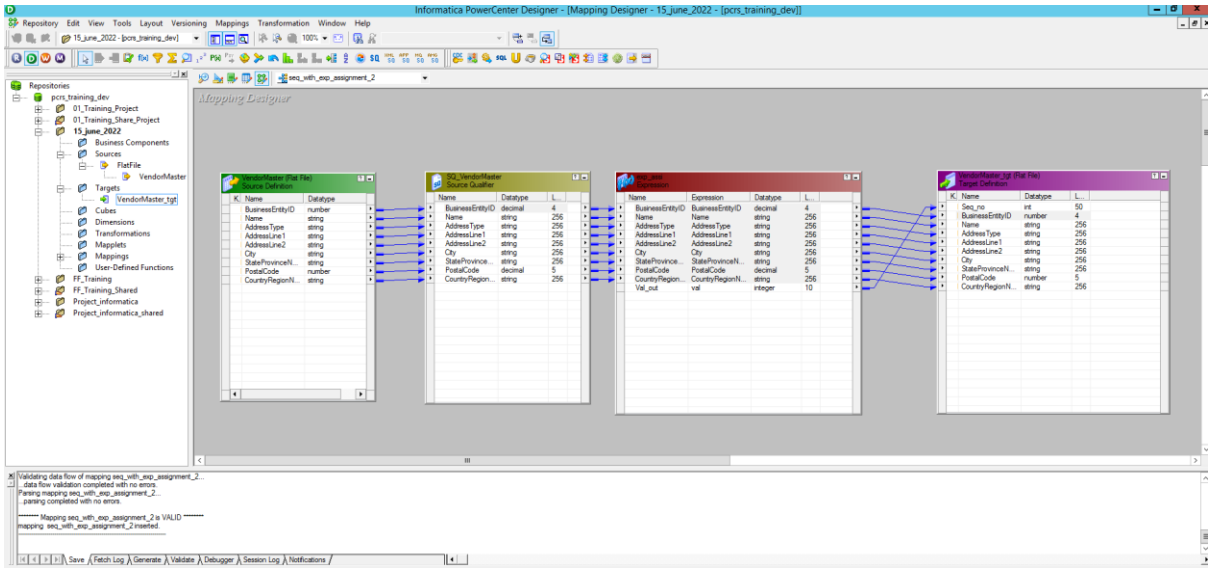
```
saif@smidsy-technologies:~/cohort_F11/scripts$ hdfs dfs -ls HFS/Output/ORDER_PRODUCTS_PRICE_PARM_QUERY
2022-06-16 00:25:57,520 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builti
n-java classes where applicable
Found 2 items
-rw-r--r--   1 saif supergroup          0 2022-06-16 00:21 HFS/Output/ORDER_PRODUCTS_PRICE_PARM_QUERY/_SUCCESS
-rw-r--r--   1 saif supergroup    8955679 2022-06-16 00:21 HFS/Output/ORDER_PRODUCTS_PRICE_PARM_QUERY/part-m-00000
saif@smidsy-technologies:~/cohort_F11/scripts$
```

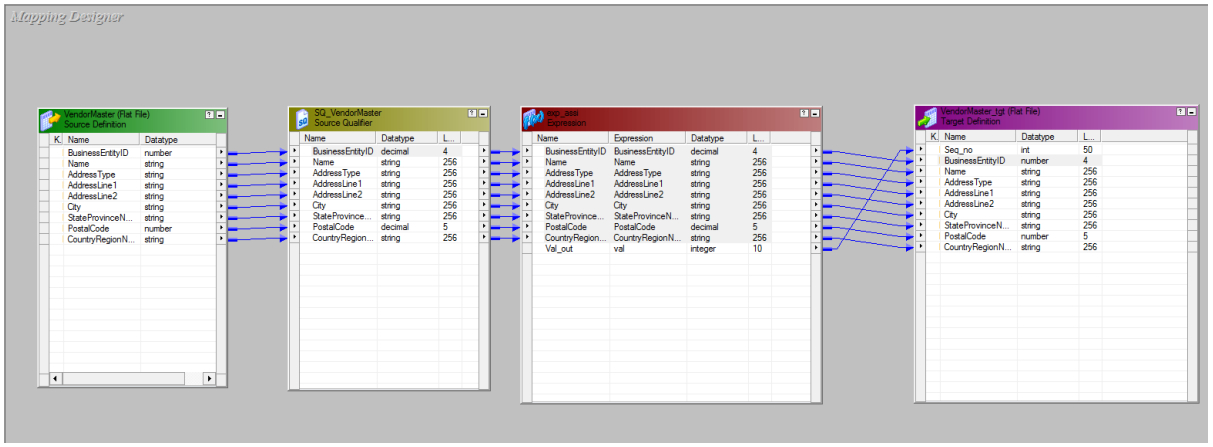
Q.) *****Informatica Assignment*****

How to generate sequence no using expression transformation?

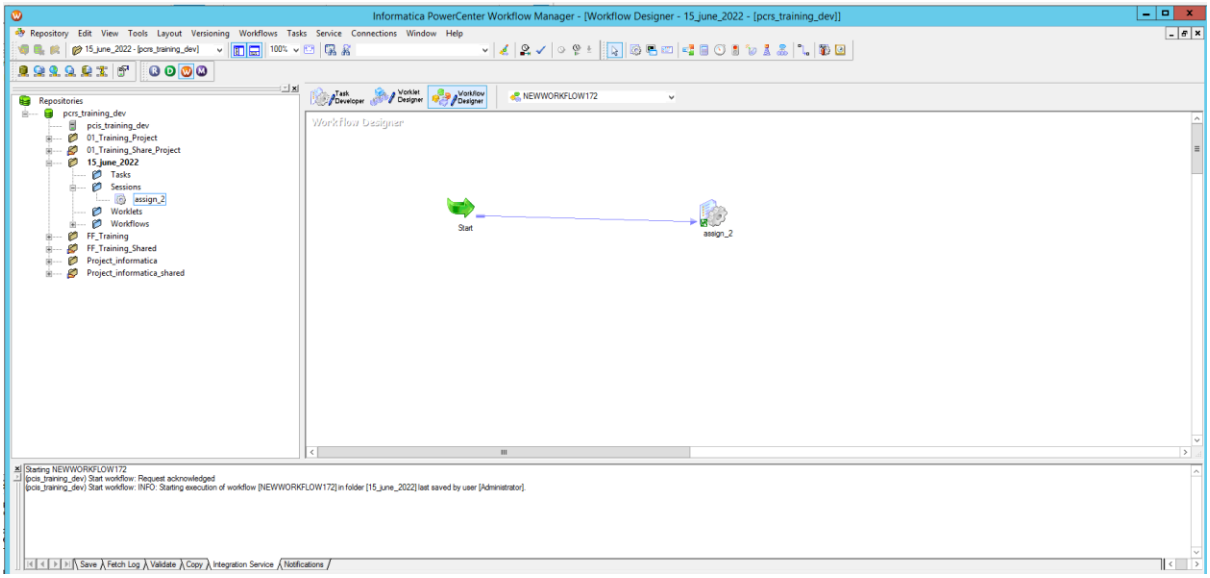
Solution:

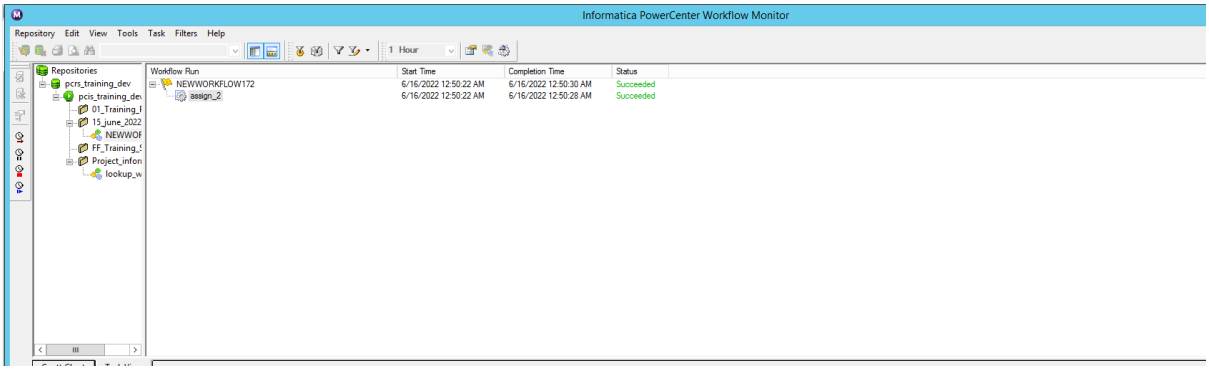
Mapping:



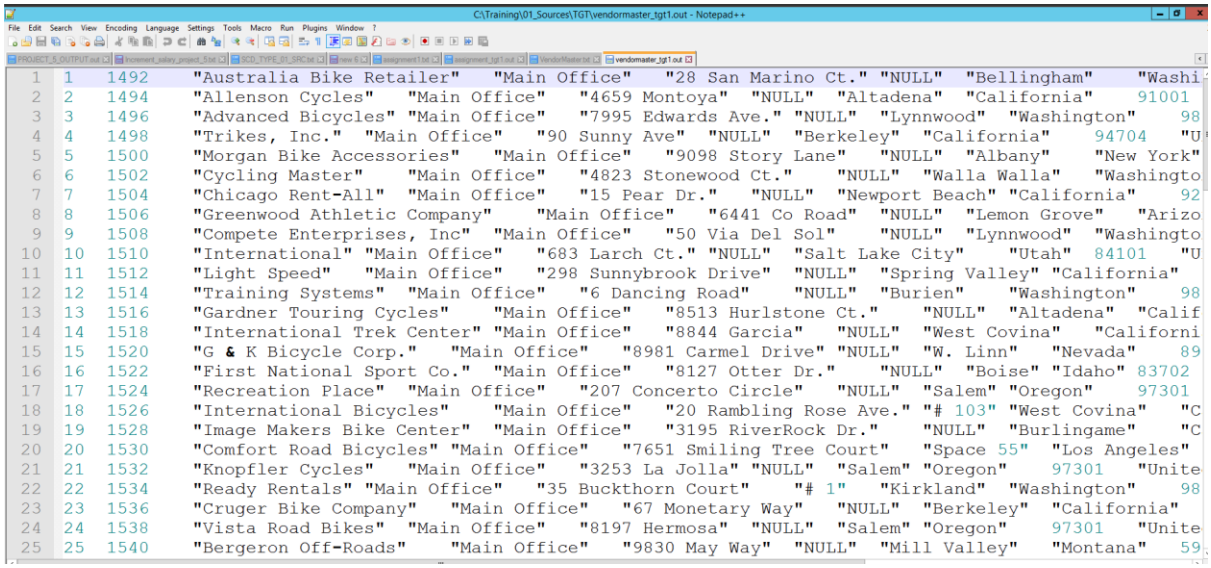


Session /Wrokflow:


Informatica PowerCenter Workflow Manager - [Workflow Designer - 15_june_2022 - [pcrs_training_dev]]
Repository Edit View Tools Layout Versioning Workflows Tasks Service Connections Window Help
Repositories
pcrs_training_dev
pcis_training_dev
01_Training_Project
01_Training_Share_Project
15_june_2022
Tasks
Sessions
assign_2
Worklets
Workflows
FF_Training
FF_Training_Shared
Project_informatica
Project_informatica_shared
Task Developer
Worklet Designer
Workflow Designer
NEWWORKFLOW172
Workflow Designer
Start
assign_2
Starting NEWWORKFLOW172
[pcis_training_dev] Start workflow: Request acknowledged
[pcis_training_dev] Start workflow: INFO: Starting execution of workflow [NEWWORKFLOW172] in folder [15_june_2022] last saved by user [Administrator].
Save
Fetch Log
Validate
Copy
Integration Service
Notifications


Informatica PowerCenter Workflow Monitor
Repository Edit View Tools Task Filters Help
1 Hour
Repositories
pcrs_training_dev
Workflow Run
Start Time
Completion Time
Status
NEWWORKFLOW172
6/16/2022 12:50:22 AM
6/16/2022 12:50:30 AM
Succeeded
assign_2
6/16/2022 12:50:22 AM
6/16/2022 12:50:28 AM
Succeeded

Output:


C:\Training\01_Sources\TGT\vendormaster_tgt1.out - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
vendormaster_tgt1.out
1 1 1492 "Australia Bike Retailer" "Main Office" "28 San Marino Ct." "NULL" "Bellingham" "Washi
2 2 1494 "Allenson Cycles" "Main Office" "4659 Montoya" "NULL" "Altadena" "California" 91001
3 3 1496 "Advanced Bicycles" "Main Office" "7995 Edwards Ave." "NULL" "Lynnwood" "Washington" 98
4 4 1498 "Trikes, Inc." "Main Office" "90 Sunny Ave" "NULL" "Berkeley" "California" 94704 "U
5 5 1500 "Morgan Bike Accessories" "Main Office" "9098 Story Lane" "NULL" "Albany" "New York"
6 6 1502 "Cycling Master" "Main Office" "4823 Stonewood Ct." "NULL" "Walla Walla" "Washingto
7 7 1504 "Chicago Rent-All" "Main Office" "15 Pear Dr." "NULL" "Newport Beach" "California" 92
8 8 1506 "Greenwood Athletic Company" "Main Office" "6441 Co Road" "NULL" "Lemon Grove" "Arizo
9 9 1508 "Compete Enterprises, Inc" "Main Office" "50 Via Del Sol" "NULL" "Lynnwood" "Washingto
10 10 1510 "International" "Main Office" "683 Larch Ct." "NULL" "Salt Lake City" "Utah" 84101 "U
11 11 1512 "Light Speed" "Main Office" "298 Sunnybrook Drive" "NULL" "Spring Valley" "California"
12 12 1514 "Training Systems" "Main Office" "6 Dancing Road" "NULL" "Burien" "Washington" 98
13 13 1516 "Gardner Touring Cycles" "Main Office" "8513 Hurlstone Ct." "NULL" "Altadena" "Calif
14 14 1518 "International Trek Center" "Main Office" "8844 Garcia" "NULL" "West Covina" "Californi
15 15 1520 "G & K Bicycle Corp." "Main Office" "8981 Carmel Drive" "NULL" "W. Linn" "Nevada" 89
16 16 1522 "First National Sport Co." "Main Office" "8127 Otter Dr." "NULL" "Boise" "Idaho" 83702
17 17 1524 "Recreation Place" "Main Office" "207 Concerto Circle" "NULL" "Salem" "Oregon" 97301
18 18 1526 "International Bicycles" "Main Office" "20 Rambling Rose Ave." "# 103" "West Covina" "C
19 19 1528 "Image Makers Bike Center" "Main Office" "3195 RiverRock Dr." "NULL" "Burlingame" "C
20 20 1530 "Comfort Road Bicycles" "Main Office" "7651 Smiling Tree Court" "Space 55" "Los Angeles"
21 21 1532 "Knopfler Cycles" "Main Office" "3253 La Jolla" "NULL" "Salem" "Oregon" 97301 "Unite
22 22 1534 "Ready Rentals" "Main Office" "35 Buckthorn Court" "# 1" "Kirkland" "Washington" 98
23 23 1536 "Cruger Bike Company" "Main Office" "67 Monetary Way" "NULL" "Berkeley" "California"
24 24 1538 "Vista Road Bikes" "Main Office" "8197 Hermosa" "NULL" "Salem" "Oregon" 97301 "Unite
25 25 1540 "Bergeron Off-Roads" "Main Office" "9830 May Way" "NULL" "Mill Valley" "Montana" 59