# LAB REPORT

# CSE – 4508


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**Lab Group** : 1B (Shifted from 1A)


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In today's lab, we learnt how to use SQL loader utility to load data from text file to oracle table. The text file can be in .txt, .csv etc. format. We loaded data from a .csv file today.

The procedure to load data from csv file directly to databases is described below.

**Procedure to input data:**

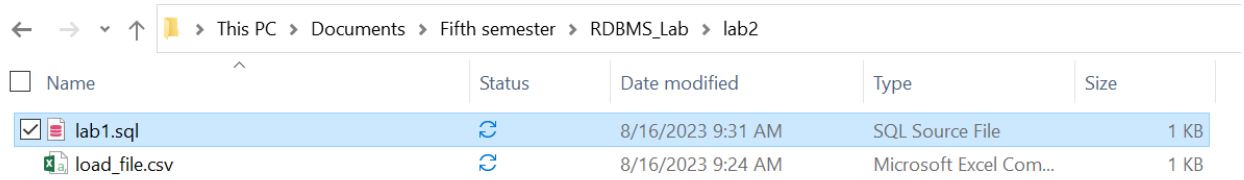
- Initially, upon inspecting the CSV file, it becomes evident that the data is divided by commas, serving as delimiters. Each line encapsulates an individual entry, concluded by whitespace. Within each row, there are four distinct data elements demarcated by commas. These pertain to the ID, Name, Address, and Salary of the employees. Accordingly, the database table necessitates four columns, aligned with the ensuing data types: Integer, varchar2, varchar2, and number, in sequential order.

- Next on the basis of gathered information the table should be created in the database after the user logs in into the database.

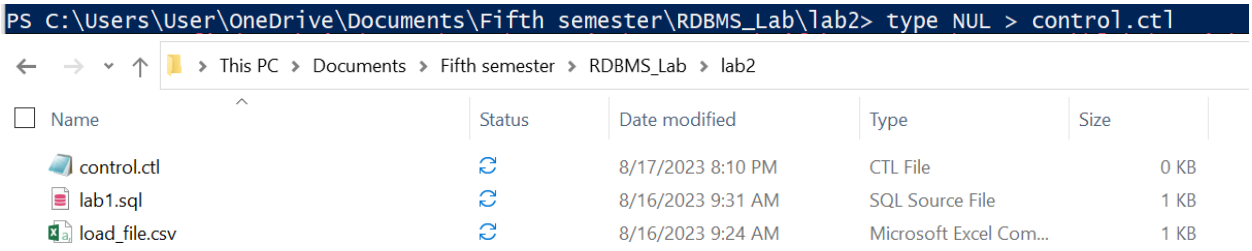
```
SQL> create table salary(
  2     id INT PRIMARY KEY,
  3     name VARCHAR2(20),
  4     city VARCHAR2(20),
  5     amount INT
  6  );

Table created.
```

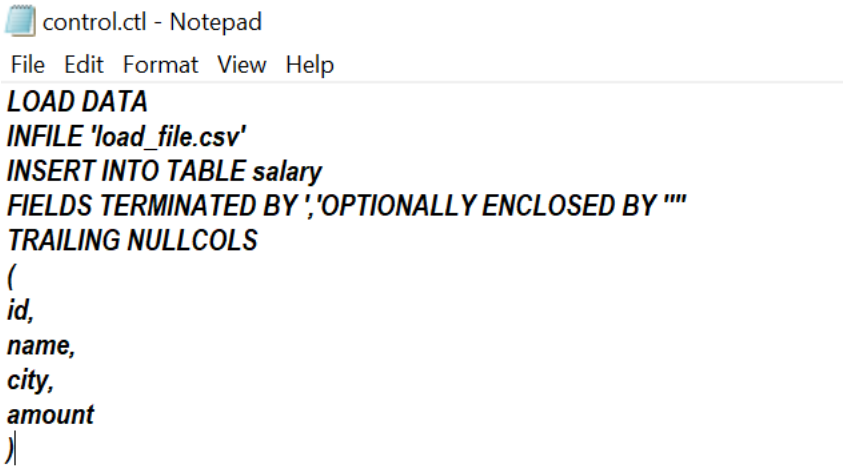
❖Now in any directory preferably the same place where the csv file is located, a control file (.ctl) should be created and named accordingly. It should be opened with Notepad.



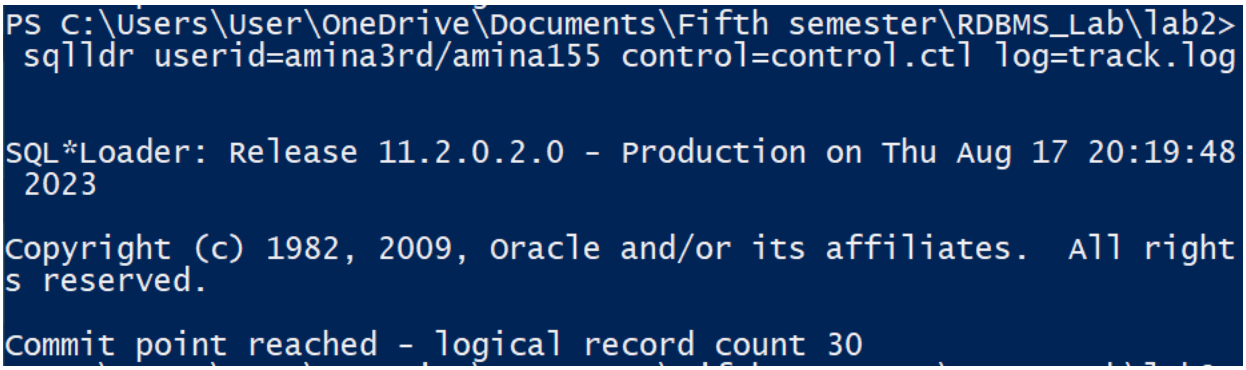

❖We are opening it using PowerShell command.



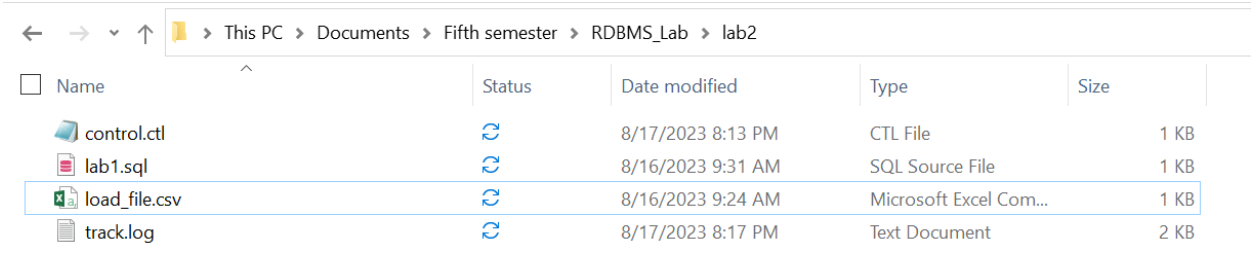

❖After the blank file is opened, the following lines of code should be written in the .ctl file and saved.



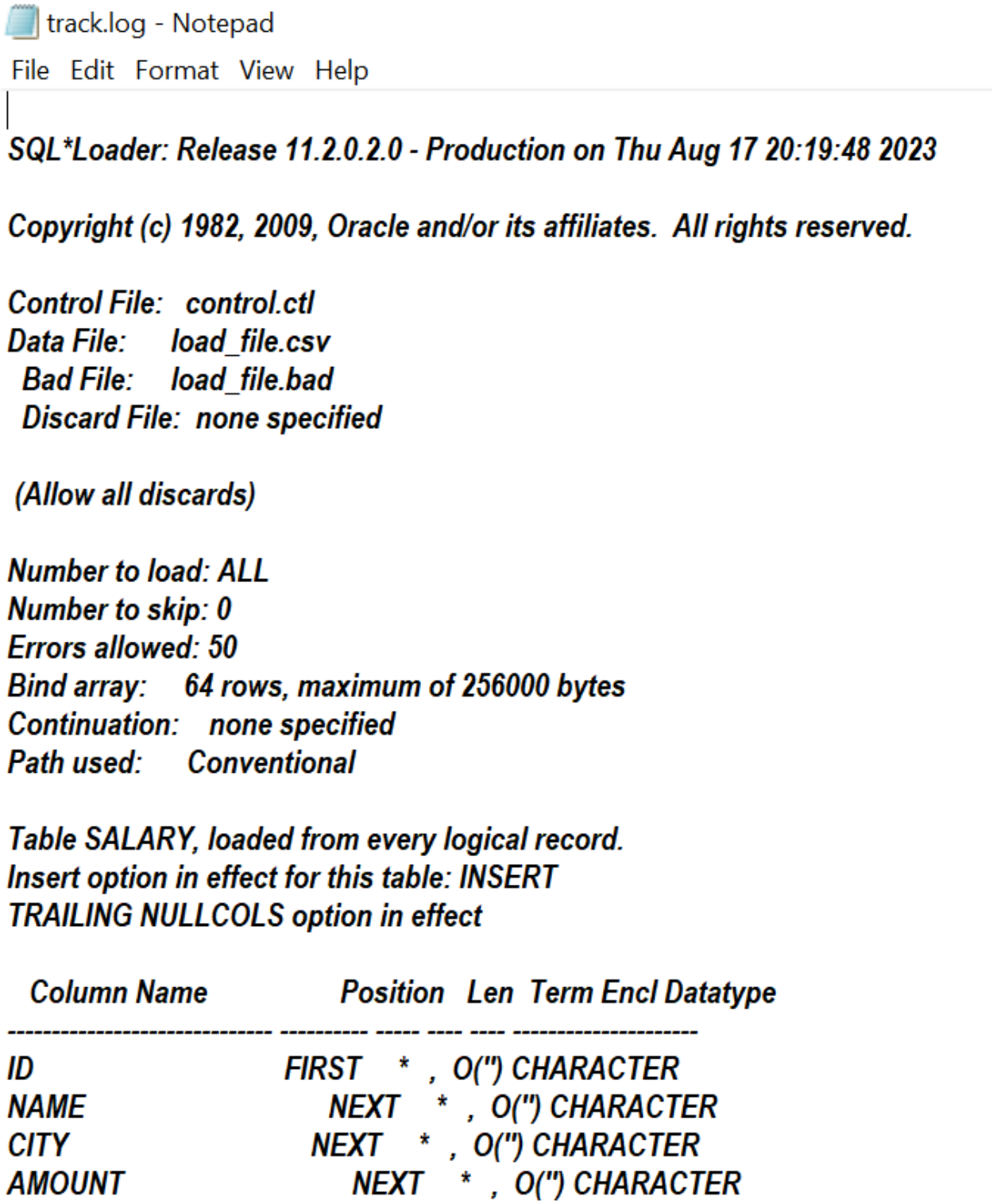
❖Subsequently, we access the SQLLoader prompt, linking it with the corresponding control file and log file as depicted below. The user's identification and the control file are provided in this step. A personalized log file is also required, with the flexibility to assign a chosen name. This operation culminates in the update of the database with the provided values, as illustrated in the accompanying image.




❖This is the current condition of the file directory



❖We can check the track.log file now


track.log - Notepad

File Edit Format View Help

SQL*Loader: Release 11.2.0.2.0 - Production on Thu Aug 17 20:19:48 2023

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Control File: control.ctl
Data File: load_file.csv
Bad File: load_file.bad
Discard File: none specified

(Allow all discards)

Number to load: ALL
Number to skip: 0
Errors allowed: 50
Bind array: 64 rows, maximum of 256000 bytes
Continuation: none specified
Path used: Conventional

Table SALARY, loaded from every logical record.
Insert option in effect for this table: INSERT
TRAILING NULLCOLS option in effect

| Column Name | Position | Len | Term | Encl | Datatype |
|---|---|---|---|---|---|
| ID | FIRST | * | , | O(') | CHARACTER |
| NAME | NEXT | * | , | O(') | CHARACTER |
| CITY | NEXT | * | , | O(') | CHARACTER |
| AMOUNT | NEXT | * | , | O(') | CHARACTER |

*Table SALARY:*
*30 Rows successfully loaded.*
*0 Rows not loaded due to data errors.*
*0 Rows not loaded because all WHEN clauses were failed.*
*0 Rows not loaded because all fields were null.*

*Space allocated for bind array:* *66048 bytes(64 rows)*
*Read buffer bytes: 1048576*

*Total logical records skipped:* *0*
*Total logical records read:* *30*
*Total logical records rejected:* *0*
*Total logical records discarded:* *0*

*Run began on Thu Aug 17 20:19:48 2023*
*Run ended on Thu Aug 17 20:19:48 2023*

*Elapsed time was:* *00:00:00.07*
*CPU time was:* *00:00:00.03*

❖Now, if we enter the database and select the table, the contents of .csv file will be displayed there.

```
SQL> select * from salary;

        ID NAME                 CITY                      AMOUNT
---------- -------------------- -------------------- ----------
         1 ABC                  Dhaka                       6000
         2 BCD                  Rajshahi                    2000
         3 CBA                  Dhaka                       6000
         4 BCE                  Rajshahi                    7000
         5 EBC                  Rangpur                     3400
         6 BEC                  Rajshahi                    4300
         7 CAB                  Sylhe                       6800
         8 DEC                  Rajshahi                    1100
         9 DCE                  Sylhet                      7300
        10 DBC                  Dhaka                       2700
        11 DCB                  Rajshahi                    8400

        ID NAME                 CITY                      AMOUNT
---------- -------------------- -------------------- ----------
        12 DCC                  Sylhet                      3800
        13 EDC                  Dhaka                       7200
        14 GAB                  Rangpur                     2800
        15 BAG                  Rangpur                     7300
        16 ABG                  Rajshahi                    9100
        17 GAC                  Rangpur                     4800
        18 CAG                  Dhaka                       8300
        19 CGA                  Rajshahi                    1900
        20 ACG                  Sylhet                      5700
        21 GDA                  Sylhet                      8600
        22 DAG                  Dhaka                       5800

        ID NAME                 CITY                      AMOUNT
---------- -------------------- -------------------- ----------
        23 AGD                  Rajshahi                    4700
        24 ADG                  Rangpur                     2800
        25 HAC                  Rangpur                     1900
        26 HRT                  Rajshahi                    5200
        27 ABH                  Sylhet                      8300
        28 HBA                  Rangpur                     7300
        29 ACH                  Sylhet                      9200
        30 HDC                  Dhaka                       3600
```

This is how the data is imported into the database from a .csv file, with all errors being automatically managed by sqlldr through appropriate control file instructions.