1. Write the SQL Code that will create the table of above structure (table name should be like TABLENAME\_17B-XXX-CE)

**QUERIES:**

CREATE TABLE JOB\_17B\_033\_SE(

JOB\_CODE NUMBER(3,0),

JOB\_DESCRIPTION VARCHAR2(25),

JOB\_CHG\_HR NUMBER(4,2),

JOB\_LAST\_UPDATE DATE,

CONSTRAINT PK\_JOBC PRIMARY KEY (JOB\_CODE)

);

CREATE TABLE EMP\_17B\_033\_SE(

EMP\_NUM NUMBER(4) NOT NULL,

EMP\_LNAME VARCHAR2(15),

EMP\_FNAME VARCHAR2(15),

EMP\_INITIAL VARCHAR2(1),

JOB\_CODE NUMBER(3,0),

EMP\_HIREDATE DATE,

EMP\_YEAR NUMBER(2,0),

CONSTRAINT PK\_EMPNUM1 PRIMARY KEY (EMP\_NUM),

CONSTRAINT FK\_JOBCODE1 FOREIGN KEY (JOB\_CODE) REFERENCES JOB\_17B\_033\_SE (JOB\_CODE)

) ;

CREATE TABLE PROJECT\_17B\_033\_SE(

PROJ\_NUM NUMBER(2,0),

PROJ\_NAME VARCHAR2(25),

PROJ\_VALUE NUMBER (14,2),

PROJ\_BALANCE NUMBER(14,2),

EMP\_NUM NUMBER(4) NOT NULL,

CONSTRAINT PK\_PROJNUM1 PRIMARY KEY (PROJ\_NUM),

CONSTRAINT FK\_EMPNO1 FOREIGN KEY (EMP\_NUM) REFERENCES EMP\_17B\_033\_SE (EMP\_NUM)

);

CREATE TABLE ASSIGNMENT\_17B\_033\_SE(

ASSIGN\_NUM NUMBER(4) NOT NULL,

ASSIGN\_DATE DATE,

PRO\_NUM NUMBER(2,0),

EMP\_NUM NUMBER(4) NOT NULL,

ASSIGN\_JOB NUMBER(3),

ASSIGN\_CHG\_HR NUMBER(3,2),

ASSIGN\_HOURS NUMBER(2,1),

ASSIGN\_CHARGE NUMBER(5,2),

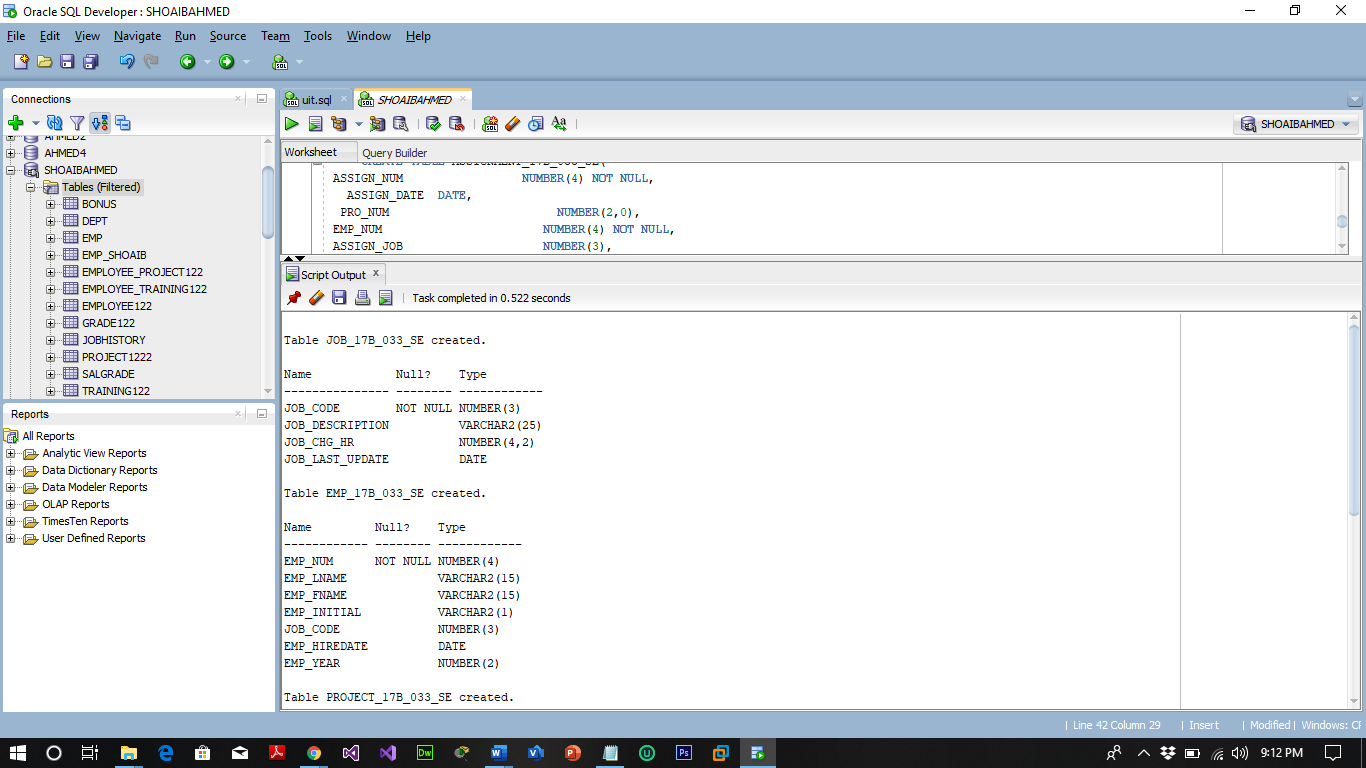
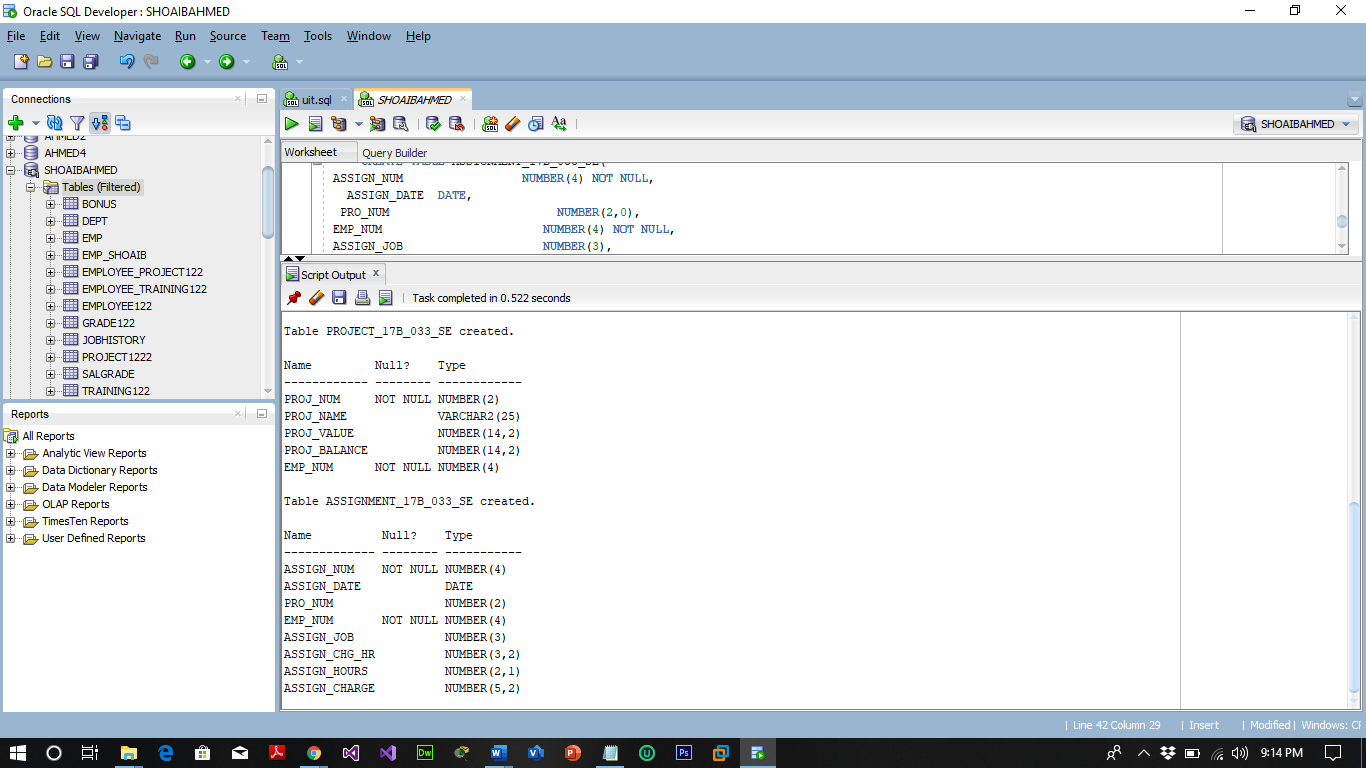
CONSTRAINT PK\_ASSIGNNUM1 PRIMARY KEY (ASSIGN\_NUM),

CONSTRAINT FK\_JOBCODE11 FOREIGN KEY (ASSIGN\_JOB) REFERENCES JOB\_17B\_033\_SE (JOB\_CODE),

CONSTRAINT FK\_EMPNO2 FOREIGN KEY (EMP\_NUM) REFERENCES EMP\_17B\_033\_SE (EMP\_NUM),

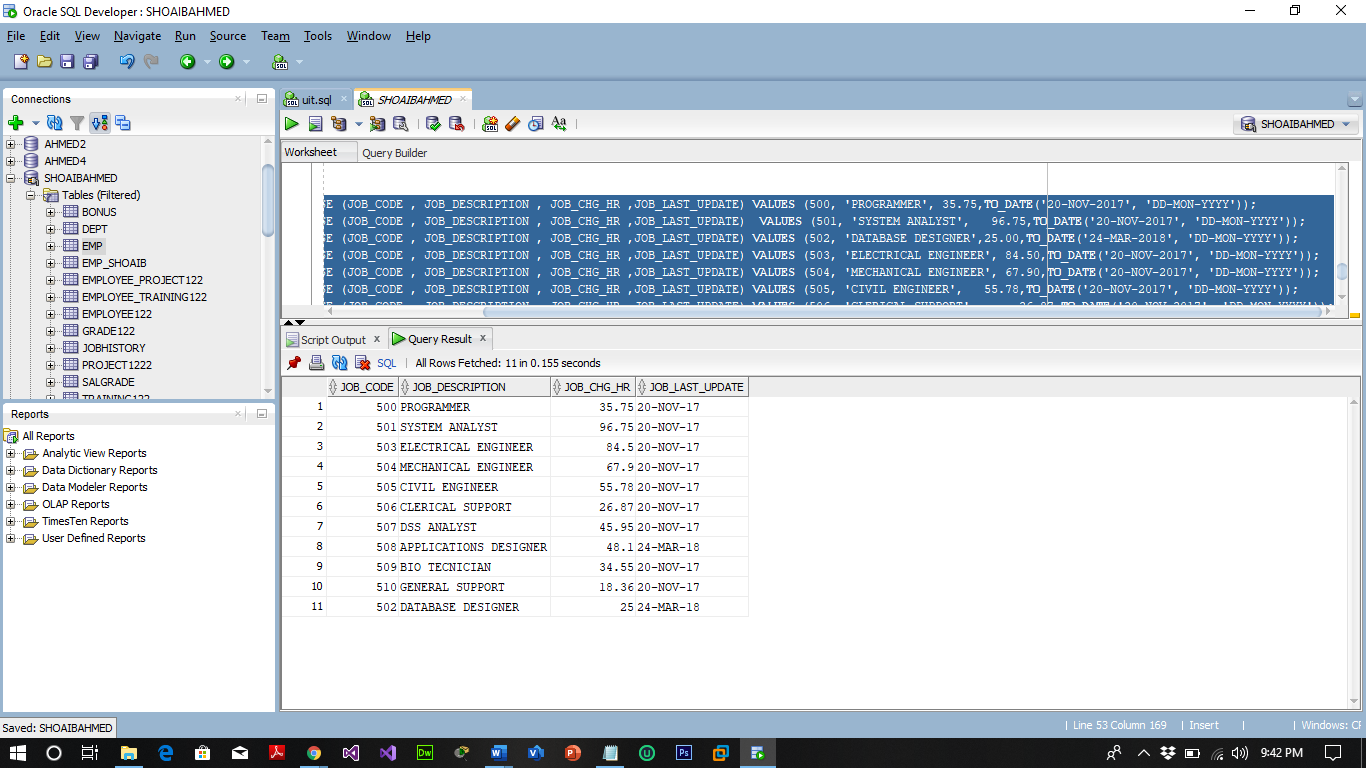
CONSTRAINT FK\_PRONUM14 FOREIGN KEY (PRO\_NUM) REFERENCES PROJECT\_17B\_033\_SE (PROJ\_NUM)

) ;

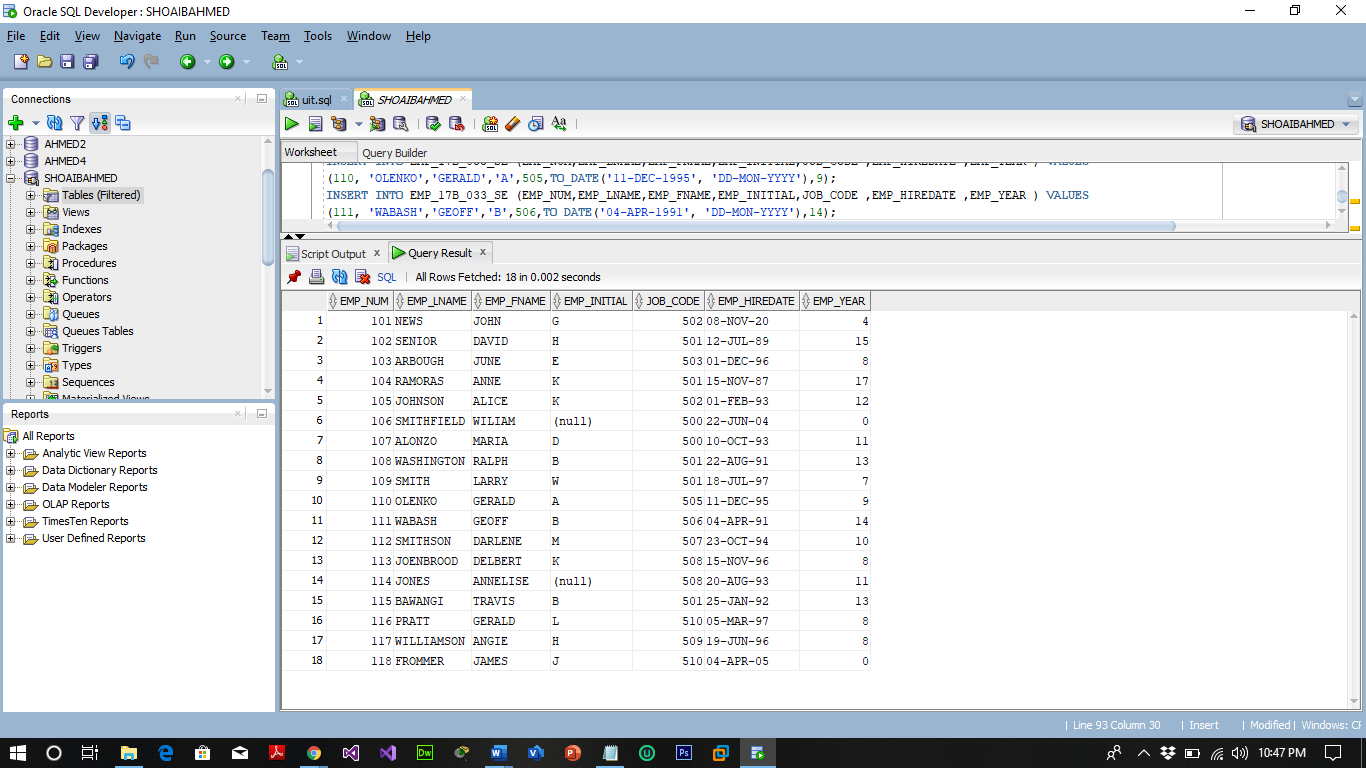
 

1. Perform INSERT Command in the above tables of database **ConstructCo** (please find the data on page 3-4)

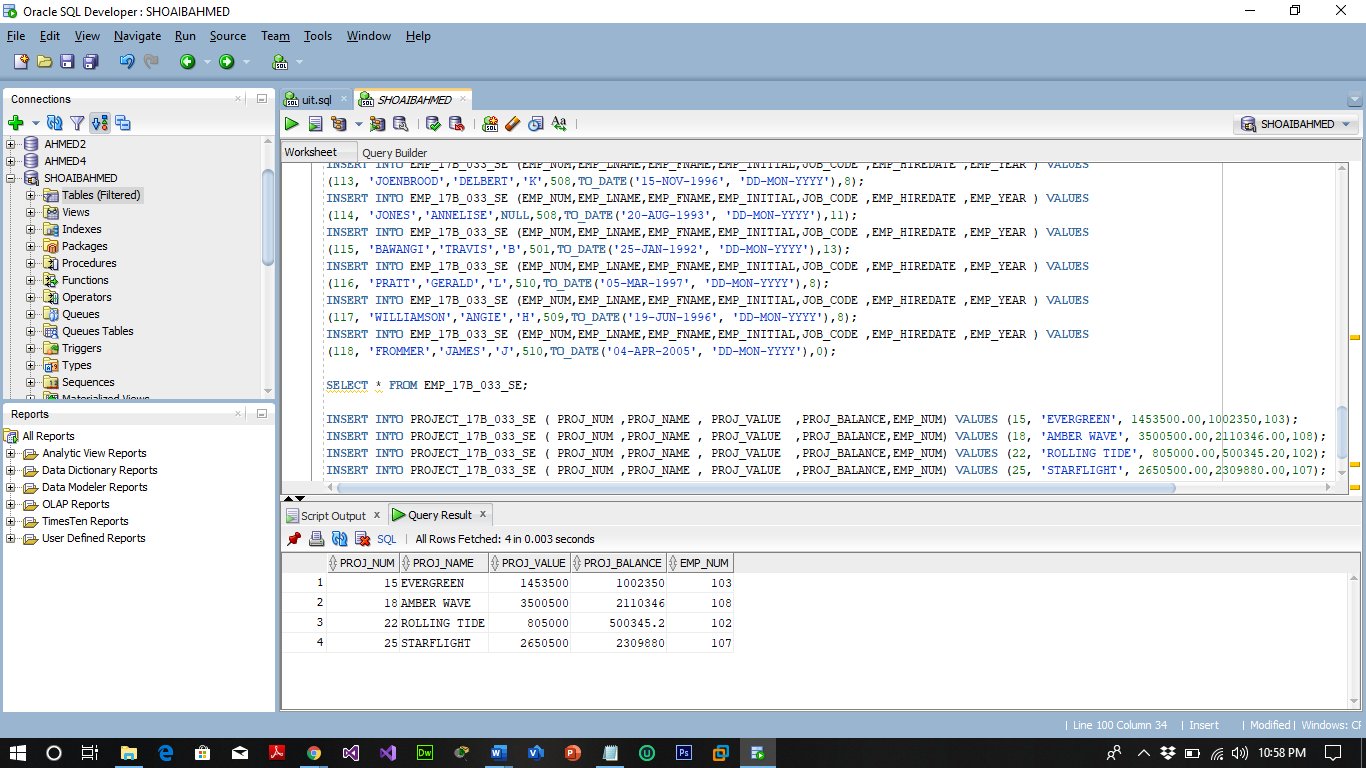
**JOB TABLE:**



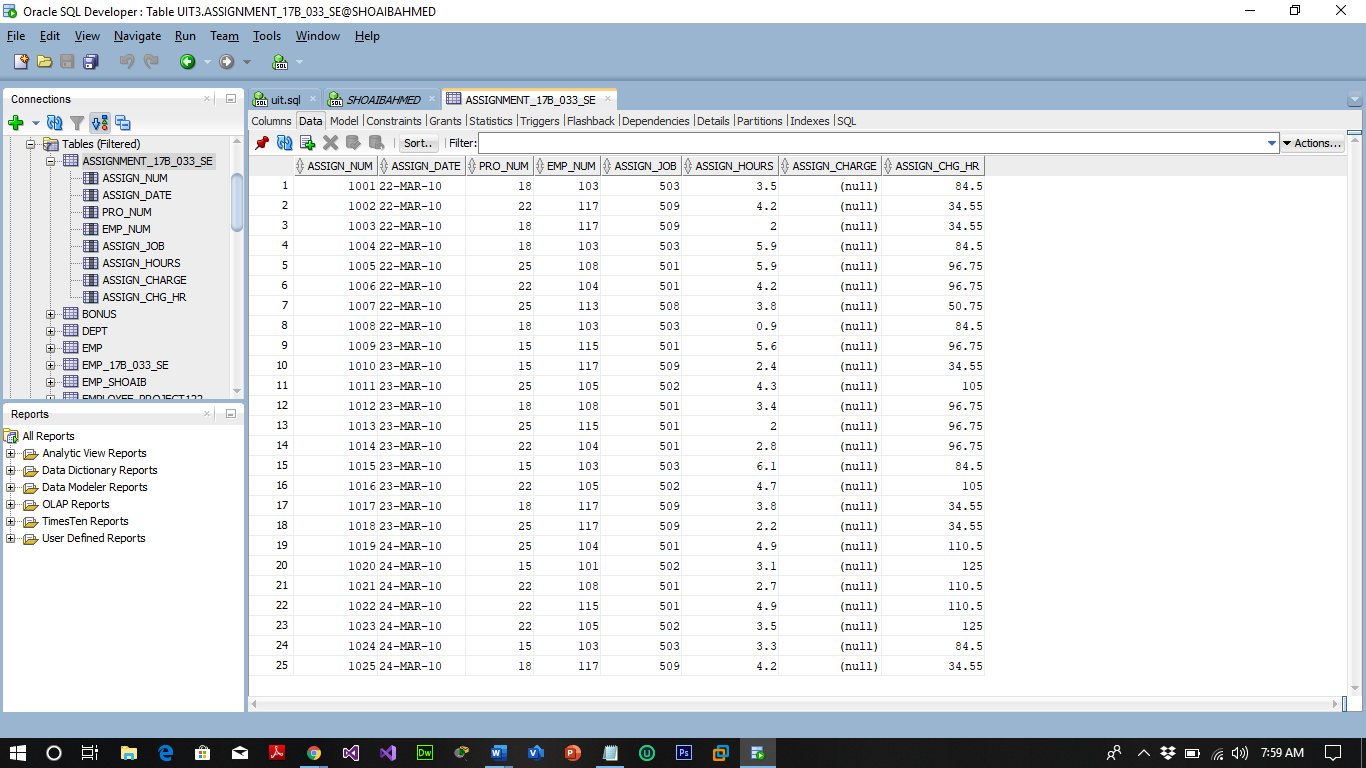
**EMP TABLE:**



**PROJECT TABLE:**



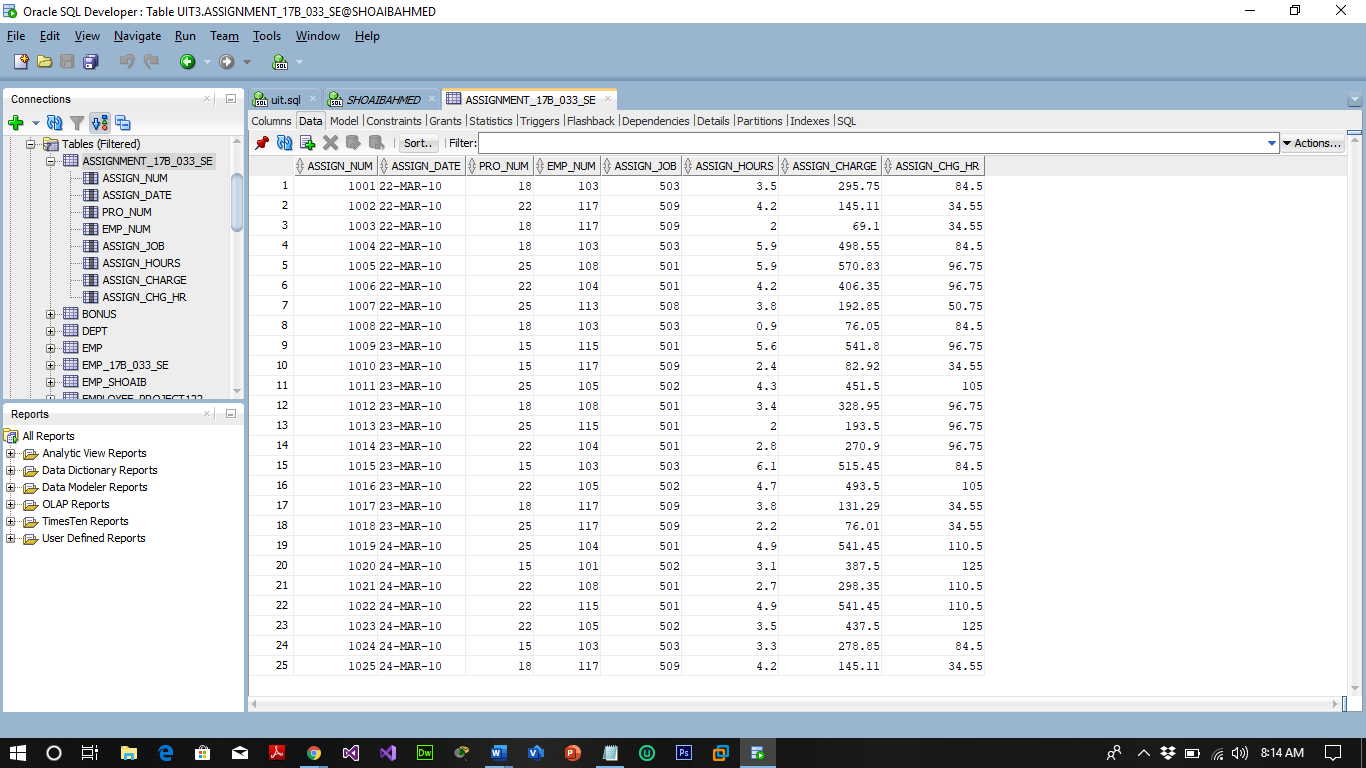
**ASSIGNMENT TABLE:**



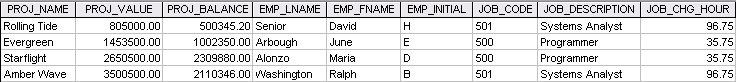
1. Write the SQL code to calculate the ASSIGN\_CHARGE values in the ASSIGNMENT table in the ConstructCo database. Note that ASSIGN\_CHARGE is a derived attribute that is calculated by multiplying ASSIGN\_CHG\_HR by ASSIGN\_HOURS.

**QUERY:**

UPDATE ASSIGNMENT\_17B\_033\_SE SET ASSIGN\_CHARGE=ASSIGN\_CHG\_HR\*ASSIGN\_HOURS;



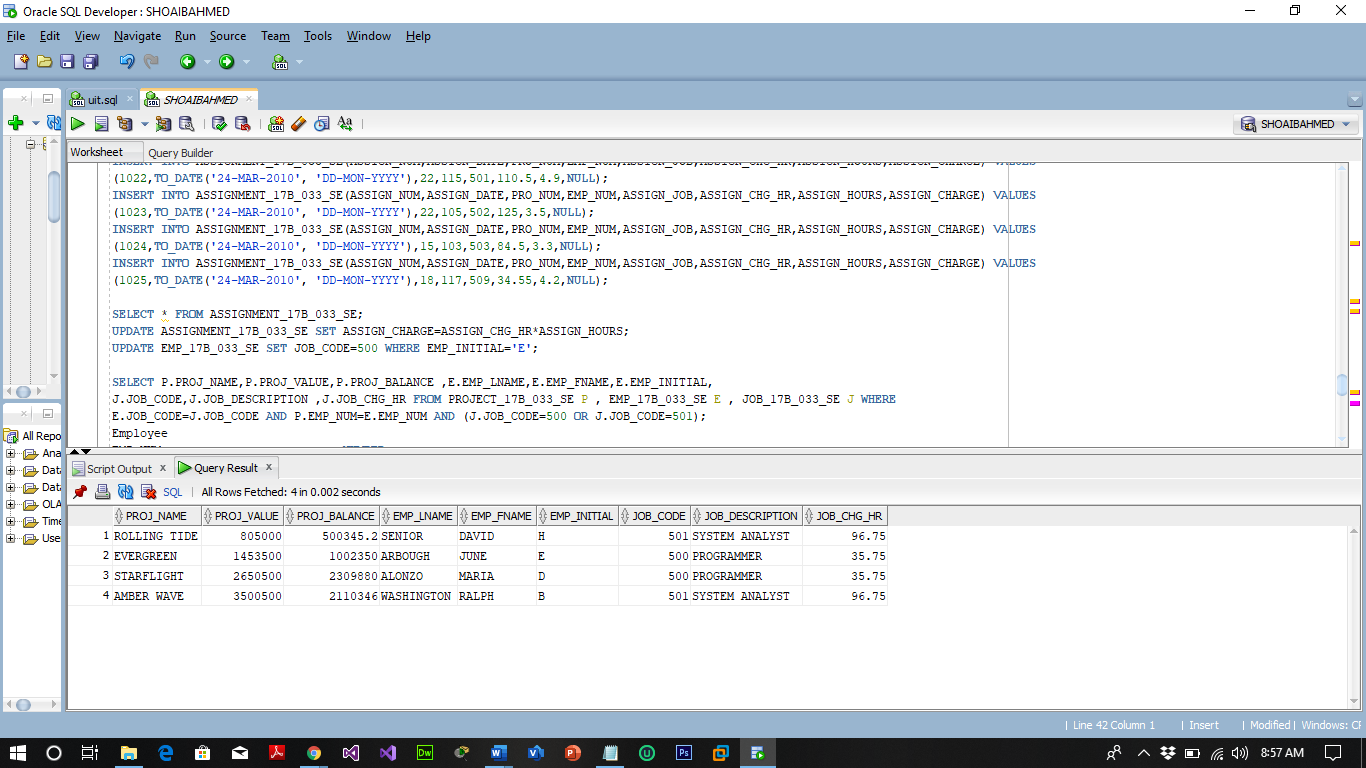
1. Using the EMPLOYEE, JOB, and PROJECT tables in the ConstructCo database, write the SQL code that will produce the results shown as in below figure.



**QUERIES:**

UPDATE EMP\_17B\_033\_SE SET JOB\_CODE=500 WHERE EMP\_INITIAL='E';

SELECT P.PROJ\_NAME,P.PROJ\_VALUE,P.PROJ\_BALANCE,E.EMP\_LNAME,E.EMP\_FNAME,E.EMP\_INITIAL,J.JOB\_CODE,J.JOB\_DESCRIPTION ,J.JOB\_CHG\_HR FROM PROJECT\_17B\_033\_SE P , EMP\_17B\_033\_SE E , JOB\_17B\_033\_SE J WHERE E.JOB\_CODE=J.JOB\_CODE AND P.EMP\_NUM=E.EMP\_NUM AND (J.JOB\_CODE=500 OR J.JOB\_CODE=501);

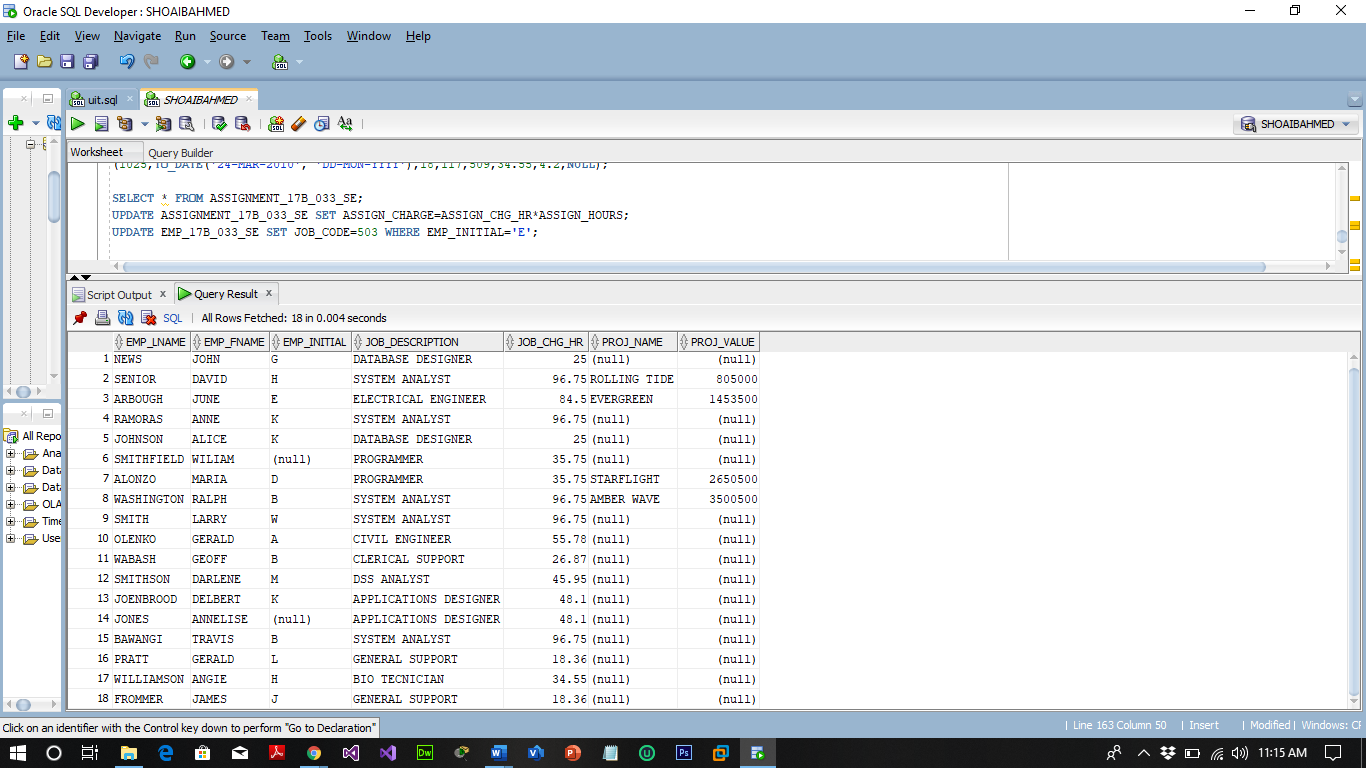


1. Write the SQL code that will produce result (FNAME, LNAME INITIAL, DESCRIPTION, CHG\_HOUR, PROJ\_NAME, PROJ\_VALUE) with the list of all employee including those who do not have assign in any project.

**QUERY:**

SELECT E.EMP\_LNAME,E.EMP\_FNAME,E.EMP\_INITIAL,J.JOB\_DESCRIPTION ,J.JOB\_CHG\_HR,P.PROJ\_NAME,P.PROJ\_VALUE FROM EMP\_17B\_033\_SE E , JOB\_17B\_033\_SE J , PROJECT\_17B\_033\_SE P WHERE

E.JOB\_CODE=J.JOB\_CODE AND E.EMP\_NUM=P.EMP\_NUM(+);



1. Using the data in the ASSIGNMENT table, write the SQL code that will yield the total number of hours worked for each employee

**QUERY:**

SELECT E.EMP\_NUM,E.EMP\_LNAME,SUM(J.ASSIGN\_HOURS) FROM EMP\_17B\_033\_SE E , ASSIGNMENT\_17B\_033\_SE J WHERE J.EMP\_NUM=E.EMP\_NUM GROUP BY E.EMP\_NUM,E.EMP\_LNAME ORDER BY E.EMP\_NUM ASC ;

