Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

ITE1003 – DATABASE MANAGEMENT SYSTEMS

DIGITAL ASSIGNMENT 1

NAME: EASHAA SHIV SHNAKAR SINGH KUSHWAH

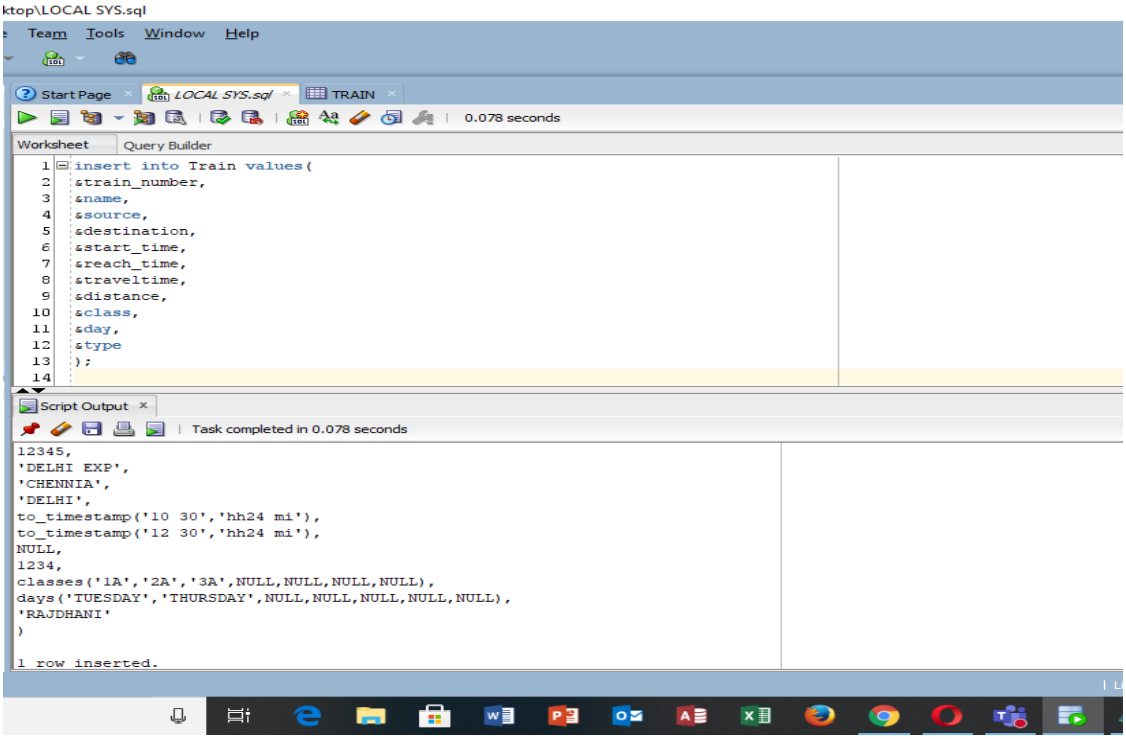
REG.NO. : 19BIT0206

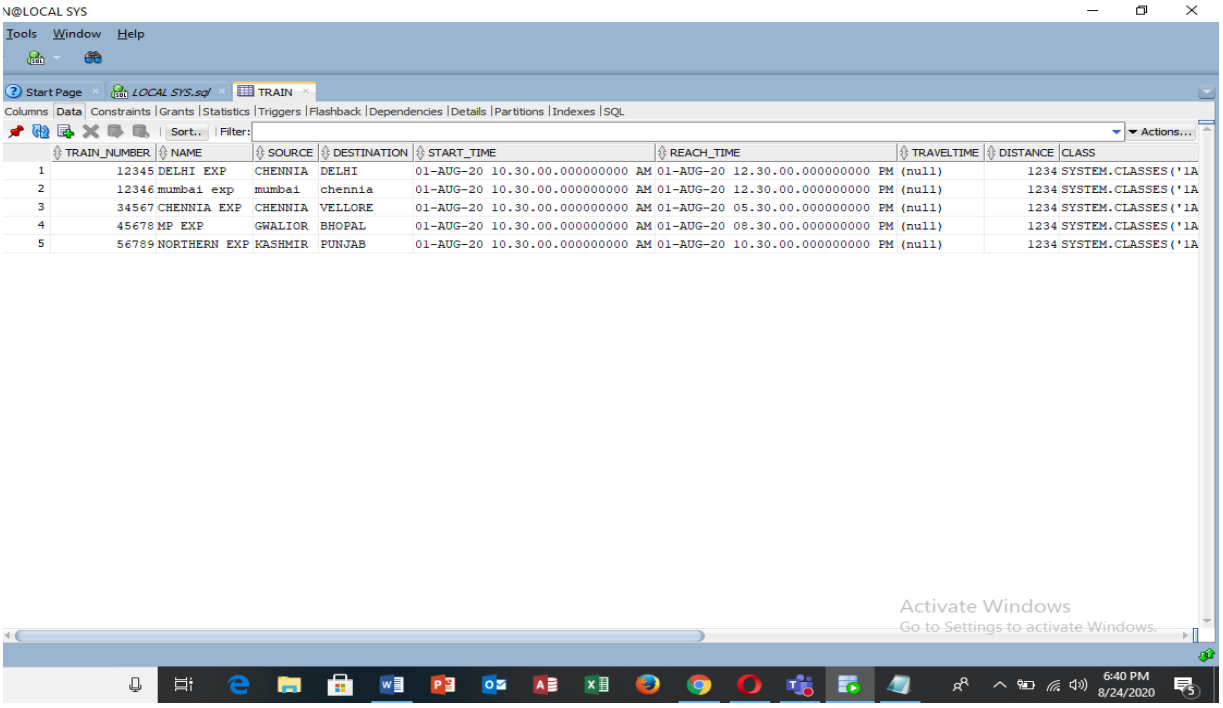
1. Create all the tables specified above. Make underlined columns as primary key.(use number, number(m,n), varchar(n), date, time, timestamp datatypes appropriately) (Low Level) Insert atleast 5 rows to each table. (Check www.irctc.co.in website for actual data)

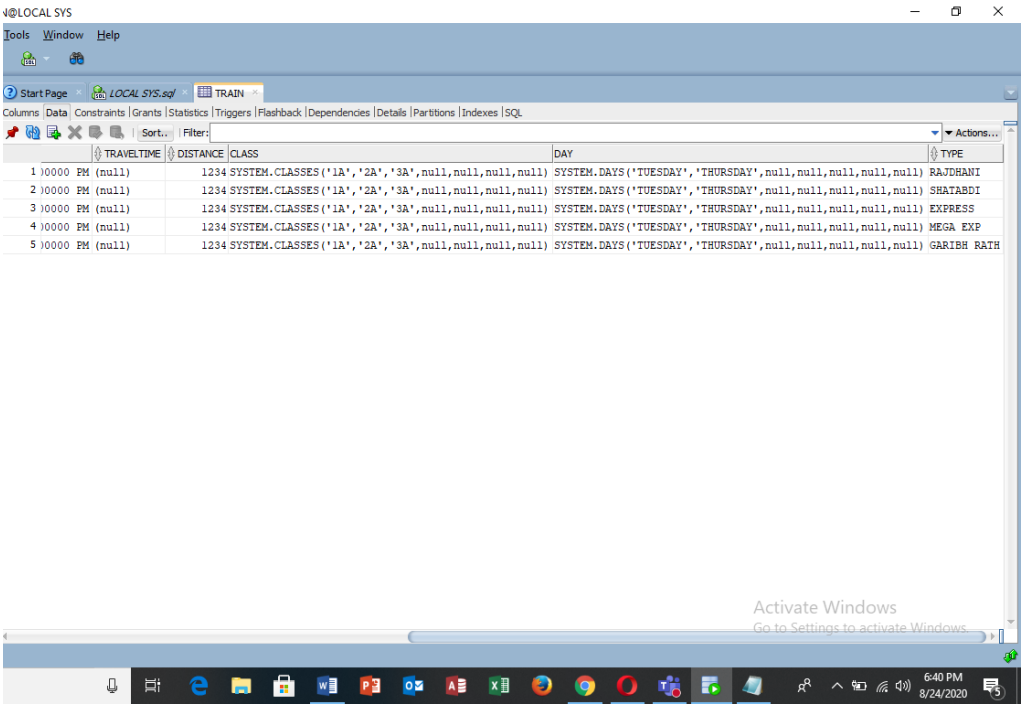
1. Use Interactive insertion for inserting rows to the table.

2. Use ADT(varray) for class and days column in Train table.

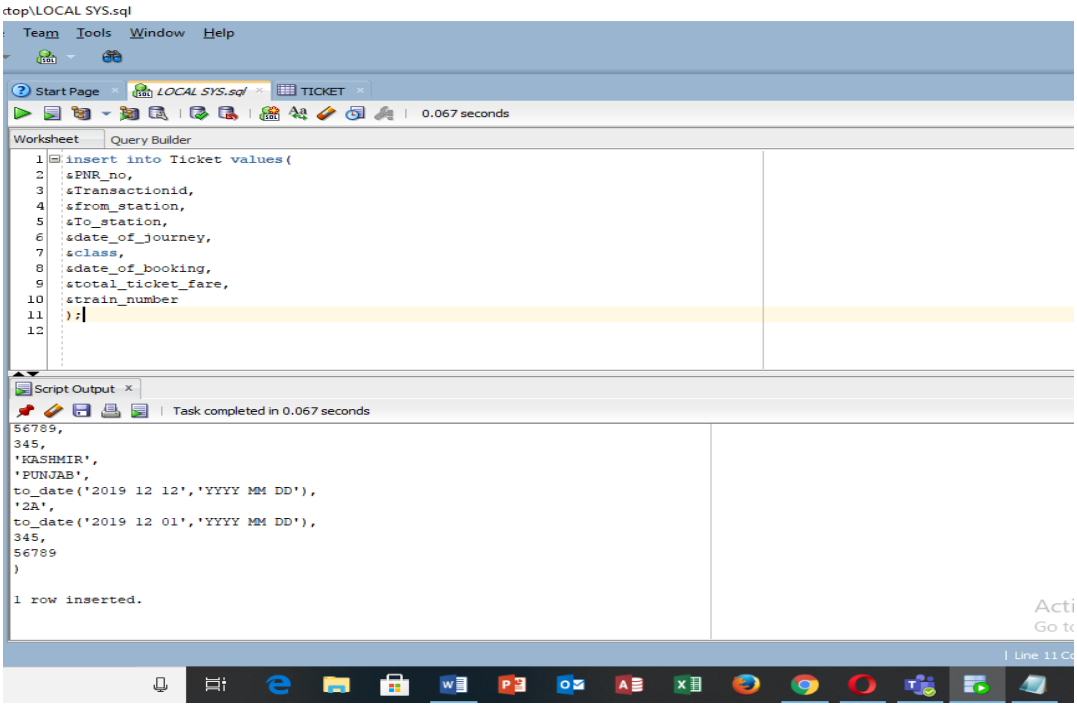
TRAIN TABLE:


ktop\LOCAL SYS.sql
Team Tools Window Help
Start Page LOCAL SYS.sql TRAIN
0.078 seconds
Worksheet Query Builder
insert into Train values(
&train_number,
&name,
&source,
&destination,
&start_time,
&reach_time,
&traveltime,
&distance,
&class,
&day,
&type
);
Script Output
Task completed in 0.078 seconds
12345,
'DELHI EXP',
'CHENNIA',
'DELHI',
to_timestamp('10 30','hh24 mi'),
to_timestamp('12 30','hh24 mi'),
NULL,
1234,
classes('1A','2A','3A',NULL,NULL,NULL,NULL),
days('TUESDAY','THURSDAY',NULL,NULL,NULL,NULL,NULL),
'RAJDHANI'
)
1 row inserted.


N@LOCAL SYS
Tools Window Help
Start Page LOCAL SYS.sql TRAIN
Columns Data Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL
Sort.. Filter: Actions...
TRAIN_NUMBER NAME SOURCE DESTINATION START_TIME REACH_TIME TRAVELTIME DISTANCE CLASS
1 12345 DELHI EXP CHENNIA DELHI 01-AUG-20 10.30.00.000000000 AM 01-AUG-20 12.30.00.000000000 PM (null) 1234 SYSTEM.CLASSES('1A
2 12346 mumbai exp mumbai chennia 01-AUG-20 10.30.00.000000000 AM 01-AUG-20 12.30.00.000000000 PM (null) 1234 SYSTEM.CLASSES('1A
3 34567 CHENNIA EXP CHENNIA VELLORE 01-AUG-20 10.30.00.000000000 AM 01-AUG-20 05.30.00.000000000 PM (null) 1234 SYSTEM.CLASSES('1A
4 45678 MP EXP GWALIOR BHOPAL 01-AUG-20 10.30.00.000000000 AM 01-AUG-20 08.30.00.000000000 PM (null) 1234 SYSTEM.CLASSES('1A
5 56789 NORTHERN EXP KASHMIR PUNJAB 01-AUG-20 10.30.00.000000000 AM 01-AUG-20 10.30.00.000000000 PM (null) 1234 SYSTEM.CLASSES('1A
Activate Windows
Go to Settings to activate Windows.
6:40 PM
8/24/2020



TICKET TABLE:



KET@LOCAL SYS

Tools Window Help

Start Page | LOCAL SYS.sql | TICKET

Columns | Data | Constraints | Grants | Statistics | Triggers | Flashback | Dependencies | Details | Partitions | Indexes | SQL

Sort... | Filter:

	PNR_NO	TRANSACTIONID	FROM_STATION	TO_STATION	DATE_OF_JOURNEY	CLASS	DATE_OF_BOOKING	TOTAL_TICKET_FARE	TRAIN_NUMBER
1	12345	1234	chennia	delhi	17-DEC-15	1A	15-DEC-15	123	12345
2	23456	234	MUMBAI	CHENNIA	12-DEC-19	2A	08-DEC-19	123	12346
3	34567	345	CHENNIA	VELLORE	12-DEC-19	3A	10-DEC-19	125	34567
4	45678	456	GWALIOR	BHOPAL	12-DEC-19	1A	02-DEC-19	1266	45678
5	56789	345	KASHMIR	PUNJAB	12-DEC-19	2A	01-DEC-19	345	56789

PASSENGER TABLE:

op\LOCAL SYS.sql

Team Tools Window Help

Start Page | LOCAL SYS.sql | PASSENGER

0.027 seconds

Worksheet | Query Builder

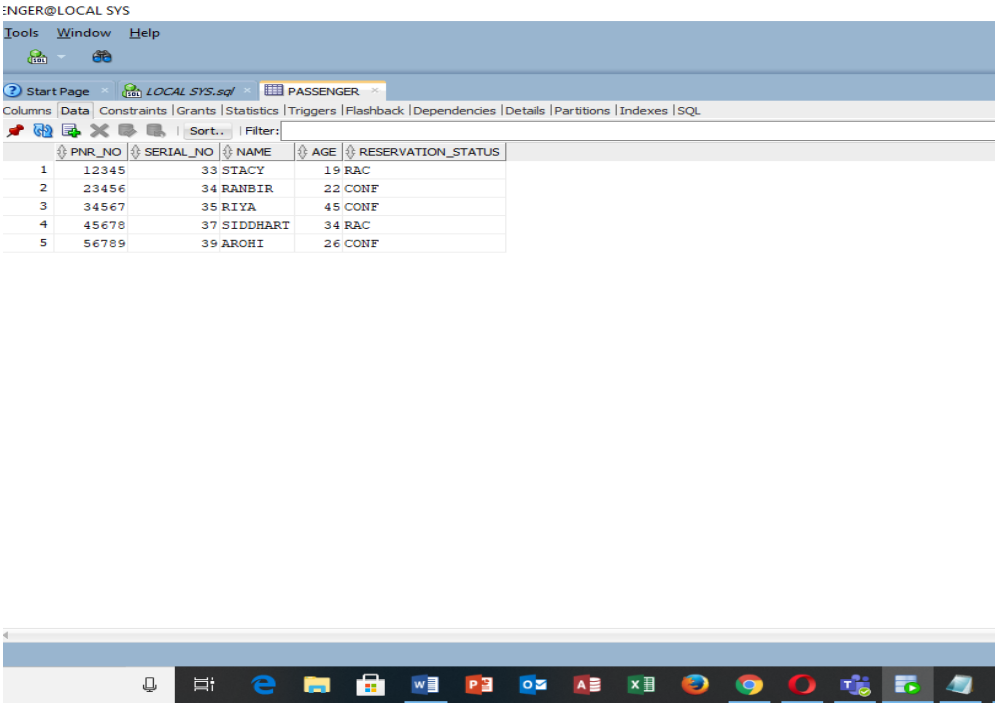
```
1  insert into Passenger VALUES(
2  &PNR_no,
3  &Serial_no,
4  &Name,
5  &Age,
6  &Reservation_status
7  );
8
9
```

Script Output

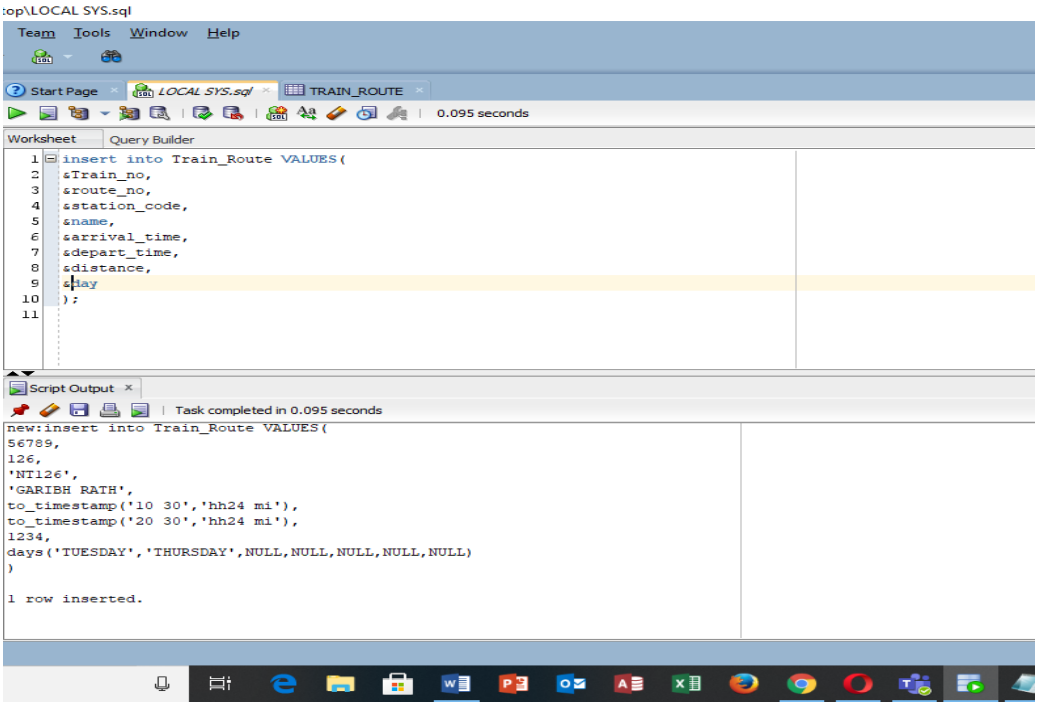
Task completed in 0.027 seconds

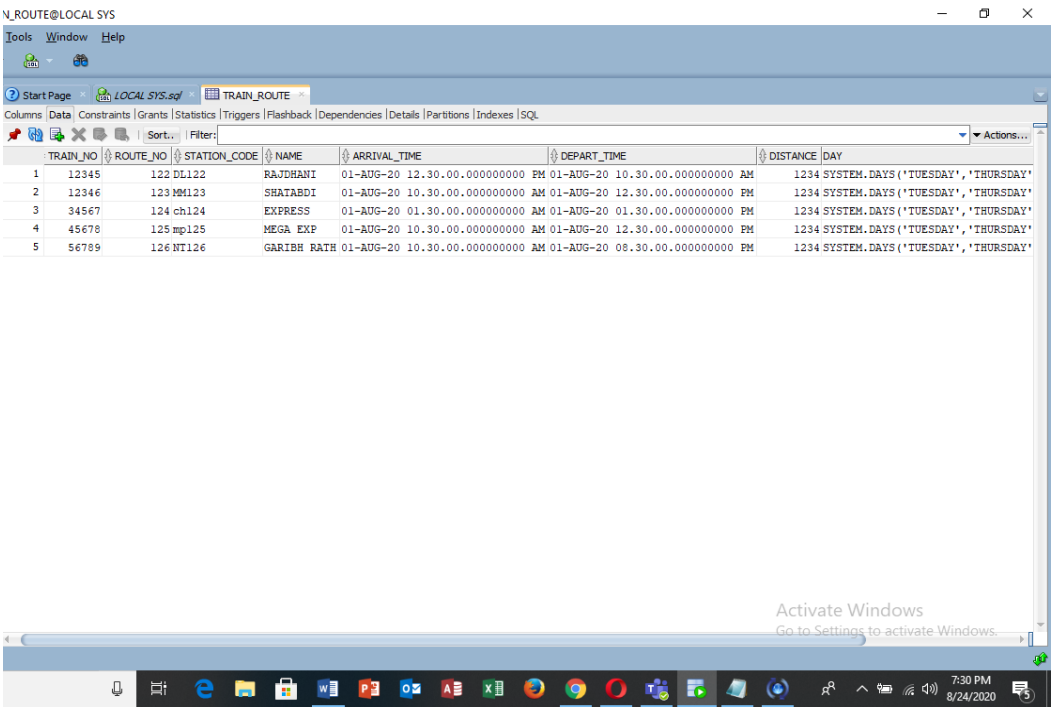
```
&Age,
&Reservation_status
)
new:insert into Passenger VALUES(
56789,
39,
'AROHI',
26,
'CONF'
)

1 row inserted.
```


Line 8 Colum



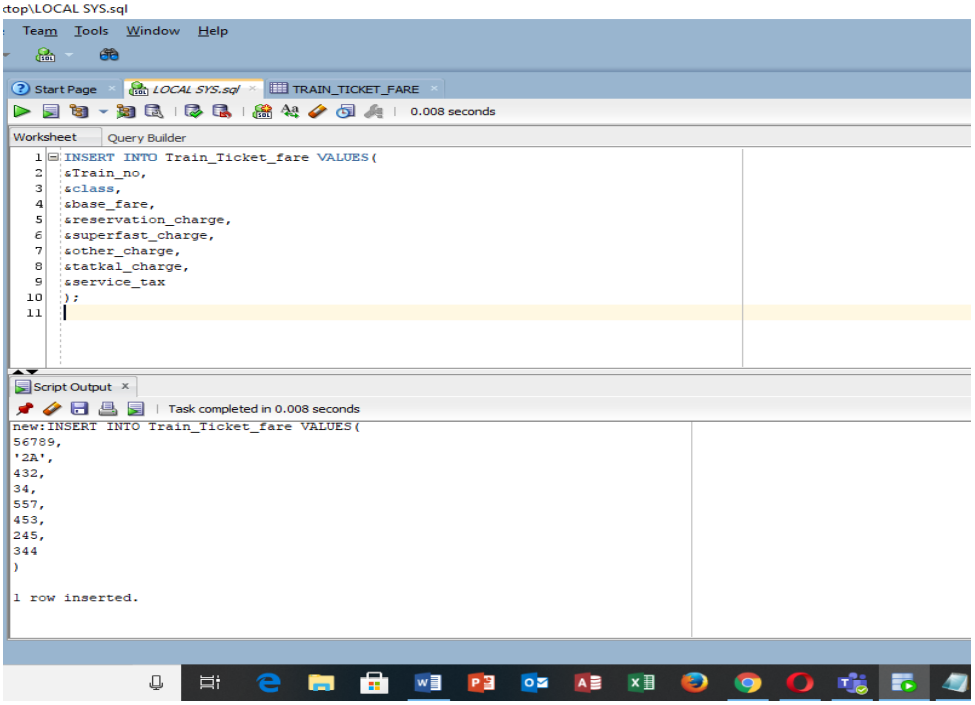
TRAIN ROUTE TABLE:



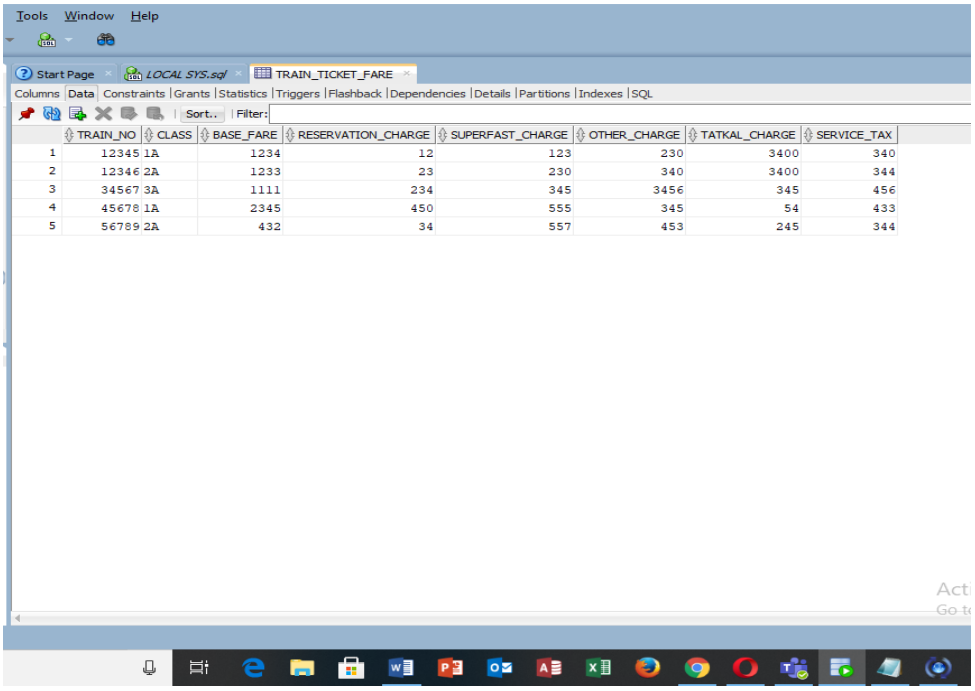


TRAIN TICKET FARE:

ctop\LOCAL SYS.sql



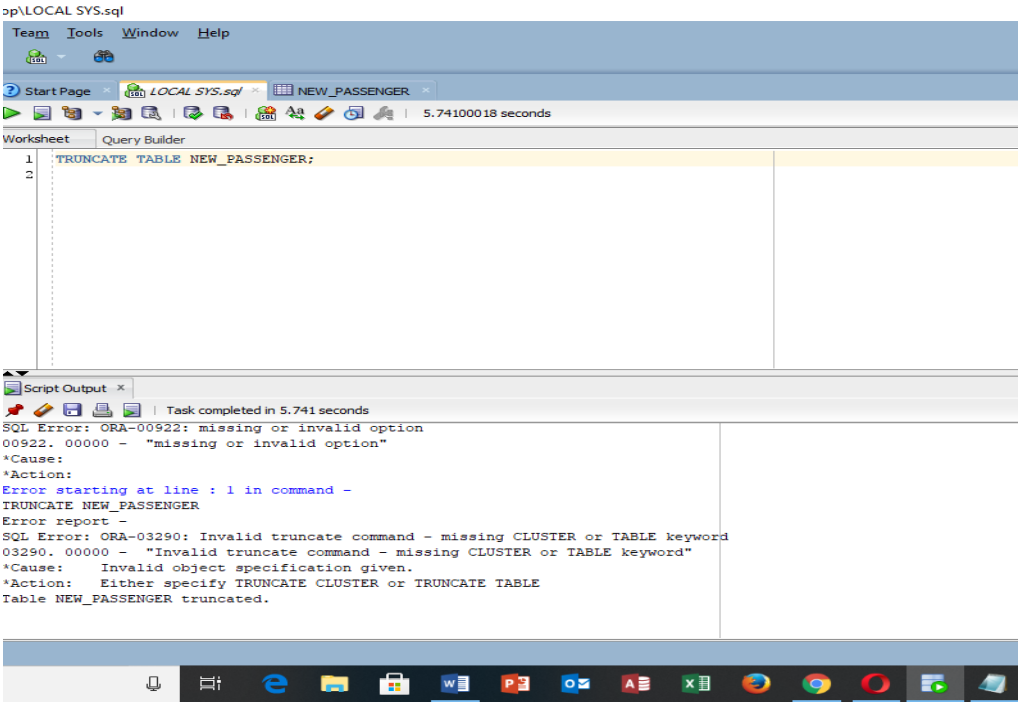
AIN_TICKET_FARE@LOCAL SYS



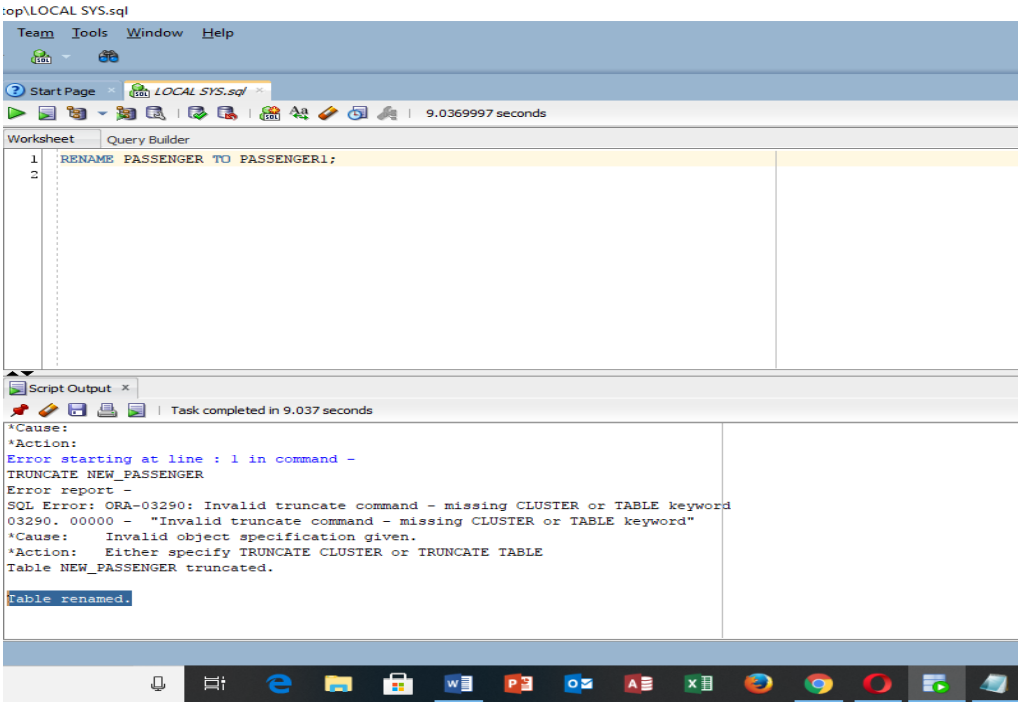
	TRAIN_NO	CLASS	BASE_FARE	RESERVATION_CHARGE	SUPERFAST_CHARGE	OTHER_CHARGE	TATKAL_CHARGE	SERVICE_TAX
1	12345	1A	1234	12	123	230	3400	340
2	12346	2A	1233	23	230	340	3400	344
3	34567	3A	1111	234	345	3456	345	456
4	45678	1A	2345	450	555	345	54	433
5	56789	2A	432	34	557	453	245	344

2. Write simple DDL/DML Queries to (Low Level)

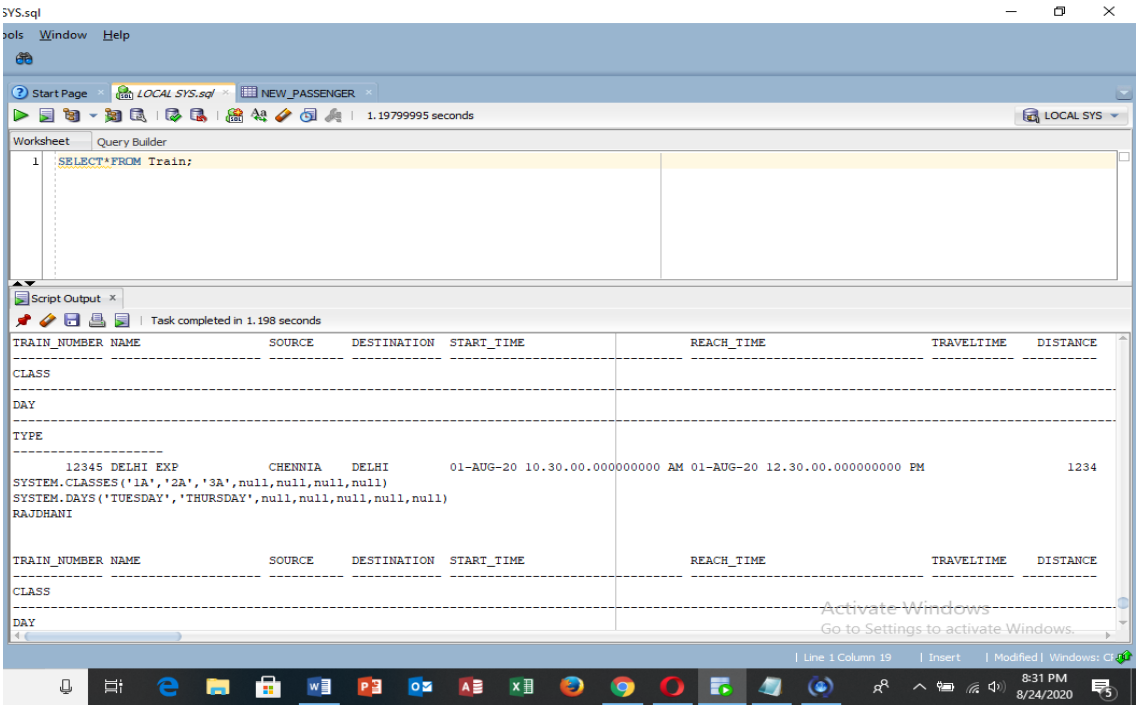
1. Remove all the rows from Passenger table permanently.



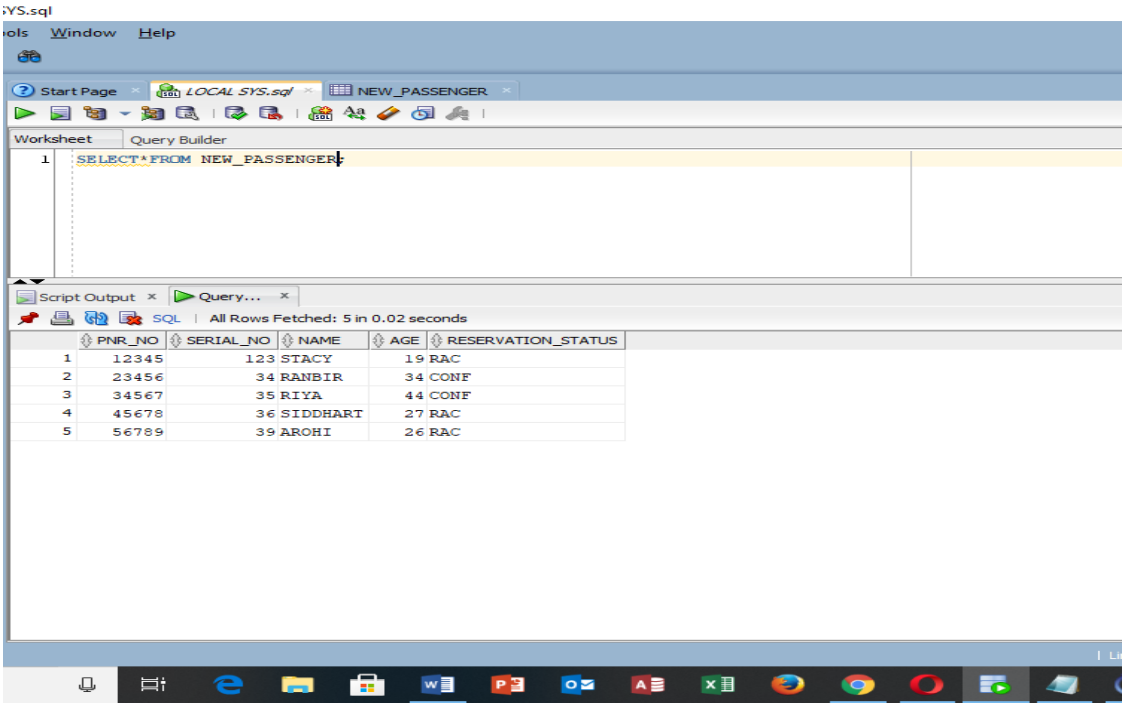
2. Change the name of the Passenger table to Passenger_Details.



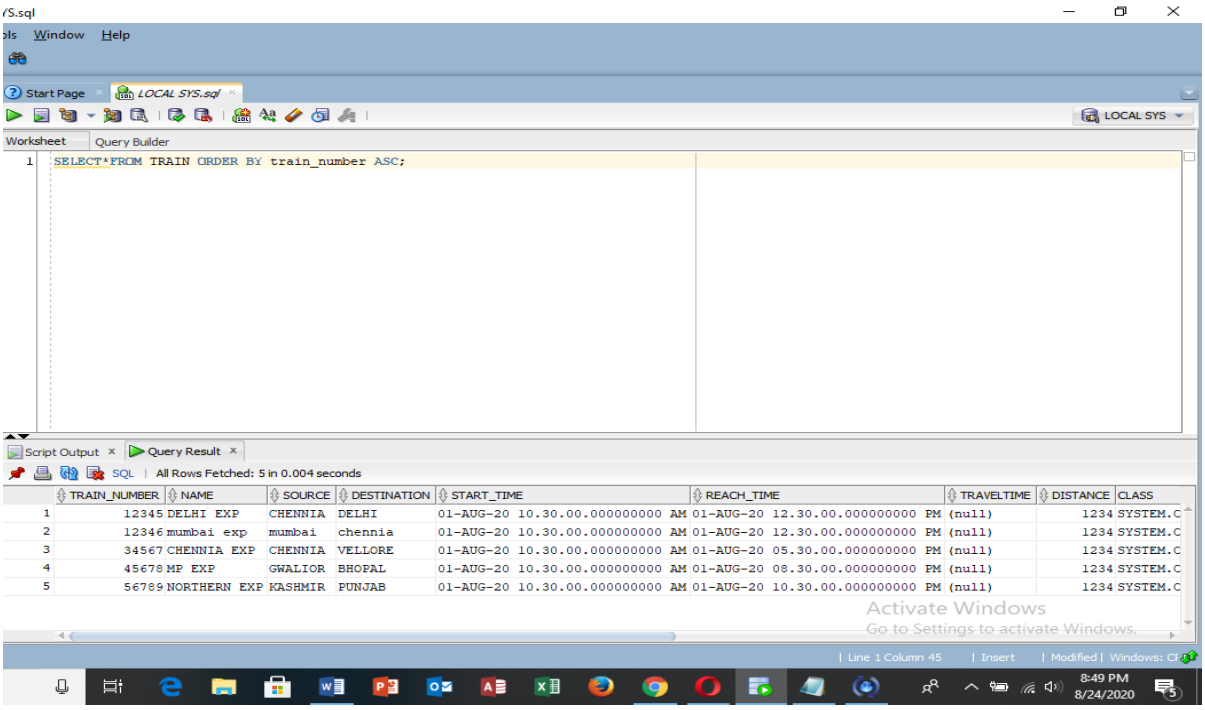
3. List all train details.



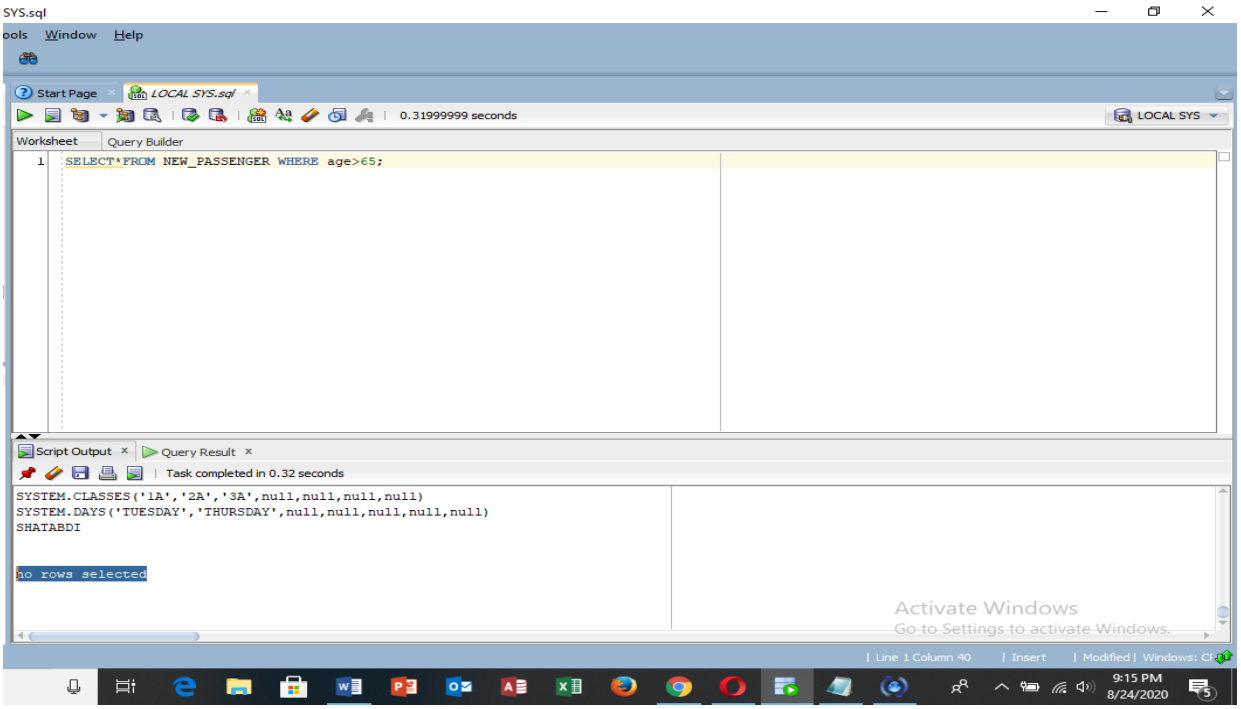
4. List all passenger details.



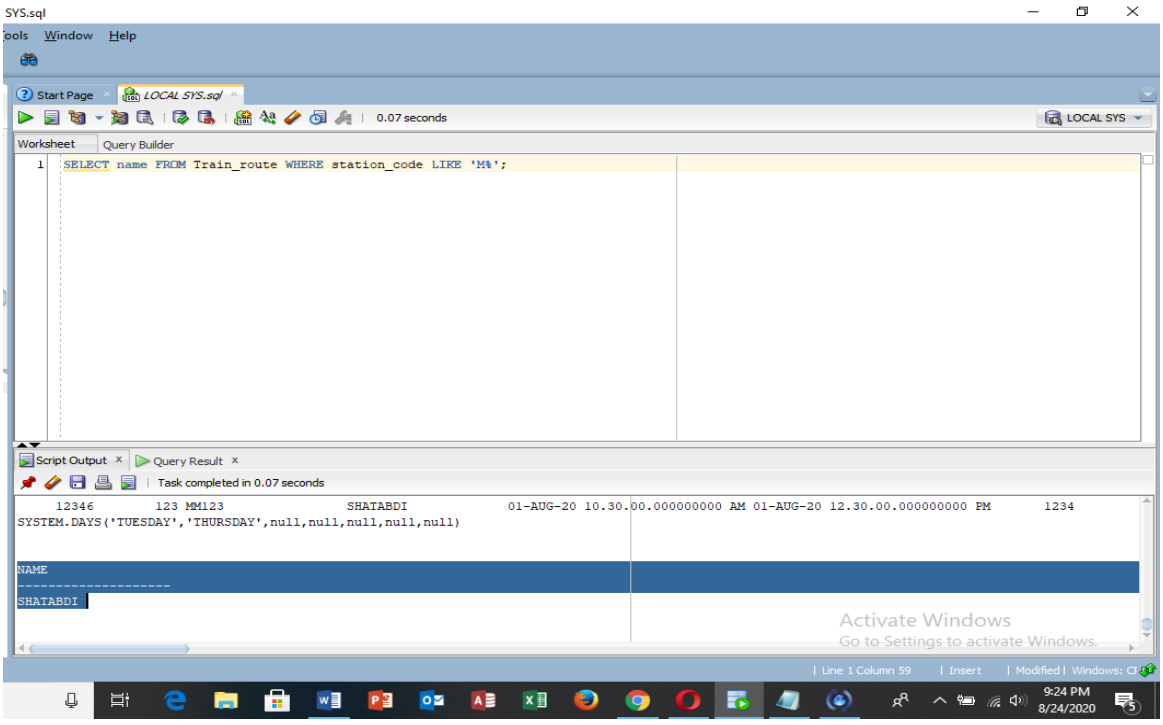
5. Give a list of trains in ascending order of number



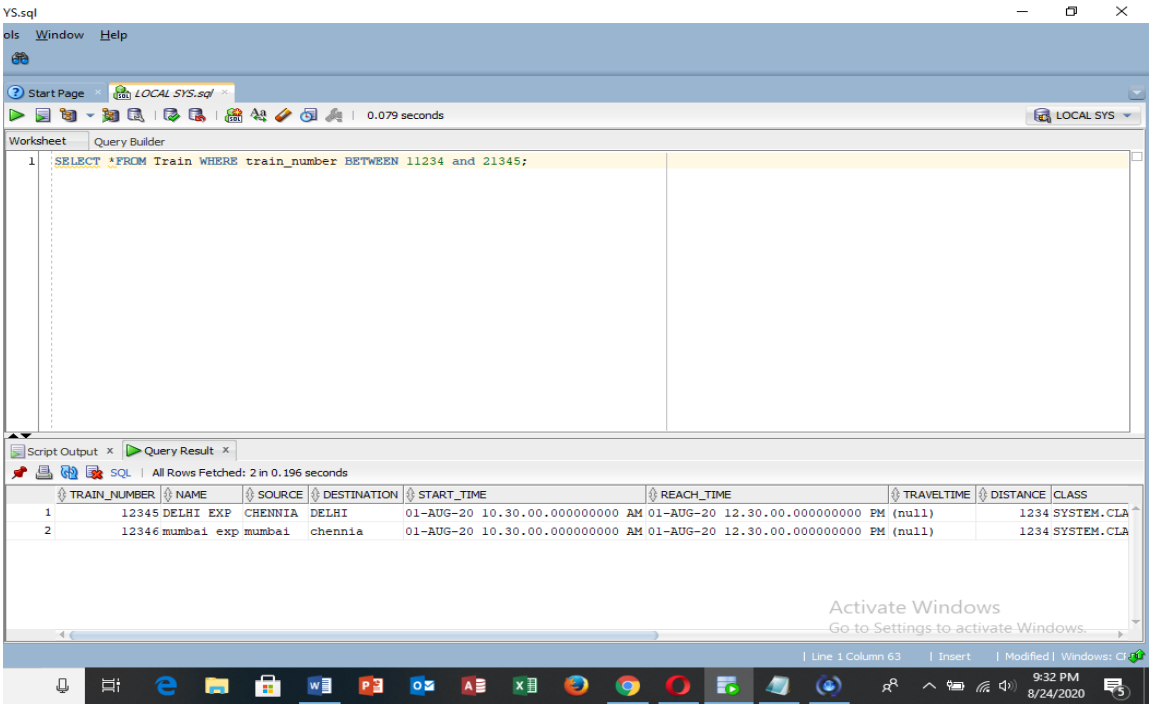
6. List the senior citizen passenger details



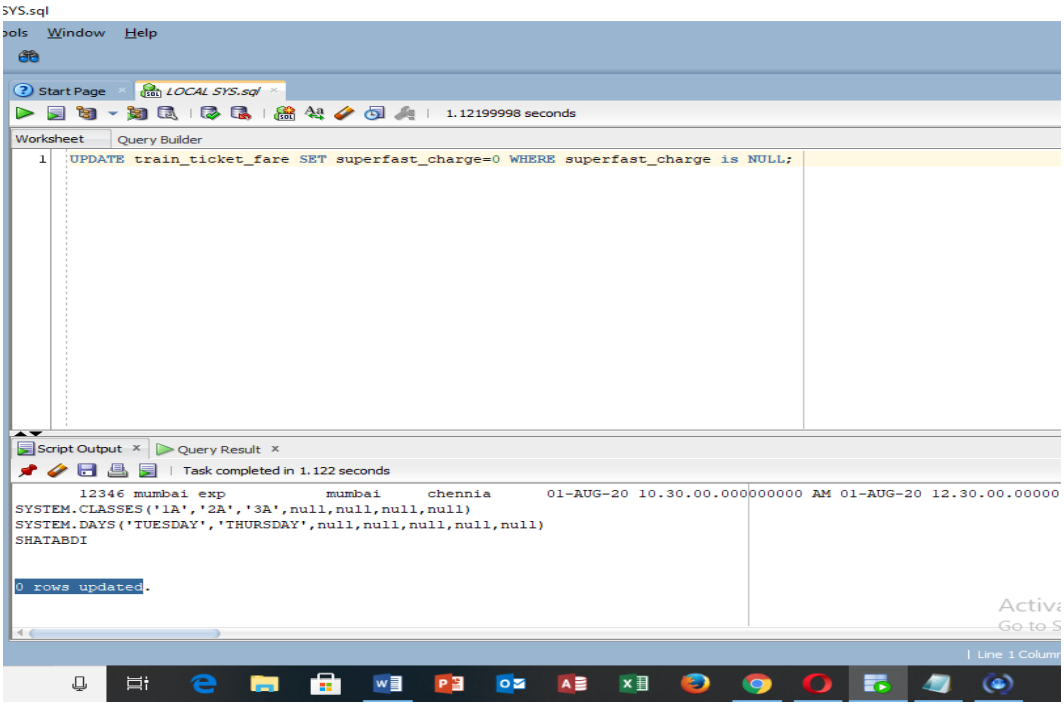
7. List the station names where code starts with 'M'



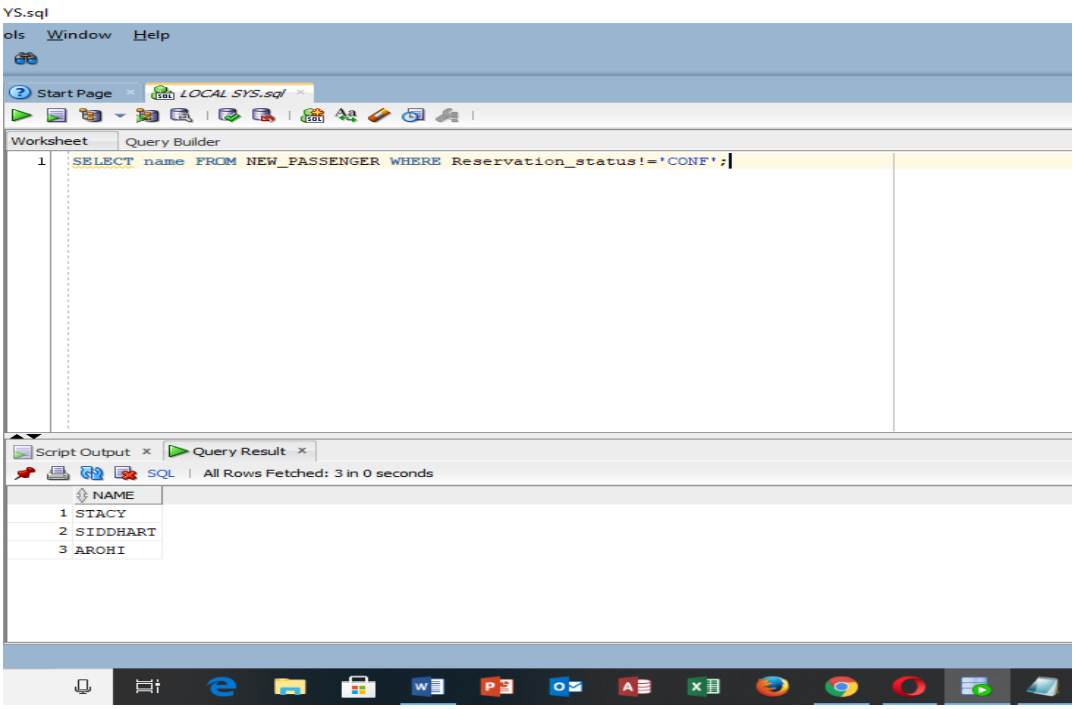
8. List the train details within a range of numbers



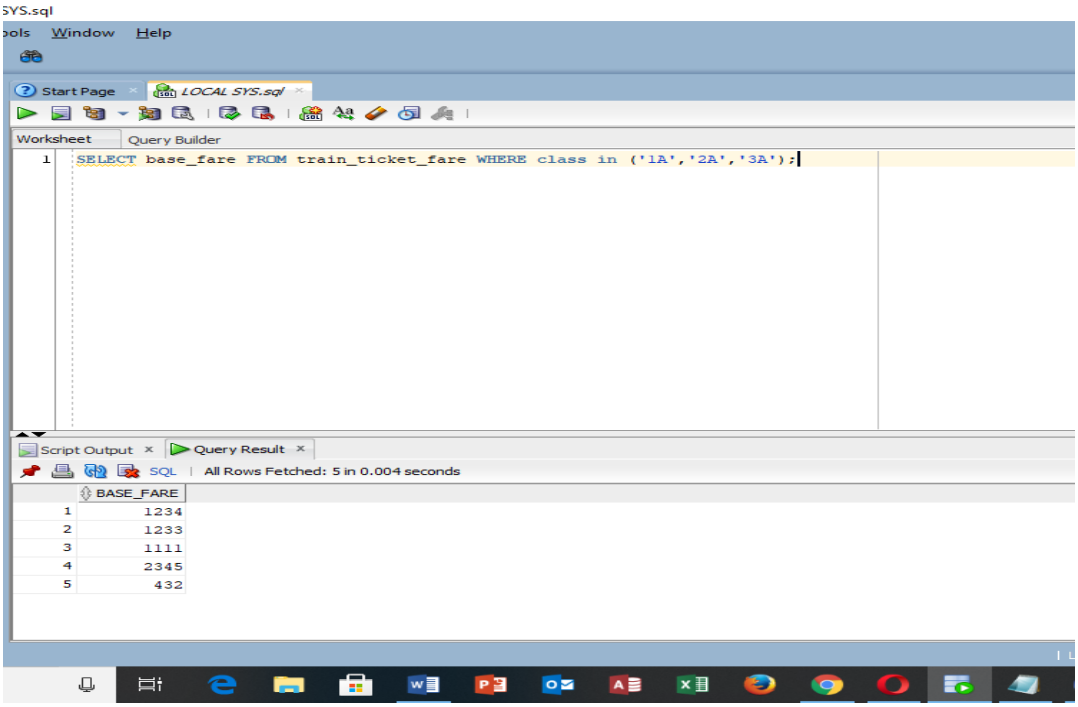
9. Change the superfast charge value in train fare as zero, if it is null.



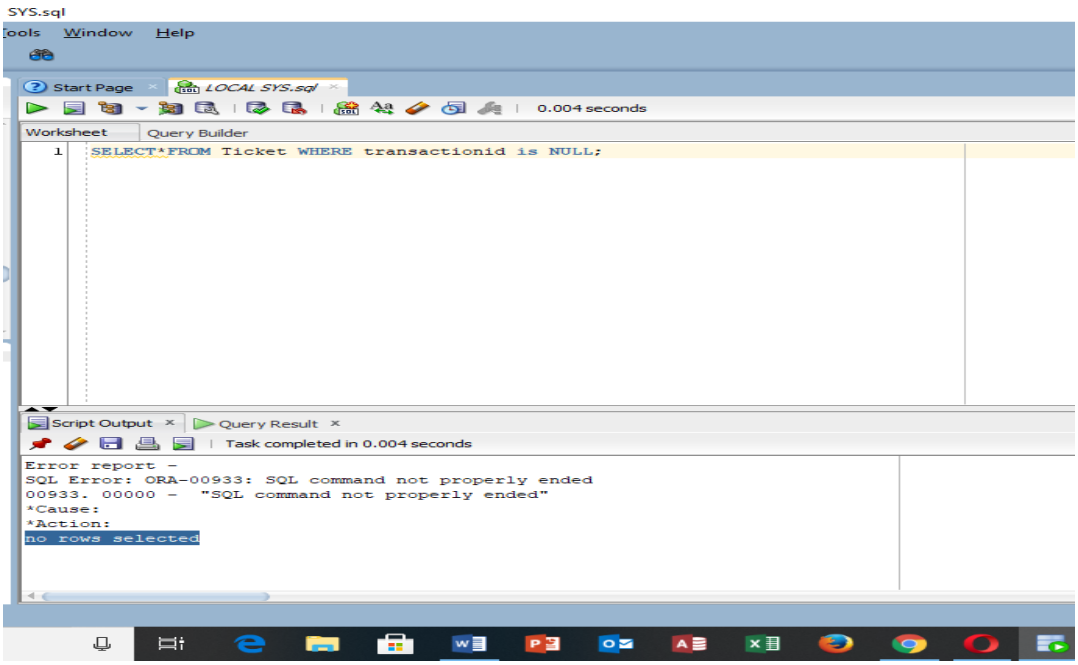
10. List the passenger names whose tickets are not confirmed.



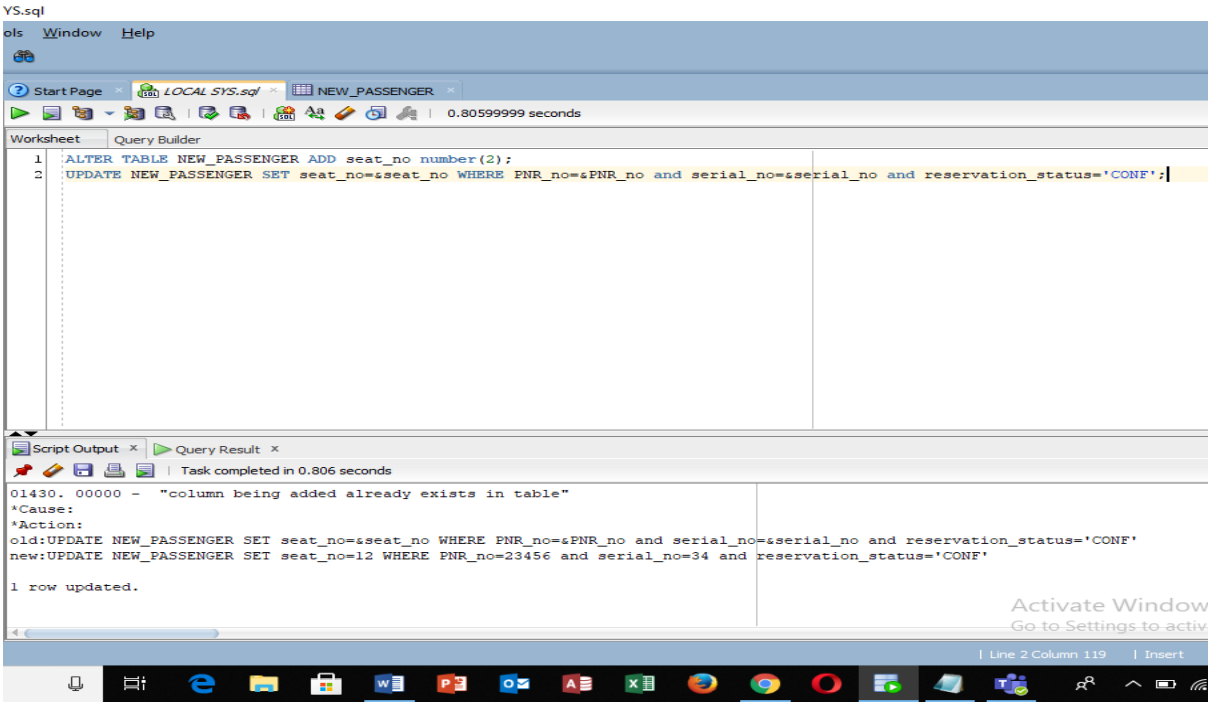
11. List the base_fare of all AC coaches available in each train.

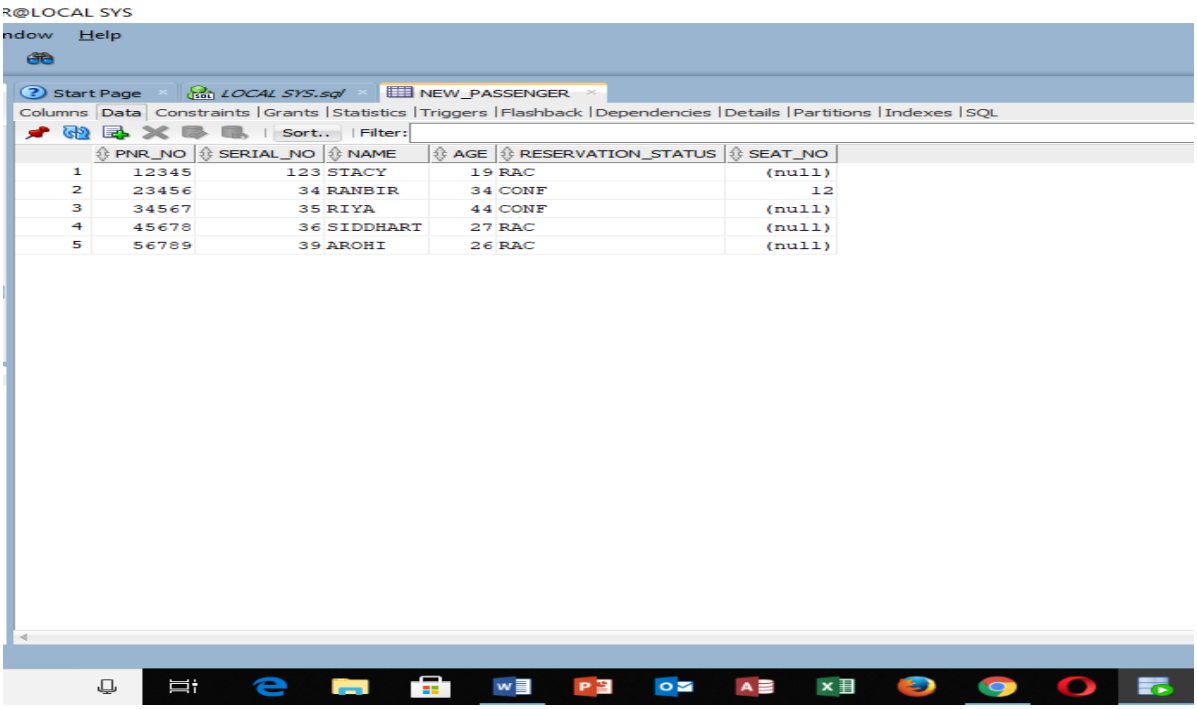


Find the ticket details where transaction id is not known.

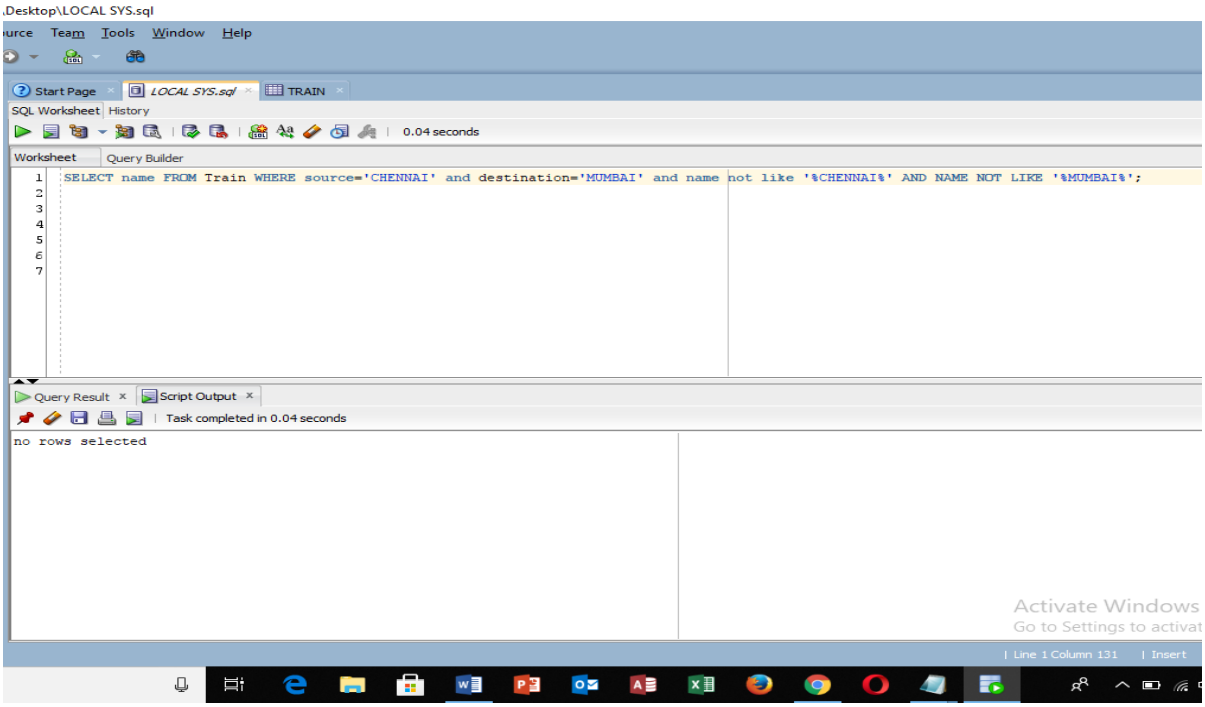


1. Use interactive update for updating the seat no for a particular PNR NO.

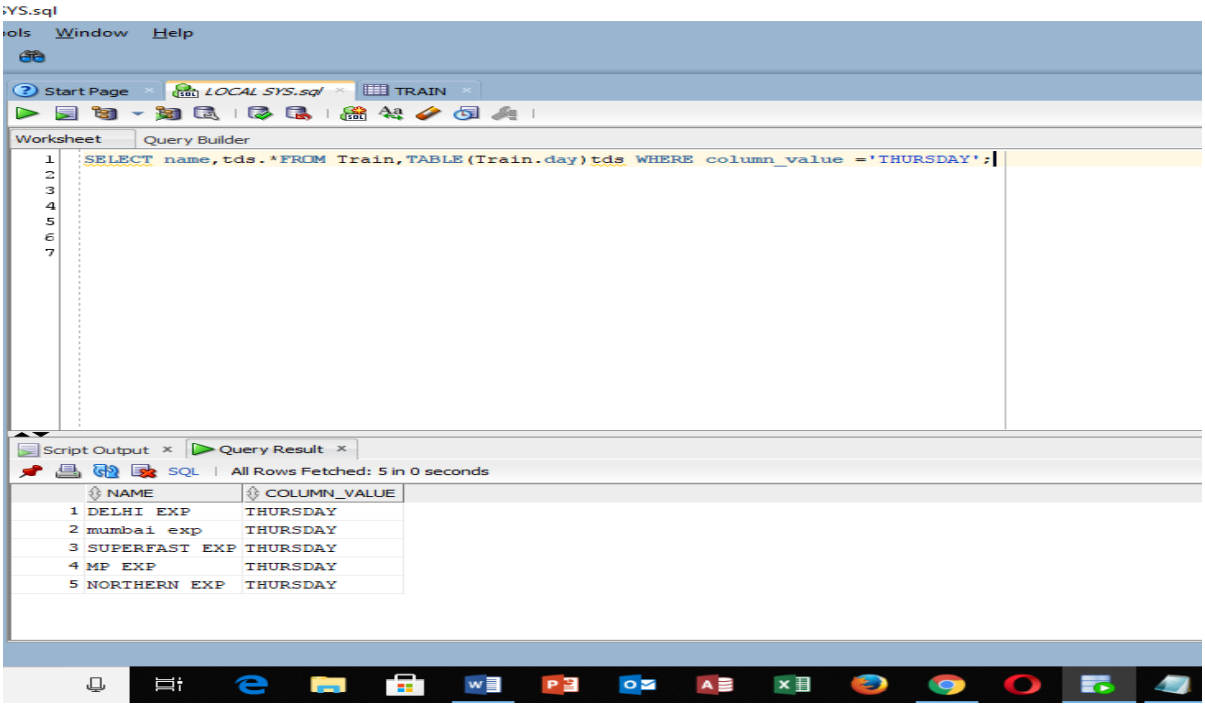




2. Find the train names that are from Chennai to Mumbai, but do not have the source or destination in its name

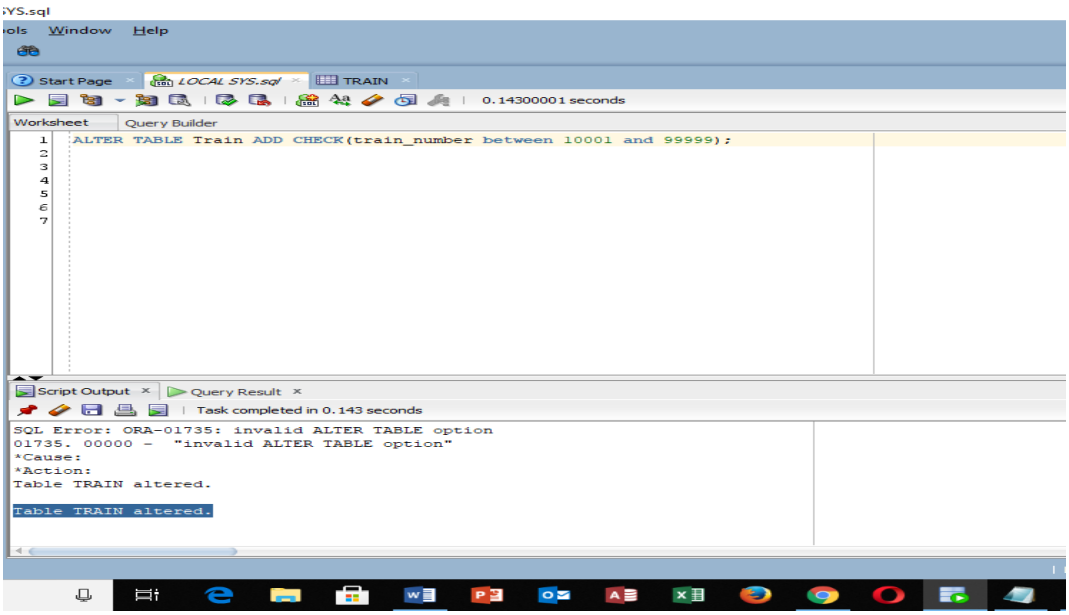


3. Find the train details that are on Thursday (Use the ADT column created)

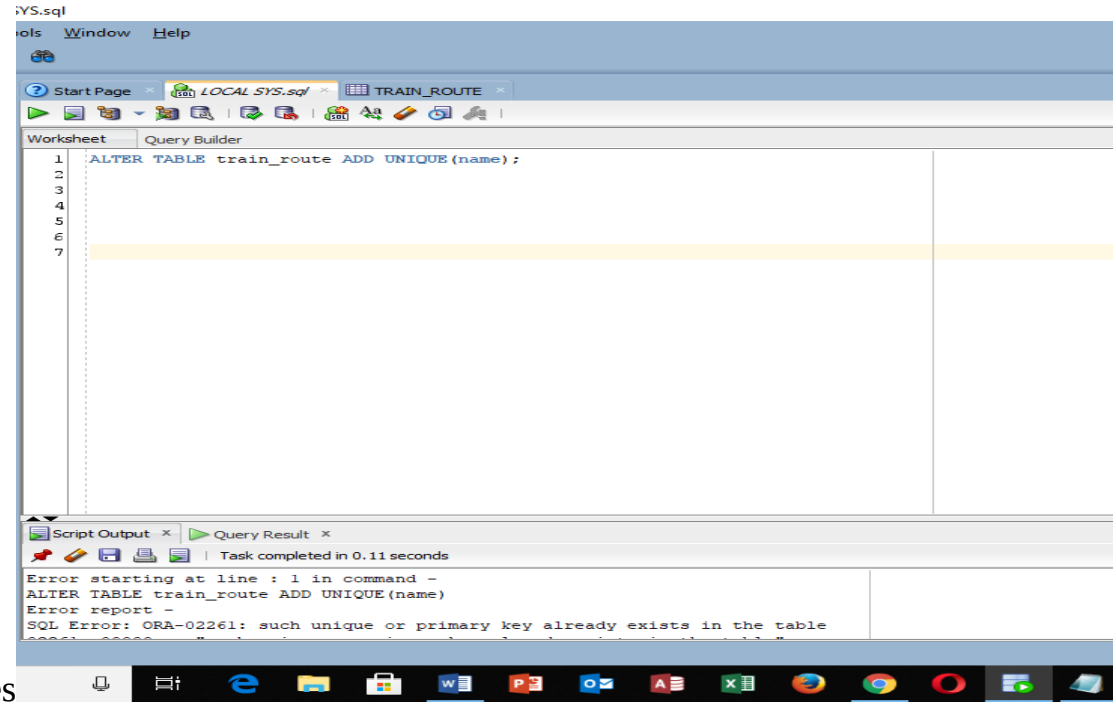


3. Create (Alter table to add constraint) the necessary foreign keys by identifying the relationships in the table. (Middle Level)

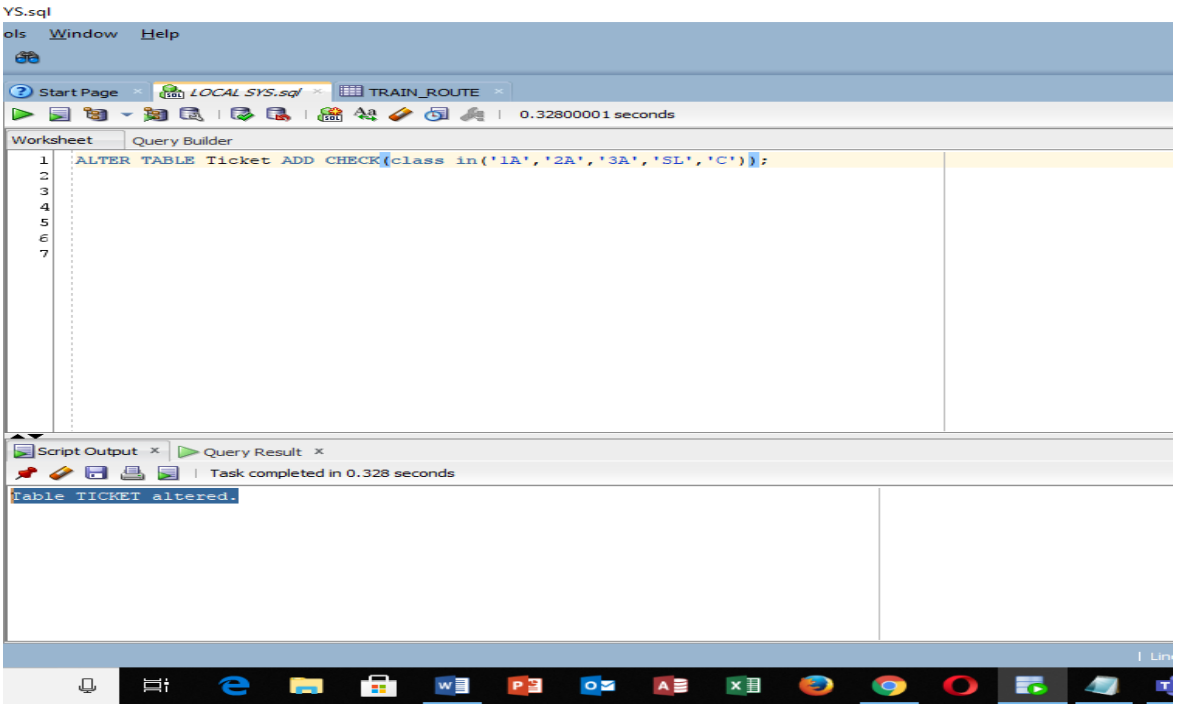
1. Add a suitable constraint to train table to always have train no in the range 10001 to 99999.



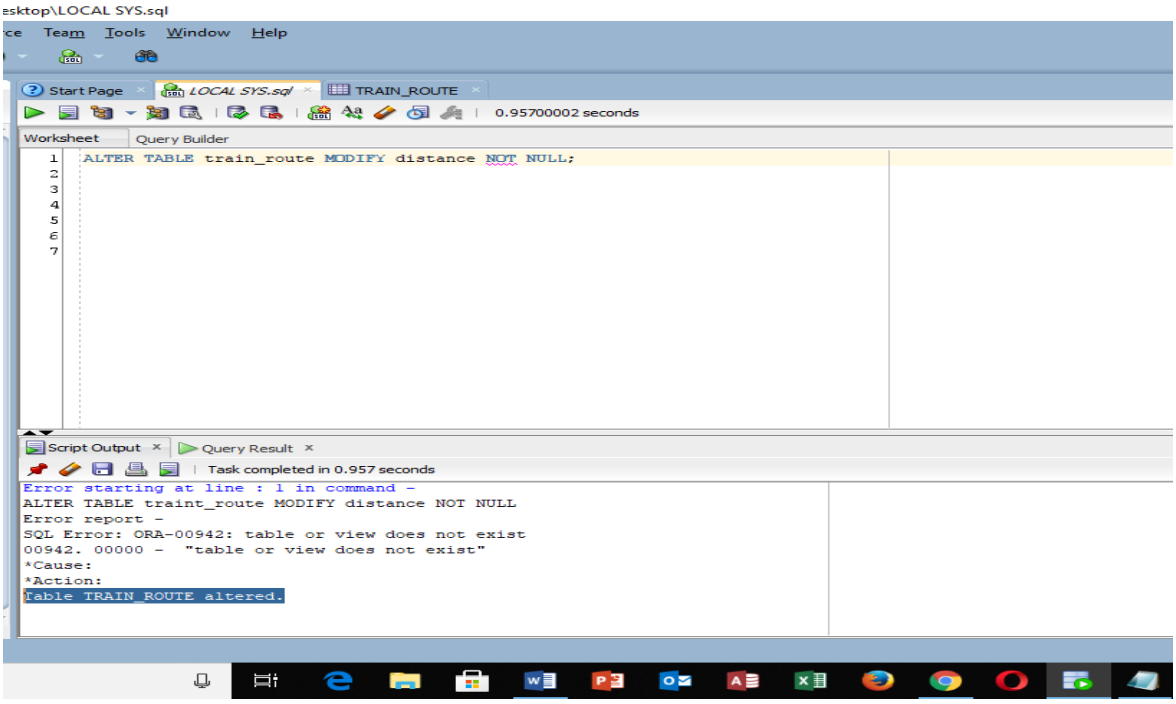
2. . Add a suitable constraint for the column of station name, so that does not take duplicates



4. Add a suitable constraint for the class column that it should take values only as 1A, 2A, 3A, SL, C.

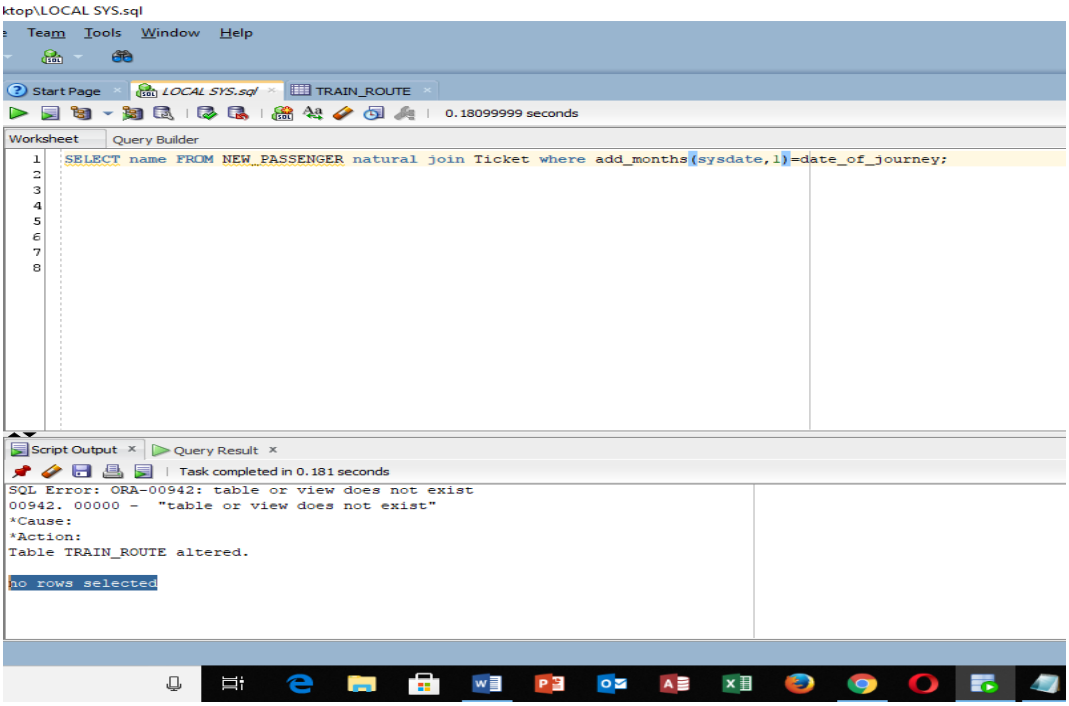


5. Add a not null constraint for the column distance in train_route.

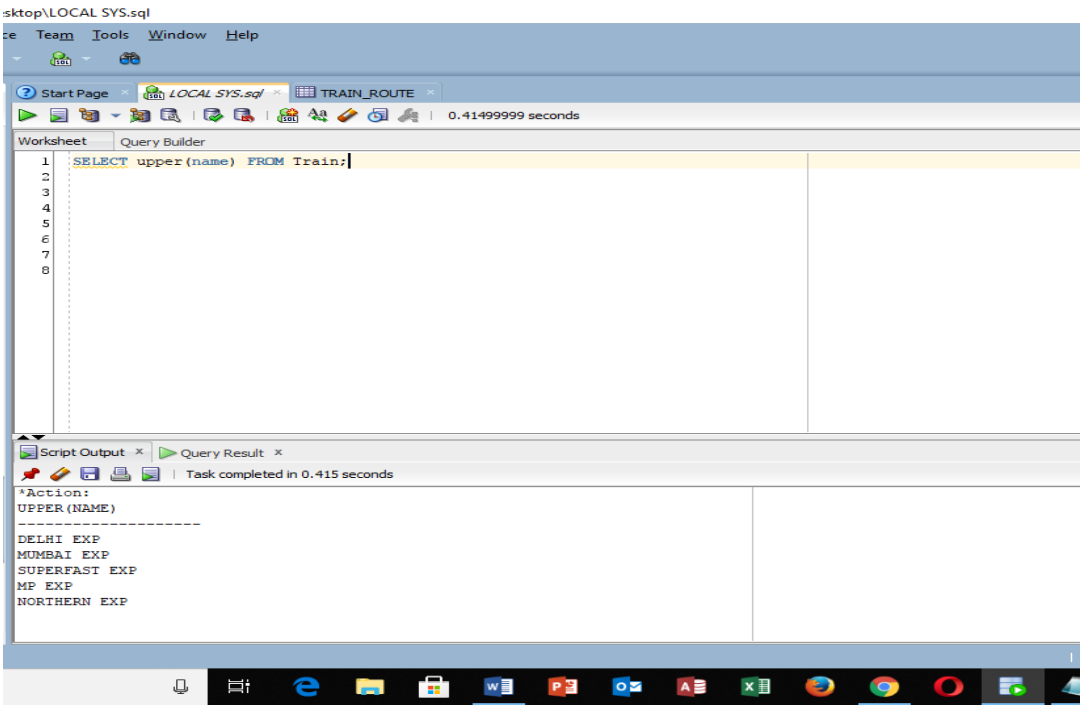


4. Use SQL PLUS functions to. (Low Level)

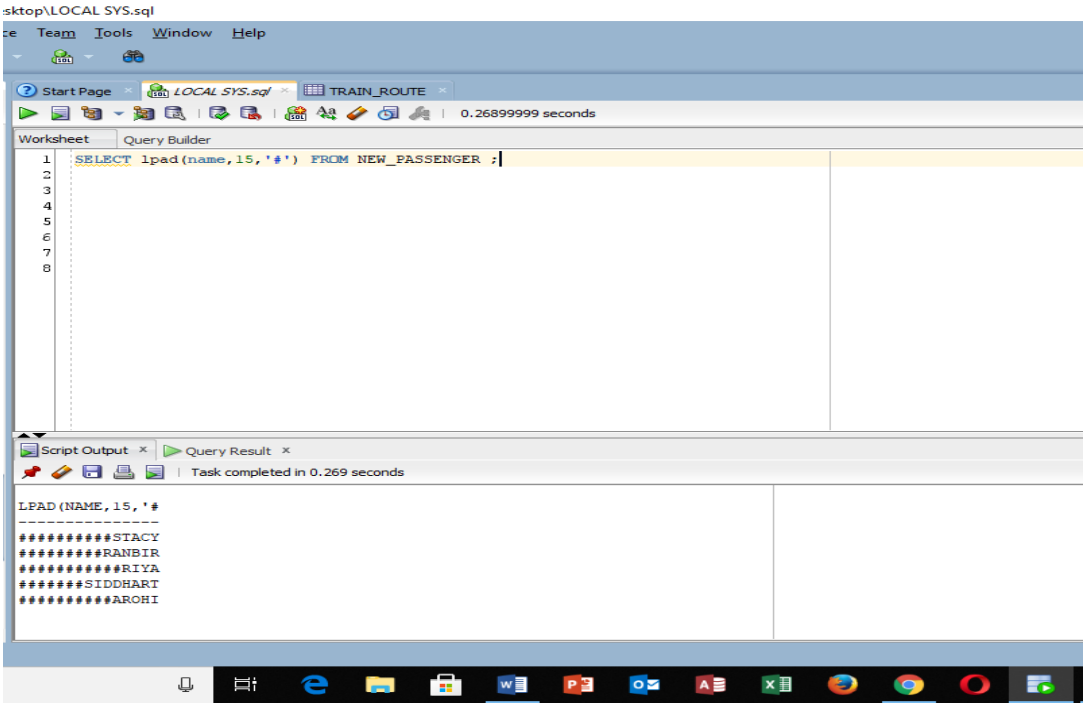
1. Find the passengers whose date of journey is one month from today.



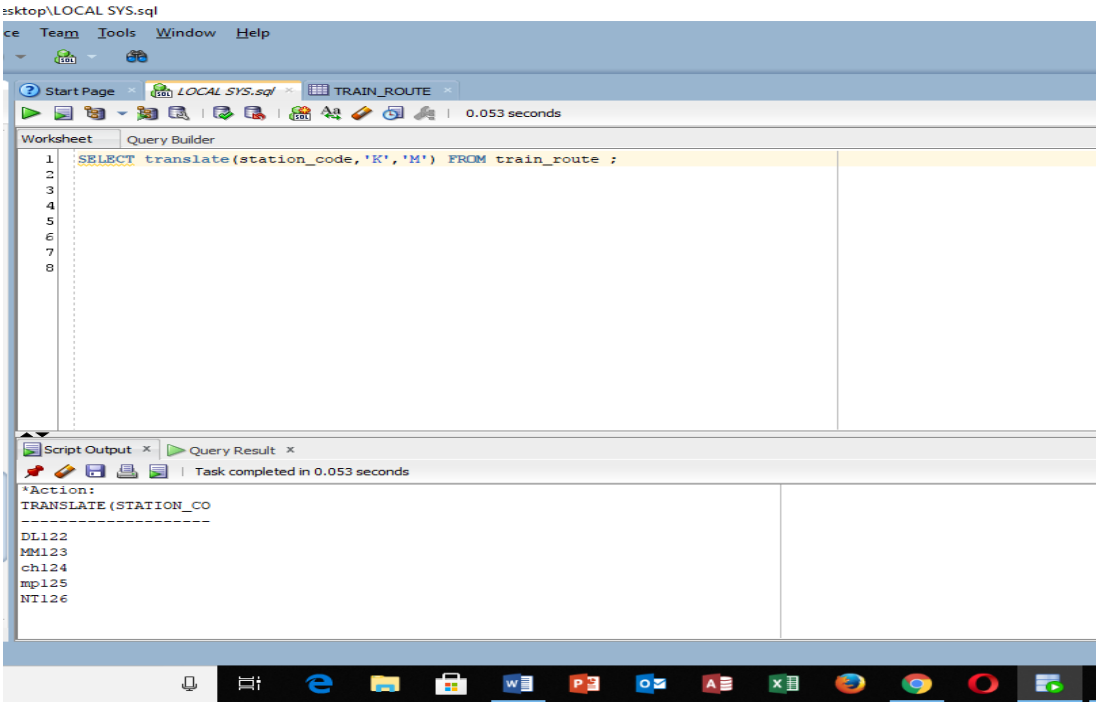
2. Print the train names in upper case.



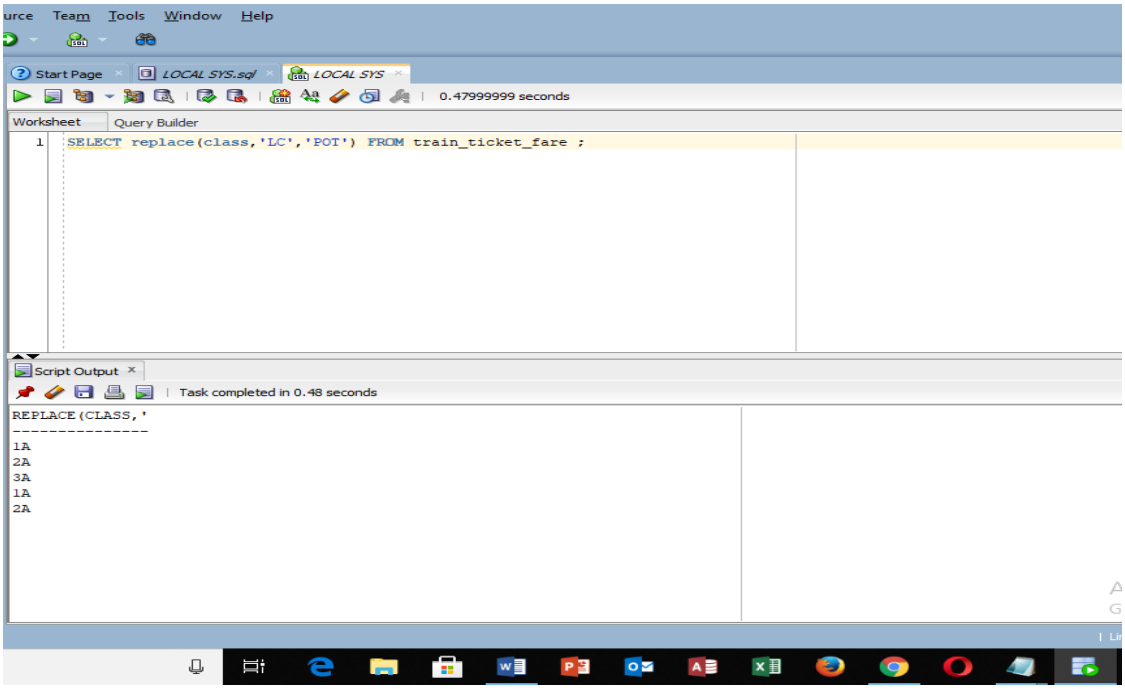
3. Print the passenger names with left padding character.



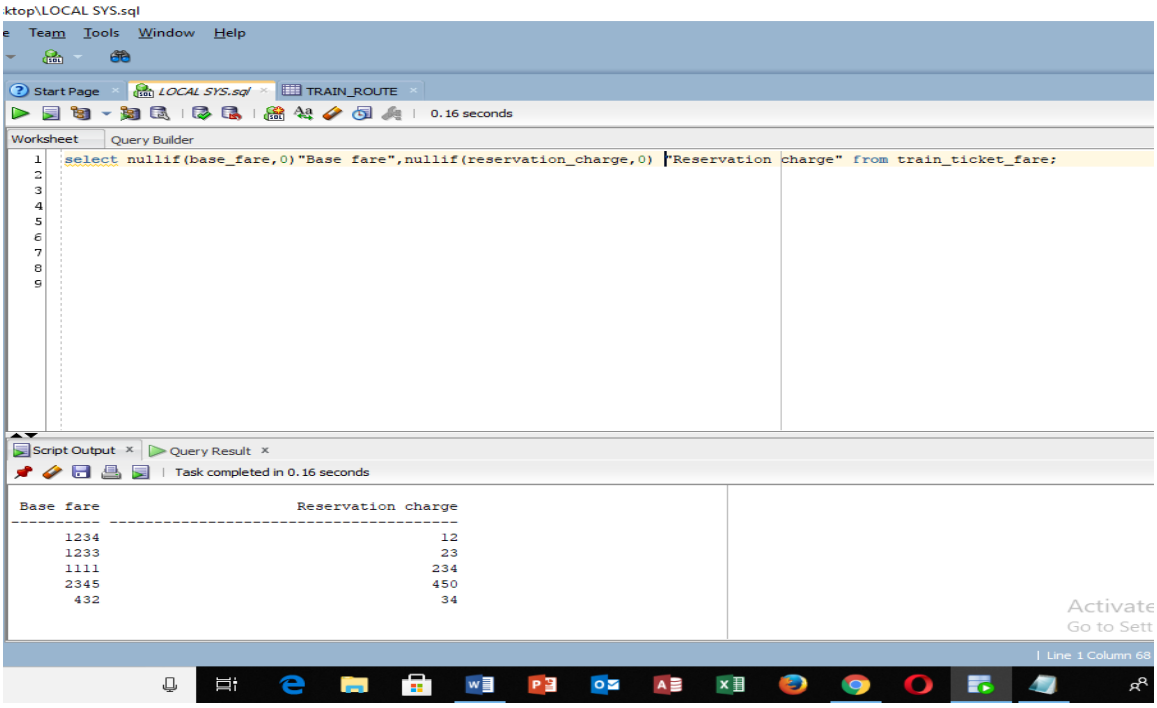
4. Print the station codes replacing K with M.



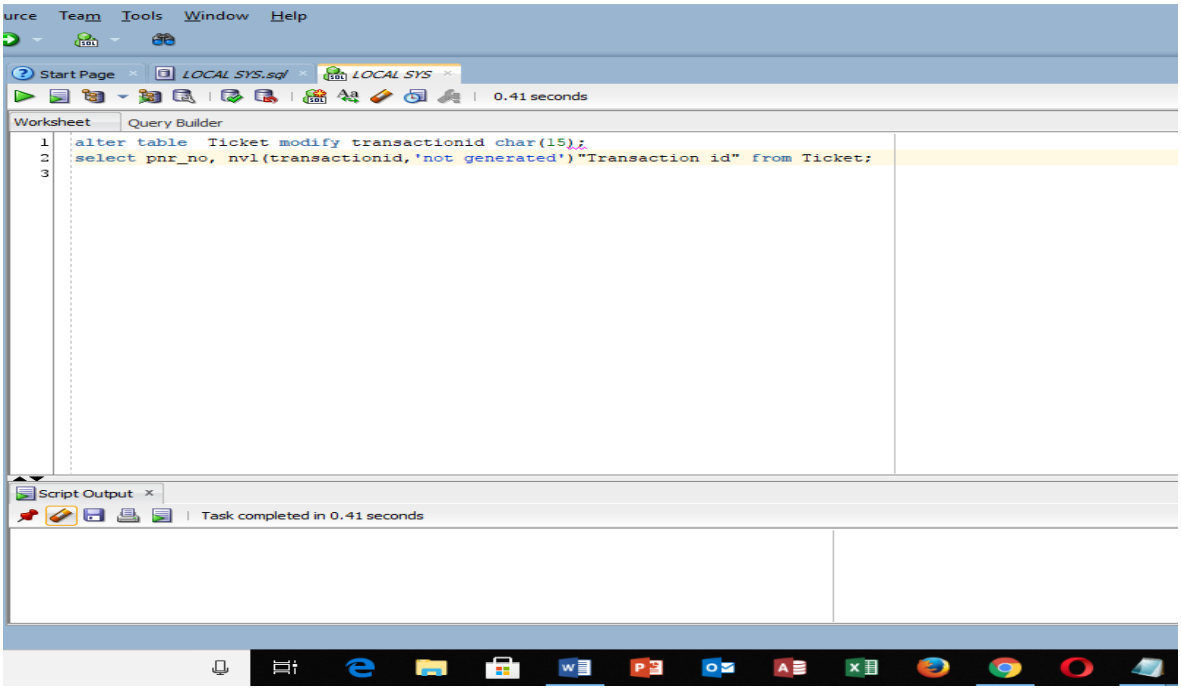
5. Translate all the LC in class column (Train_fare) to POT and display.



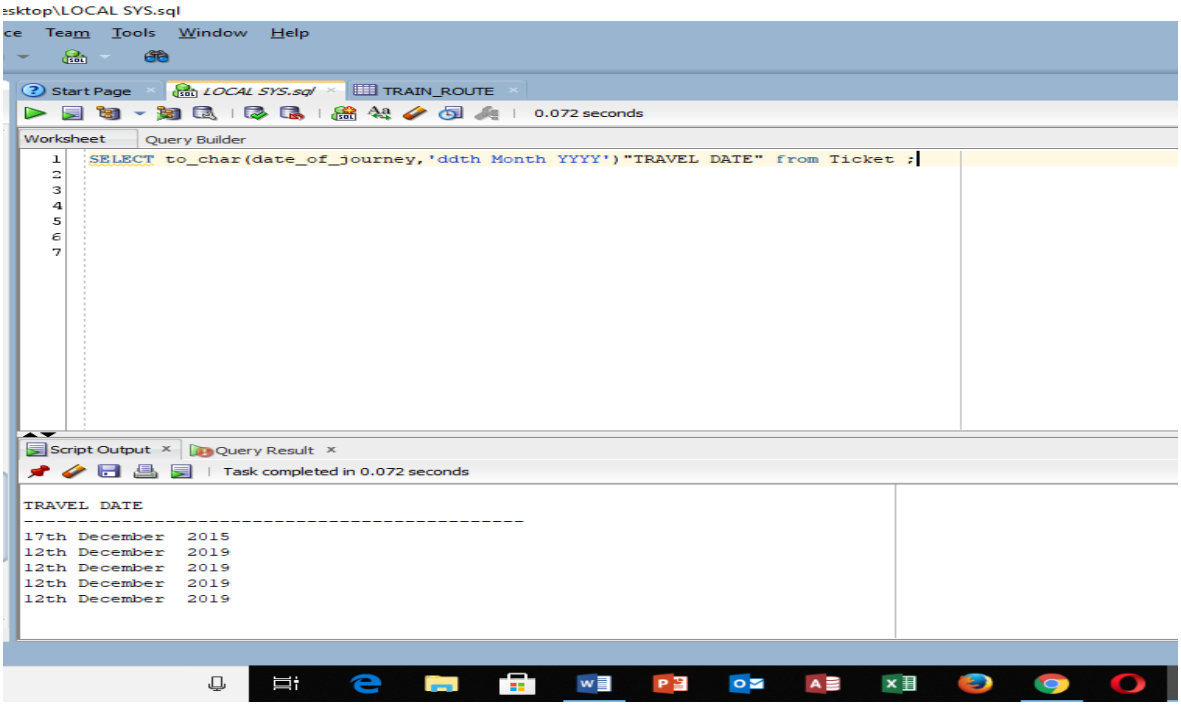
6. Display the fare details of all trains, if any value is ZERO, print as NULL value.



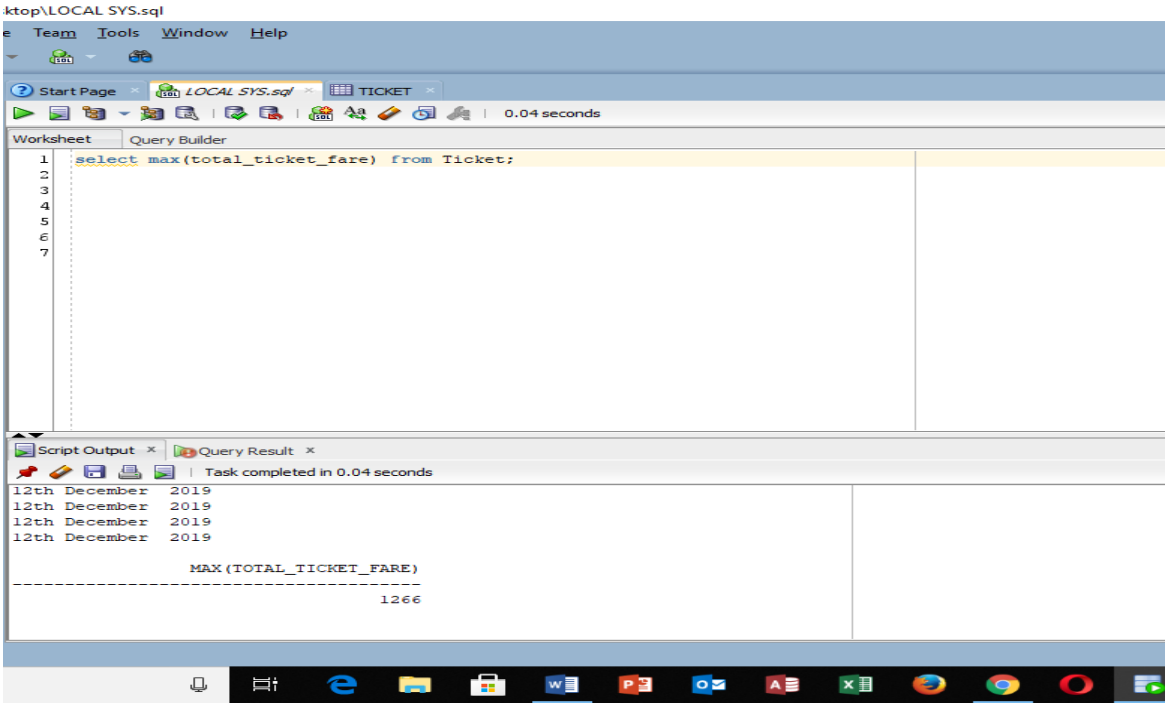
7. Display the pnrno and transaction id, if transaction id is null, print 'not generated'.



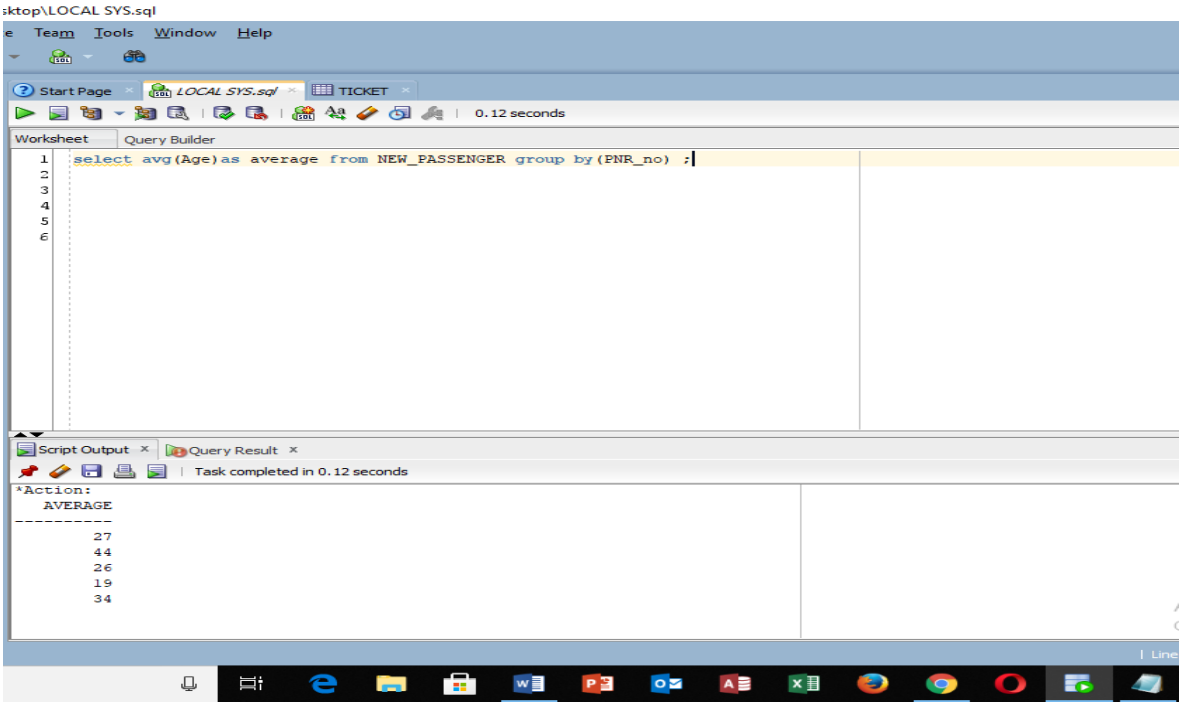
8. . Print the date_of_jounrney in the format '27th November 2010'



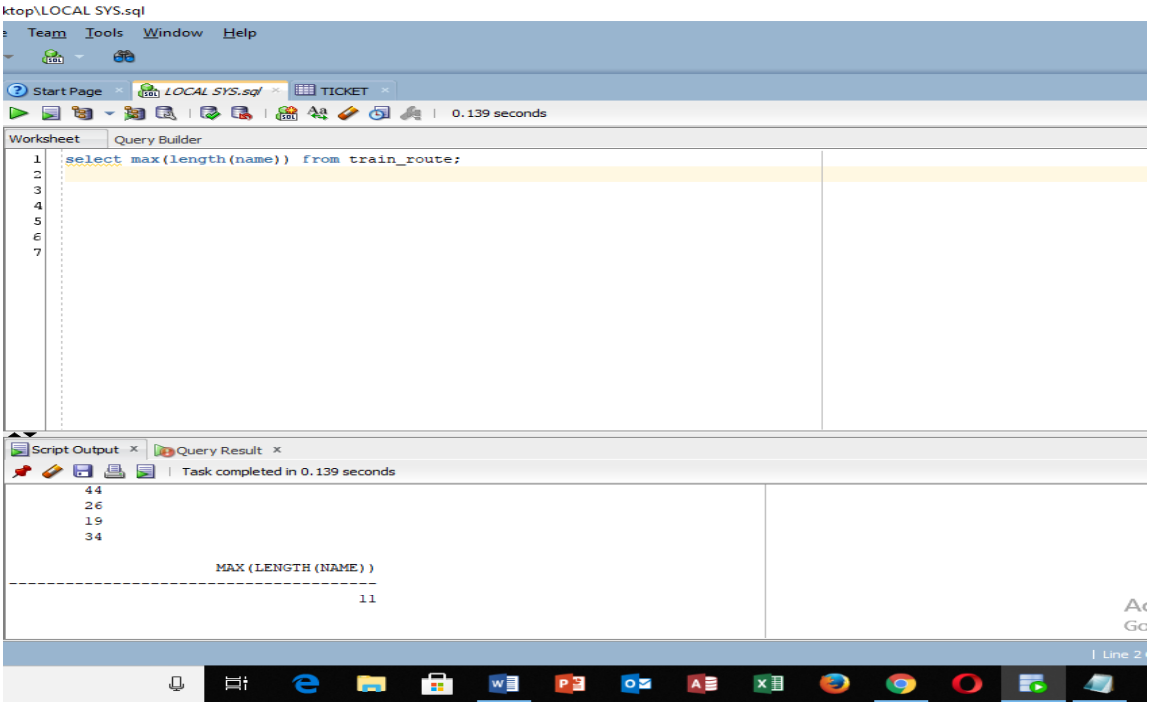
9. Find the maximum fare (total fare).



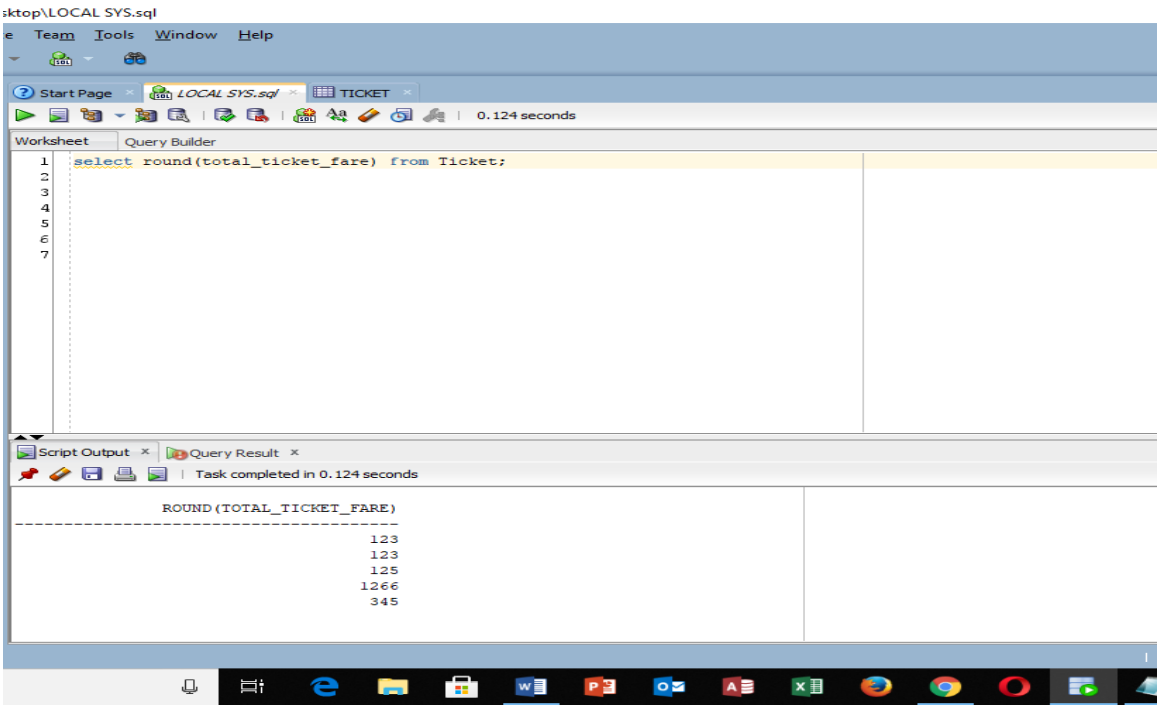
10. Find the average age of passengers in one ticket



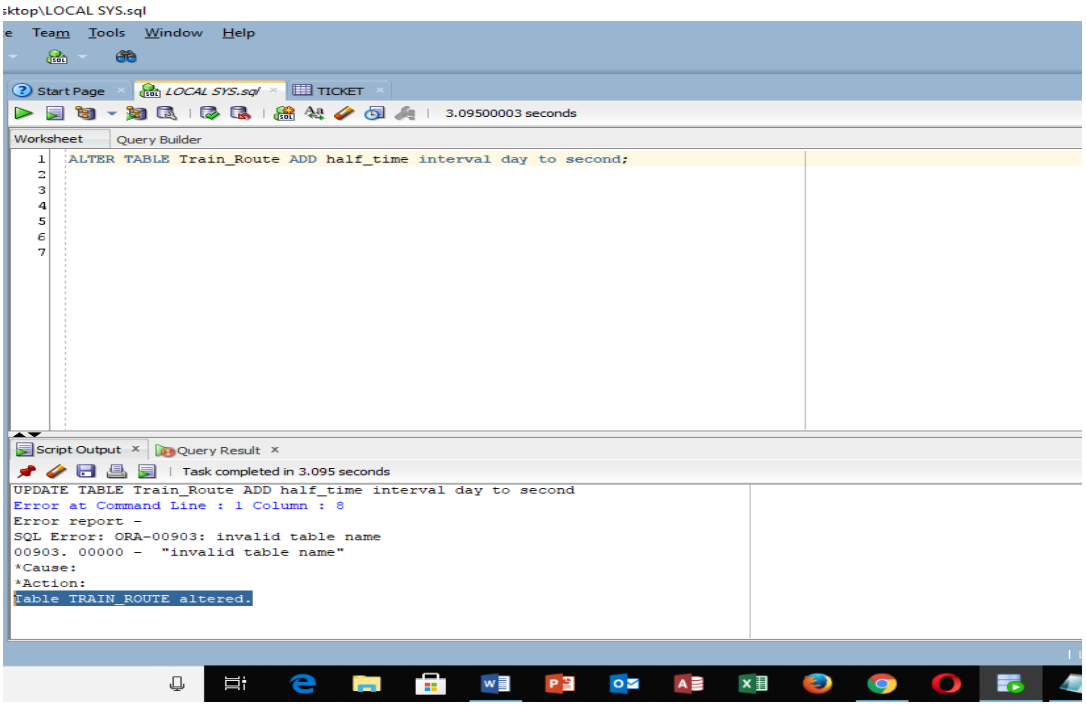
11. Find the maximum length of station name available in the database.



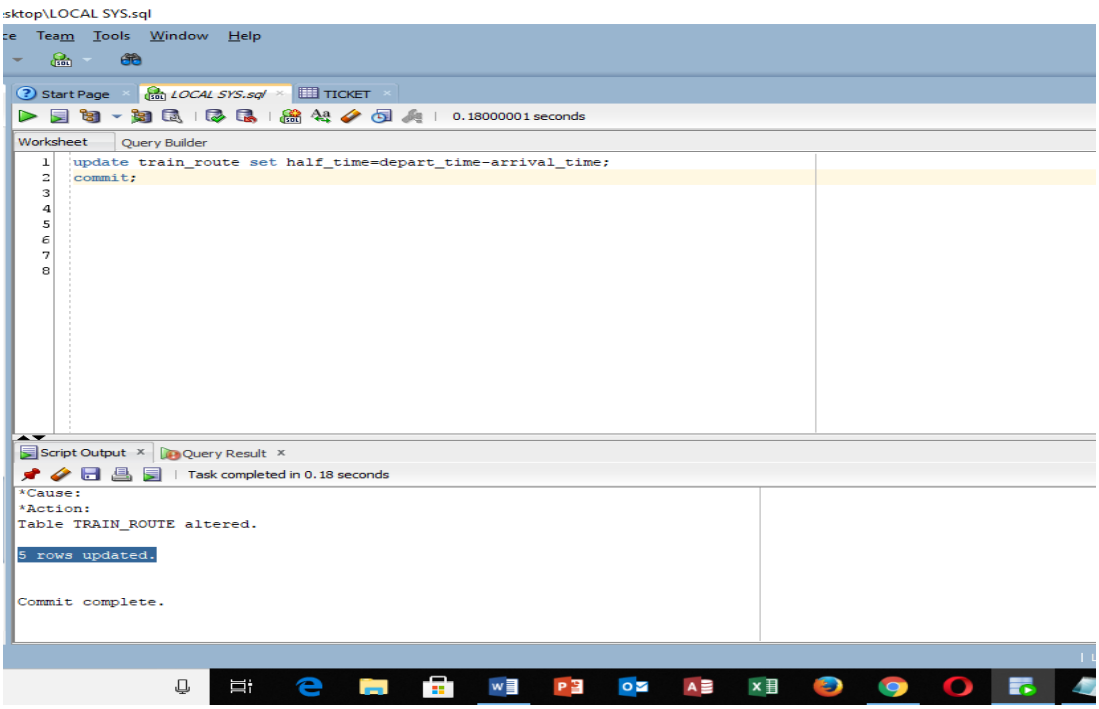
12. Print the fare amount of the passengers as rounded value.



13. Add the column halt time to train route.



14. Update values to it from arrival time and depart time.



16. Display the arrival time, depart time in the format HH:MI (24 hours and minutes).