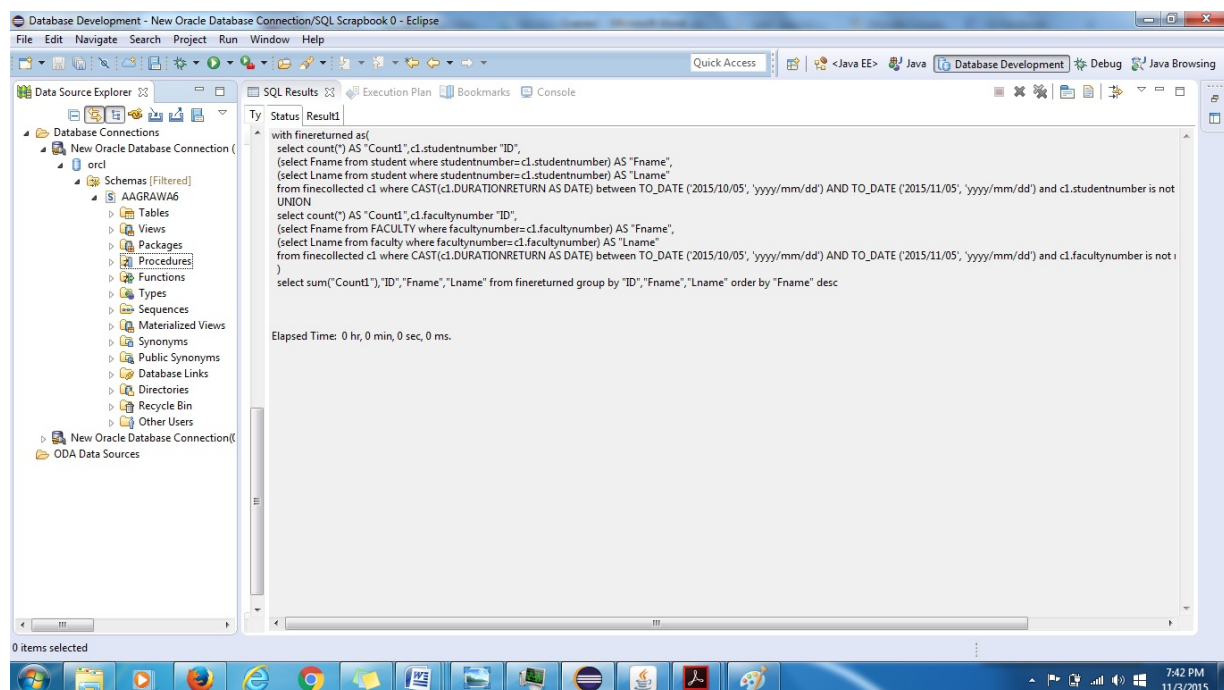


Queries:

1. List in descending order the names of the patrons and the number of times they failed to return a resource on time from Oct 5th to Nov 5th, 2015.

```
with finereturned as(
  select count(*) AS "Count1",c1.studentnumber "ID",
  (select Fname from student where studentnumber=c1.studentnumber) AS "Fname",
  (select Lname from student where studentnumber=c1.studentnumber) AS "Lname"
  from finecollected c1 where CAST(c1.DURATIONRETURN AS DATE) between
  TO_DATE ('2015/10/05', 'yyyy/mm/dd') AND TO_DATE ('2015/11/05', 'yyyy/mm/dd')
  and c1.studentnumber is not null group by (c1.studentnumber)
  UNION
  select count(*) AS "Count1",c1.facultynumber "ID",
  (select Fname from FACULTY where facultynumber=c1.facultynumber) AS "Fname",
  (select Lname from faculty where facultynumber=c1.facultynumber) AS "Lname"
  from finecollected c1 where CAST(c1.DURATIONRETURN AS DATE) between
  TO_DATE ('2015/10/05', 'yyyy/mm/dd') AND TO_DATE ('2015/11/05', 'yyyy/mm/dd')
  and c1.facultynumber is not null group by (c1.facultynumber)
)
select sum("Count1"),"ID","Fname","Lname" from finereturned group by
"ID","Fname","Lname" order by "Fname" desc;
```

Status:



Result :

The screenshot shows the Eclipse IDE interface with the 'Database Development' perspective. The 'Data Source Explorer' on the left shows a connection to 'orcl' with the schema 'AAGRAWA6' selected. The 'SQL Results' window displays the output of a query: `SUM('COUNT1')`. The results are as follows:

Id	Fname	Lname
1	Walter	White
2	Walt	Jr.
3	Jesse	Pinkman

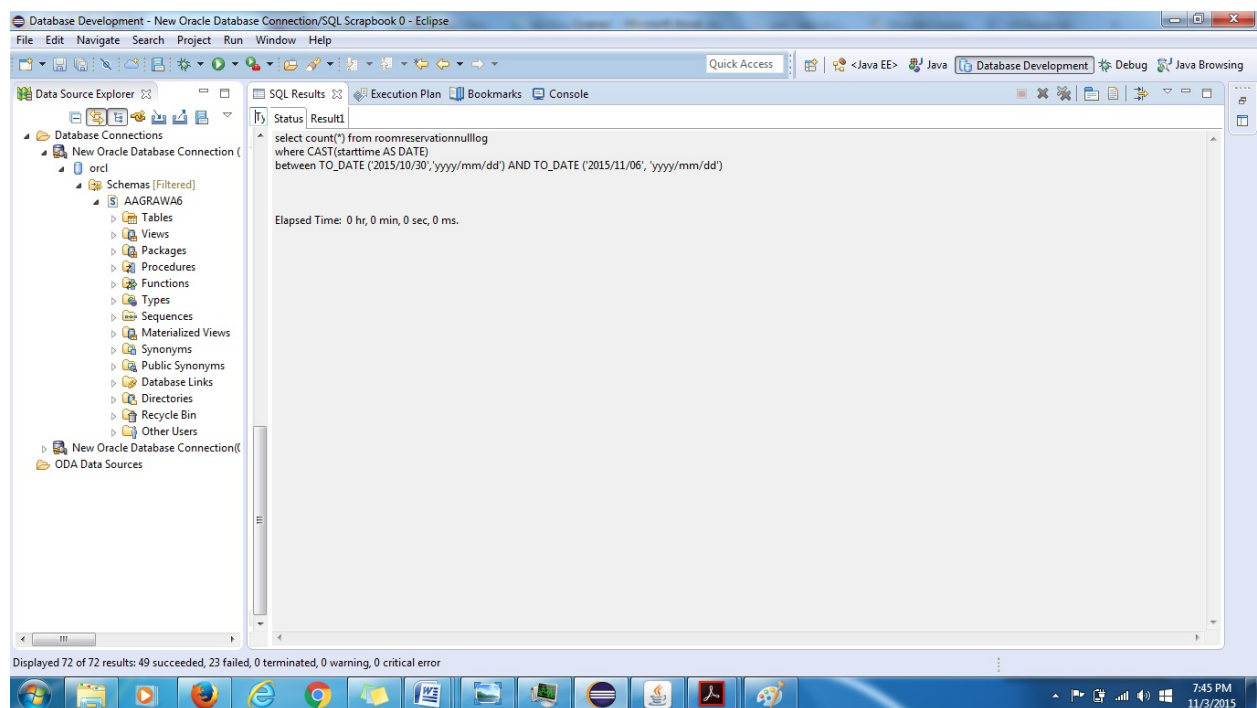
At the bottom of the SQL Results window, it states 'Total 3 records shown'. The status bar at the bottom of the IDE indicates: 'Displayed 71 of 71 results: 48 succeeded, 23 failed, 0 terminated, 0 warning, 0 critical error'. The system clock in the bottom right corner shows 7:43 PM on 11/3/2015.

2. List the number of room reservations from Oct 30th to Nov 6th, 2015 that were rendered null and void because the patron failed to check in within the first one hour.

Query:

```
select count(*) from roomreservationnulllog
where CAST(starttime AS DATE)
between TO_DATE ('2015/10/30','yyyy/mm/dd') AND TO_DATE ('2015/11/06',
'yyyy/mm/dd');
```

Status:



Result:

The screenshot shows the Eclipse IDE interface with the 'SQL Results' window displaying the results of a query. The query is a simple COUNT(*) operation. The results window shows a single row with the value 3. The status bar at the bottom indicates 'Total 1 records shown'.

STATUS	Result1
1	3

Total 1 records shown

For Reference:

The screenshot shows the Eclipse IDE interface with the 'SQL Results' window displaying the results of a query. The query returns a table with columns: ROOMID, STARTTIME, ENDTIME, STUDENTNUMBER, and FACULTYNUMBER. The results window shows three rows of data. The status bar at the bottom indicates 'Total 3 records shown'.

	ROOMID	STARTTIME	ENDTIME	STUDENTNUMBER	FACULTYNUMBER
1	1	2015-10-30 20:02:00.0	2015-10-30 21:02:00.0	NULL	F1
2	7	2015-11-01 19:08:00.0	2015-11-01 20:08:00.0	S1	NULL
3	7	2015-11-02 16:24:00.0	2015-11-02 18:24:00.0	S2	NULL

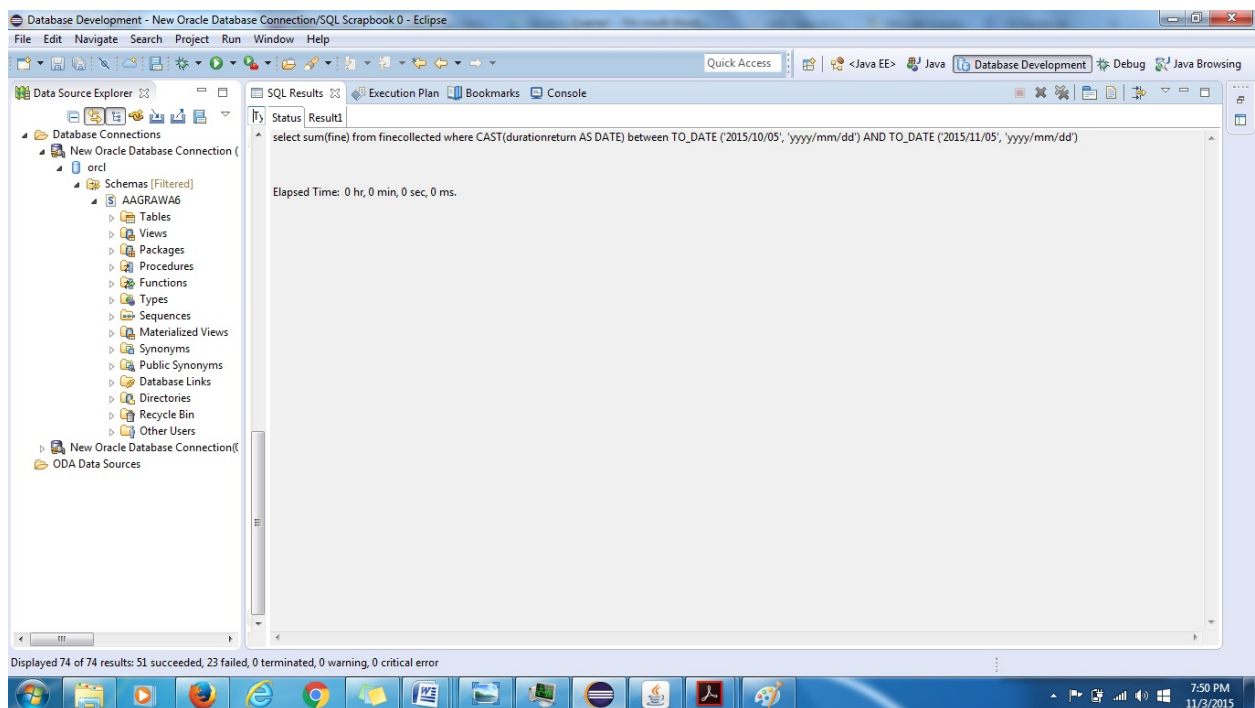
Total 3 records shown

3. What is the total amount of money that the library received between Oct 5th to Nov 5th, 2015 in terms of late fees for all resources from all patrons.

Query:

```
select sum(fine) from finecollected where CAST(durationreturn AS DATE) between  
TO_DATE ('2015/10/05', 'yyyy/mm/dd') AND TO_DATE ('2015/11/05', 'yyyy/mm/dd');
```

Status:



Result:

The screenshot shows the Eclipse IDE interface with the 'SQL Results' window displaying the results of a query. The query is 'SUM(FINE)' and the result is a single row with the value 1411. The 'Data Source Explorer' on the left shows the database structure, including schemas, tables, views, and packages. The status bar at the bottom indicates 'Total 1 records shown'.

STUDENTNUMBER	FACULTYNUMBER	TYPEOFRESOURCE	NAMEOFRESOURCE	FINE	DURATIONRETURN	CHECKOUTTIME	RETURNTIME
1	NULL	F1	Camera	CA3	120	2015-11-03 16:41:55.719	NULL
2	S2	NULL	Books	B2	464	2015-11-03 16:50:21.092	NULL
3	S1	NULL	Books	B4	30	2015-11-03 16:34:27.641	NULL
4	S2	NULL	Books	B2	16	2015-11-03 16:47:33.873	NULL
5	S1	NULL	Camera	CA1	289	2015-11-03 16:37:16.387	NULL
6	NULL	F1	Books	B2	36	2015-11-03 16:40:50.03	NULL
7	S2	NULL	Camera	CA1	456	2015-11-03 16:48:57.304	NULL

For Reference:

The screenshot shows the Eclipse IDE interface with the 'SQL Results' window displaying the results of a query. The query is 'SUM(FINE)' and the result is a single row with the value 1411. The 'Data Source Explorer' on the left shows the database structure, including schemas, tables, views, and packages. The status bar at the bottom indicates 'Total 7 records shown'.

STUDENTNUMBER	FACULTYNUMBER	TYPEOFRESOURCE	NAMEOFRESOURCE	FINE	DURATIONRETURN	CHECKOUTTIME	RETURNTIME
1	NULL	F1	Camera	CA3	120	2015-11-03 16:41:55.719	NULL
2	S2	NULL	Books	B2	464	2015-11-03 16:50:21.092	NULL
3	S1	NULL	Books	B4	30	2015-11-03 16:34:27.641	NULL
4	S2	NULL	Books	B2	16	2015-11-03 16:47:33.873	NULL
5	S1	NULL	Camera	CA1	289	2015-11-03 16:37:16.387	NULL
6	NULL	F1	Books	B2	36	2015-11-03 16:40:50.03	NULL
7	S2	NULL	Camera	CA1	456	2015-11-03 16:48:57.304	NULL

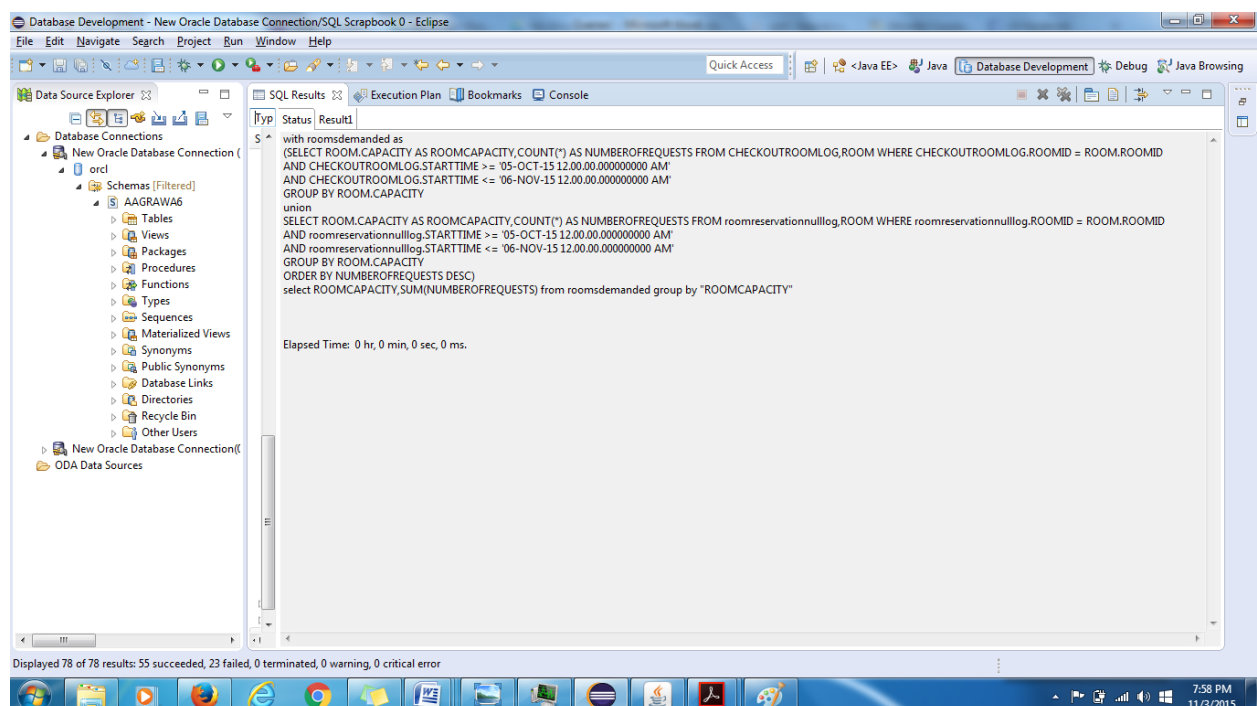
4. Using the number of requests between Oct 5th to Nov 5th, 2015 as a parameter determine what capacity rooms are in maximum demand.

Query:

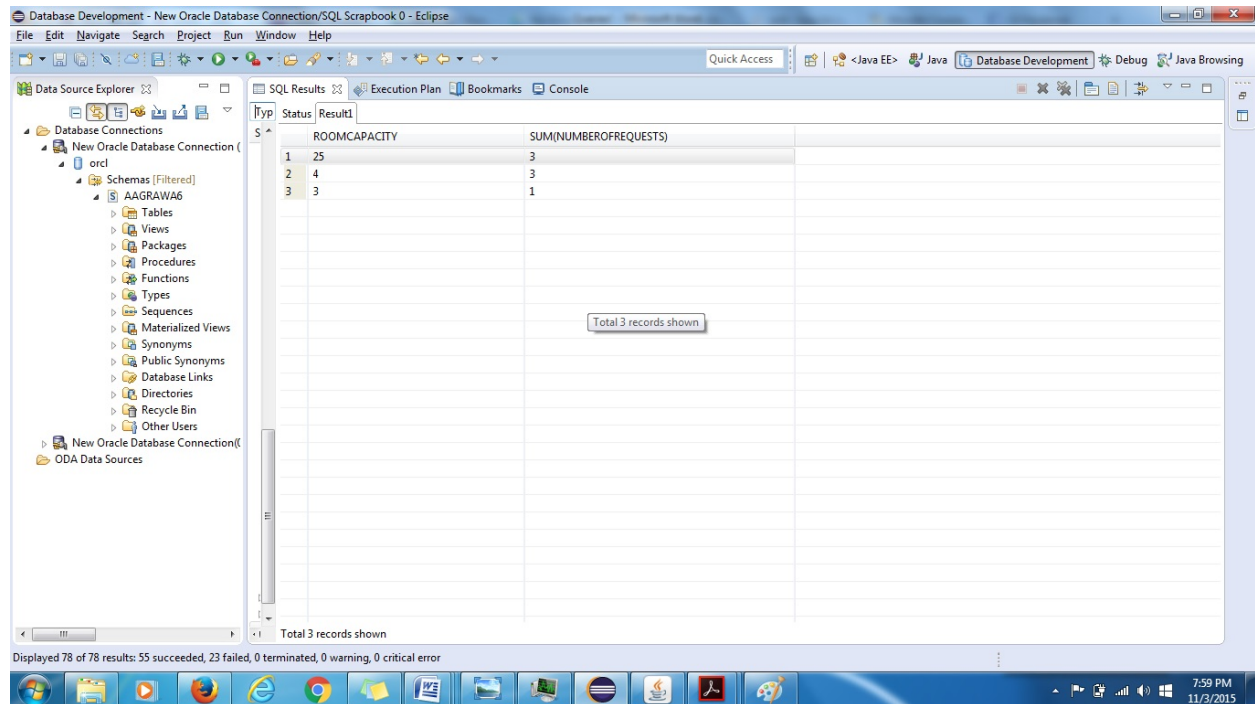
All

```
with roomsdemanded as
(SELECT ROOM.CAPACITY AS ROOMCAPACITY,COUNT(*) AS NUMBEROFREQUESTS
FROM CHECKOUTROOMLOG,ROOM WHERE CHECKOUTROOMLOG.ROOMID =
ROOM.ROOMID
AND CHECKOUTROOMLOG.STARTTIME >= '05-OCT-15 12.00.00.000000000 AM'
AND CHECKOUTROOMLOG.STARTTIME <= '06-NOV-15 12.00.00.000000000 AM'
GROUP BY ROOM.CAPACITY
union
SELECT ROOM.CAPACITY AS ROOMCAPACITY,COUNT(*) AS NUMBEROFREQUESTS
FROM roomreservationnulllog,ROOM WHERE roomreservationnulllog.ROOMID =
ROOM.ROOMID
AND roomreservationnulllog.STARTTIME >= '05-OCT-15 12.00.00.000000000 AM'
AND roomreservationnulllog.STARTTIME <= '06-NOV-15 12.00.00.000000000 AM'
GROUP BY ROOM.CAPACITY
ORDER BY NUMBEROFREQUESTS DESC)
select ROOMCAPACITY,SUM(NUMBEROFREQUESTS) from roomsdemanded group by
"ROOMCAPACITY";
```

Status:



Result :



Id	ROOMCAPACITY	SUM(NUMBEROFREQUESTS)
1	25	3
2	4	3
3	3	1

Total 3 records shown

Only the Maximum

with roomsdemanded as

```
(SELECT ROOM.CAPACITY AS ROOMCAPACITY,COUNT(*) AS NUMBEROFREQUESTS  
FROM CHECKOUTROOMLOG,ROOM WHERE CHECKOUTROOMLOG.ROOMID =  
ROOM.ROOMID
```

```
AND CHECKOUTROOMLOG.STARTTIME >= '05-OCT-15 12.00.00.000000000 AM'
```

```
AND CHECKOUTROOMLOG.STARTTIME <= '06-NOV-15 12.00.00.000000000 AM'
```

```
GROUP BY ROOM.CAPACITY
```

union

```
SELECT ROOM.CAPACITY AS ROOMCAPACITY,COUNT(*) AS NUMBEROFREQUESTS  
FROM roomreservationnulllog,ROOM WHERE roomreservationnulllog.ROOMID =  
ROOM.ROOMID
```

```
AND roomreservationnulllog.STARTTIME >= '05-OCT-15 12.00.00.000000000 AM'
```

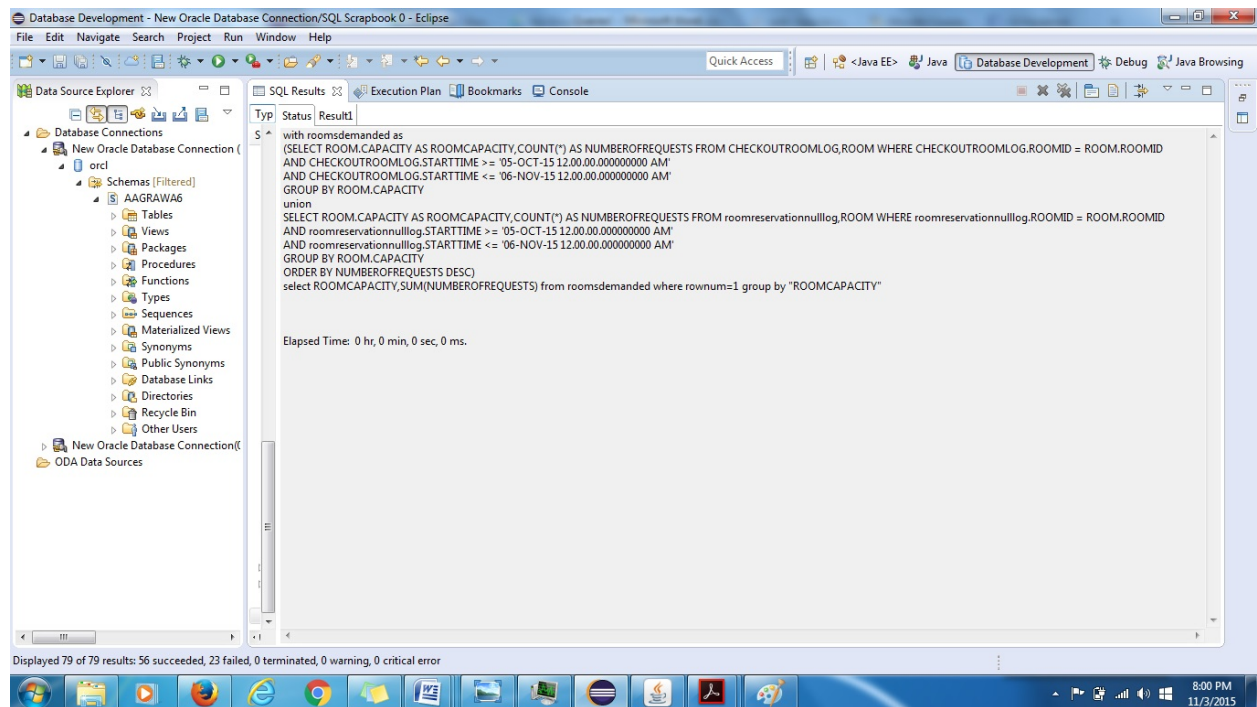
```
AND roomreservationnulllog.STARTTIME <= '06-NOV-15 12.00.00.000000000 AM'
```

```
GROUP BY ROOM.CAPACITY
```

```
ORDER BY NUMBEROFREQUESTS DESC)
```

```
select ROOMCAPACITY,SUM(NUMBEROFREQUESTS) from roomsdemanded where  
rownum=1 group by "ROOMCAPACITY";
```

Status:



Result:

