HOTEL MEJBAN MANAGEMENT SYSTEM



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# **PROBLEM ANALYSIS**

Online international hotel system is very convenient for the people who likes to travel whole world to enjoy their life. The management of Hotel Mejban opted for an online booking system due to their massive losses experienced by current manual system as:

1. Would be more convenient for customer and employee

2. Improve customer service by providing prompt customer support

3. Reduce operational cost for the company

# **FACTS IN THE PROJECT**

The elements of the database preparation for the hotel management-

* **Computerization** - All the details regarding hotels, whether it is small or big, will be computerized.
* **Inventory** – If the rooms are provided to the customers, the availability will be reduced in the inventory, and will help in to know the status of the available rooms.
* **Avoid duplication** - For every reservation that is conducted for the customers, an automated report will be generated and will be available to the customers and his / her concerned manager uniformly.
* **Record keeping**– It will be easier task for the management to keep the record of the customers for historical purpose.
* **Booking**– It will be easier for both the customers and the receptionist to have the bookings. It is just two clicks away.

# **SYSTEM MODULES**

## **Rental**

The following primary marketing strategies that we use to grow rental revenue and enhance each of our hotel brand.

Internet Marketing: We will make sure your website booking directly to us. We use social media such as Twitter, Facebook, and Trip Advisor to manage and enhance our brands. We also use mobile, email, and pay per click for marketing campaigns.

Sales Calls: We contact to our customers and response them for any information.

Trade Shows: We participate in different trade shows in different fair in whole world.

Incentive Programs: We have good offer for them, who are our regular customers.

## **Car Pick-ups and returns:**

Our pick-up and return always free for the customers who booked us and confirmed their payment.

## **Invoicing and Payment:**

Customers always get instant invoice and payment confirmation documents after they confirm their bookings. Moreover, we provide hard copy of invoice according to customers’ request.

## **General Administration:**

The respective departmental heads are very loyal to provide services to our valuable customers. We always prompt our valuable customers to provide their valuable opinion in any aspect.

# **DATA OF HOTEL MEJBAN MANAGEMENT SYSTEM**

## **Entity Relationship Diagram**









# **BUSINESS RULES**

|  |  |  |  |
| --- | --- | --- | --- |
| **RELATIONSHIP** | **TABLE1** | **TABLE2** | **CARDINALITY** |
| A hotel has many employees and  Each employee belongs to one hotel | COMM\_HOTELS | COMM\_EMPLOYEE | 1:M |
| A hotel has one or many rooms and  Each room belongs to one hotel | COMM\_HOTELS | COMM\_ROOMS | 1:M |
| A customer can have zero or many payment profile and each payment may be made by one customer | COMM\_CUS\_DETAILS | COMM\_PAYMENT | 1:M |
| A room can be booked zero or many times and in each booking one room must be booked | COMM\_ROOMS | COMM\_BOOKING | 1:M |
| One payment must be made in one booking and for each booking one payment must be made | COMM\_BOOKING | COMM\_PAYMENT | 1:1 |

# **TABLE DESCRIPTION**

1. **COMM\_EMPLOYEE Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| EMP\_ID | ID of employees who work for hotels | Primary Key | VARCHAR2 | 10 |
| FNAME | A first name of an employee |  | VARCHAR2 | 15 |
| LNAME | A last name of an employee |  | VARCHAR2 | 15 |
| ADDRESS | Address of employees |  | VARCHAR2 | 15 |
| POSTALCODE | Postal Code |  | VARCHAR2 | 15 |
| PHONE | Phone Number of employees |  | NUMBER | 15 |
| EMAIL | Email Address | Unique | VARCHAR2 | 15 |
| HOTEL\_ID | ID of hotels which employees work for | Foreign Key | NUMBER | 10 |

1. **COMM\_HOTELS Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| HOTEL\_ID | ID of hotels | Primary Key | NUMBER | 10 |
| NAME | Names of hotels |  | VARCHAR2 | 15 |
| ADDRESS | Address of hotels |  | VARCHAR2 | 15 |
| POSTALCODE | Postal Code |  | VARCHAR2 | 15 |
| PROVINCE | Province |  | VARCHAR2 | 15 |
| TELEPHONE | Telephone Number |  | VARCHAR2 | 15 |
| MANAGER\_ID | ID of managers who are in charge of hotels | Unique | VARCHAR2 | 10 |

1. **COMM\_ROOMS Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| ROOM\_NO | No of rooms | Primary Key | NUMBER | 10 |
| ROOM\_TYPE | Types of rooms |  | VARCHAR2 | 15 |
| ROOMDETAILS | Description of rooms |  | VARCHAR2 | 20 |
| ROOMPRICE | Price of rooms |  | NUMBER | 15 |
| HOTEL\_ID | ID of hotels | Foreign Key | NUMBER | 10 |

1. **COMM\_BOOKING Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| BOOKING\_ID | ID of booking | Primary Key | NUMBER | 10 |
| CUSTOMER\_ID | ID of customers | Foreign Key | NUMBER | 10 |
| ROOM\_NO | ID of rooms | Foreign Key | NUMBER | 10 |
| BOOKINGDATE | Date when customers book rooms |  | DATE |  |
| CHECKIN | Date of check in |  | DATE |  |
| CHECKOUT | Date of check out |  | DATE |  |
| NOOFNIGHT | Number of night that customers stay in hotels |  | NUMBER | 15 |

1. **COMM\_CUS\_DETAILS Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| CUSTOMER\_ID | ID of customers | Primary Key | NUMBER | 10 |
| FIRST NAME | First name of customers |  | VARCHAR2 | 15 |
| LAST NAME | Last name of customers |  | VARCHAR2 | 15 |
| DATE OF BIRTH | Date of Birth |  | DATE |  |
| ADDRESS | Address |  | VARCHAR2 | 15 |
| POSTALCODE | Postal Code |  | VARCHAR2 | 15 |
| COUNTRY | Countries where customers come from |  | VARCHAR2 | 15 |
| PHONE NO | Phone Number |  | VARCHAR2 | 15 |
| EMAIL | Email Address | Unique | VARCHAR2 | 15 |

1. **COMM\_PAYMENT Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** | **Description** | **Key Type/ Constraint** | **Data Type** | **Length** |
| PAYMENT\_ID | ID of payment | Primary Key | NUMBER | 10 |
| CUSTOMER\_ID | ID of customers | Foreign Key | NUMBER | 10 |
| BOOKING\_ID | ID of booking | Foreign Key | NUMBER | 10 |
| CARD# | Credit Card Number | Unique | VARCHAR2 | 15 |
| EXPIREDATE | Expire Date of the credit card |  | DATE |  |

# **TABLES CREATION SCRIPT**

**======= COMM\_EMPLOYEES =======**

CREATE TABLE COMM\_EMPLOYEES

( EMP\_ID VARCHAR2(10),

FNAME VARCHAR2(15) NOT NULL,

LNAME VARCHAR2(15) NOT NULL,

ADDRESS VARCHAR2(15),

POSTALCODE VARCHAR2(15),

PHONE VARCHAR(15),

EMAIL VARCHAR2(15),

HOTEL\_ID NUMBER(10),

CONSTRAINT EMP\_EMPID\_PK PRIMARY KEY(EMP\_ID),

CONSTRAINT EMP\_EMAIL\_UK UNIQUE(EMAIL));

**======= COMM\_HOTELS=======**

CREATE TABLE COMM\_HOTELS

( HOTEL\_ID NUMBER(10),

NAME VARCHAR2(15),

ADDRESS VARCHAR2(15),

POSTALCODE VARCHAR2(15),

PROVINCE VARCHAR2(15),

TELEPHONE VARCHAR2(15),

MANAGER\_ID VARCHAR2(10),

CONSTRAINT HOTELS\_HOTELID\_PK PRIMARY KEY(HOTEL\_ID));

**========= COMM\_ROOMS========**

CREATE TABLE COMM\_ROOMS

( ROOM\_NO NUMBER(10),

ROOM\_TYPE VARCHAR2(15),

ROOMDETAILS VARCHAR2(20),

ROOMPRICE NUMBER(15,2),

HOTEL\_ID NUMBER(10),

CONSTRAINT ROOMS\_ROOMNO\_PK PRIMARY KEY(ROOM\_NO));

**========= COMM\_BOOKING =========**

CREATE TABLE COMM\_BOOKING

( BOOKING\_ID NUMBER(10),

CUSTOMER\_ID NUMBER (10),

ROOM\_NO NUMBER(10),

BOOKINGDATE DATE NOT NULL,

CHECKIN DATE NOT NULL,

CHECKOUT DATE NOT NULL,

NOOFNIGHT NUMBER(15) NOT NULL,

CONSTRAINT BOOKING\_BOOKINGID\_PK PRIMARY KEY(BOOKING\_ID));

**======COMM\_CUS\_DETAILS ======**

CREATE TABLE COMM\_CUS\_DETAILS

( CUSTOMER\_ID NUMBER (10),

FNAME VARCHAR2(15) NOT NULL,

LNAME VARCHAR2(15) NOT NULL,

DOB DATE,

ADDRESS VARCHAR2(15),

POSTALCODE VARCHAR2(15),

COUNTRY VARCHAR2(15),

PHONE VARCHAR2(15),

EMAIL VARCHAR2(15),

CONSTRAINT CUSDETAILS\_CUSTOMERID\_PK PRIMARY KEY(CUSTOMER\_ID));

**====== COMM\_PAYMENT======**

CREATE TABLE COMM\_PAYMENT

( PAYMENT\_ID NUMBER(10),

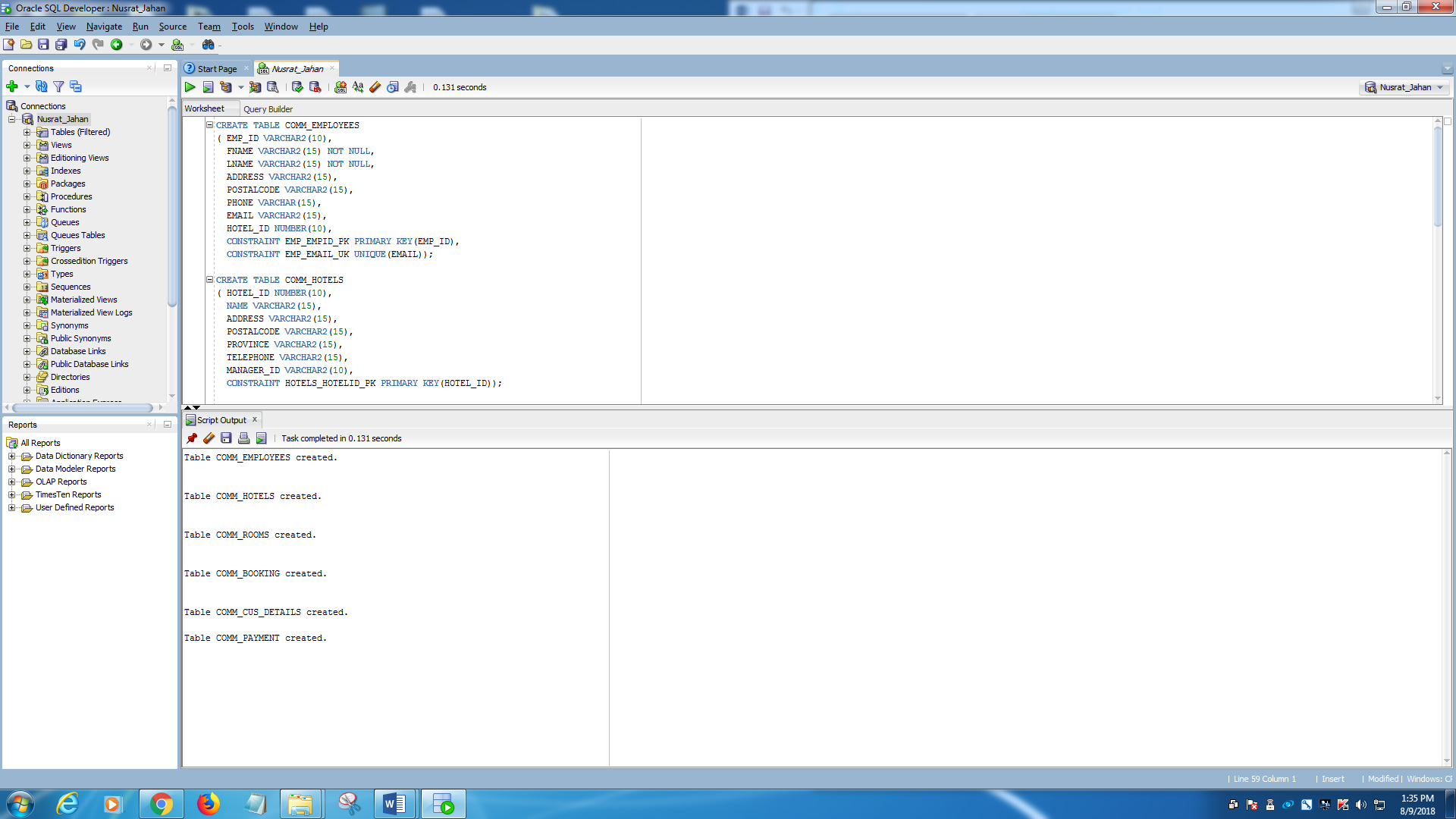
CUSTOMER\_ID NUMBER (10),

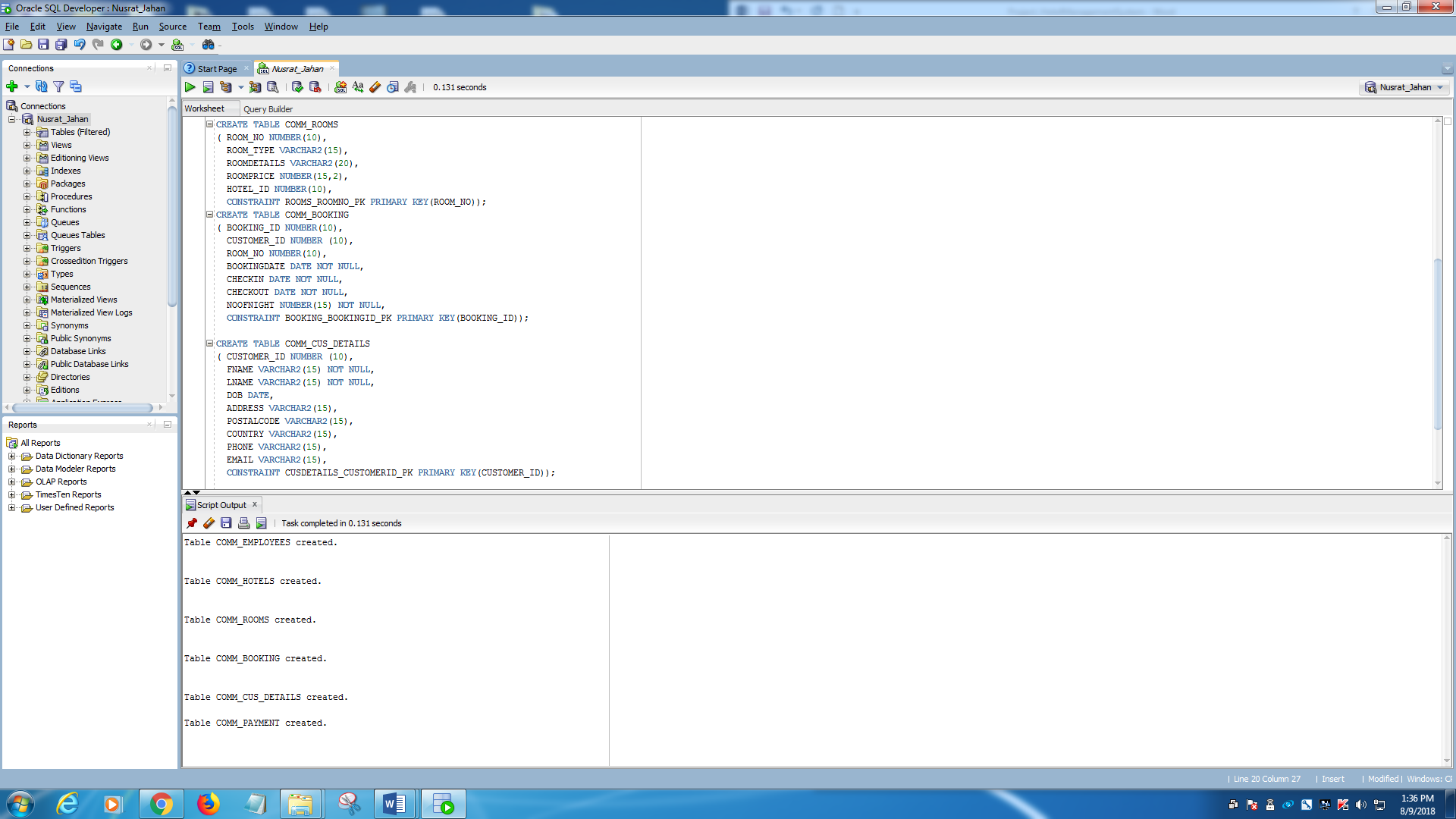
BOOKING\_ID NUMBER(10),

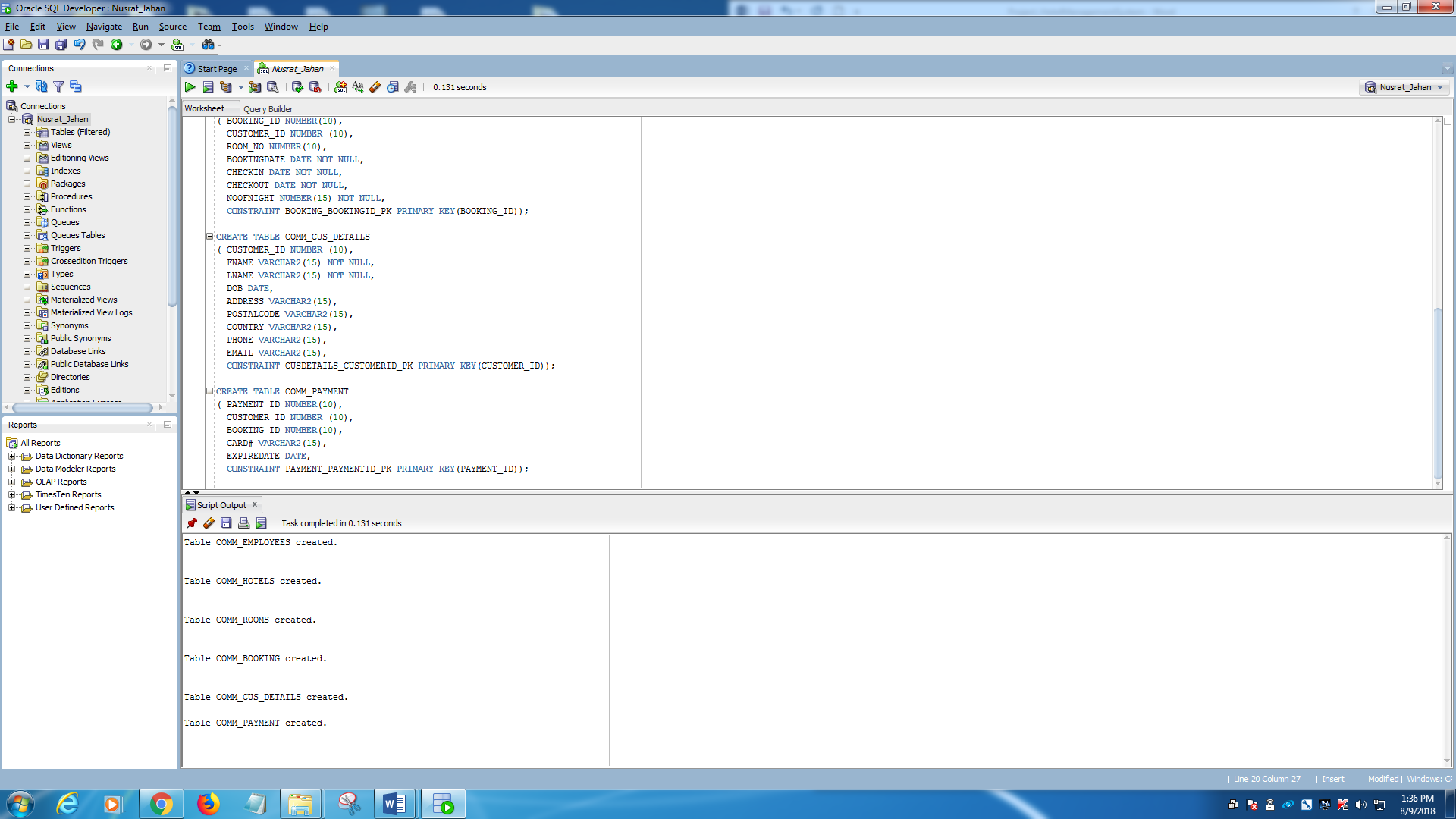
CARD# VARCHAR2(15),

EXPIREDATE DATE,

CONSTRAINT PAYMENT\_PAYMENTID\_PK PRIMARY KEY(PAYMENT\_ID));







# **DATA INSERT SCRIPT**

**==== COMM\_EMPLOYEES Table=====**

INSERT INTO COMM\_EMPLOYEES VALUES ('M-101', 'NUSRAT', 'JAHAN', 'P.O. BOX 651', 'M1M1M1', '647-111-1111', 'a@yahoo.com', 0001);

INSERT INTO COMM\_EMPLOYEES VALUES ('T-102', 'ROJINA', 'AKTER', 'P.O. BOX 581', 'M2M2M2', '647-222-2222', 'b@yahoo.com', 0006);

INSERT INTO COMM\_EMPLOYEES VALUES ('S-103', 'SMITH', 'LEILA', 'P.O. BOX 234', 'M3M3M3', '647-333-3333', 'c@yahoo.com', 0004);

INSERT INTO COMM\_EMPLOYEES VALUES ('P-104', 'PIERSON', 'THOMAS', 'P.O. BOX 925', 'M4M4M4', '647-444-4444', 'd@yahoo.com', 0001);

INSERT INTO COMM\_EMPLOYEES VALUES ('G-105', 'GIRARD', 'CINDY', 'P.O. BOX 652', 'M5M5M5', '647-555-5555', 'e@yahoo.com', 0001);

INSERT INTO COMM\_EMPLOYEES VALUES ('C-106', 'CRUZ', 'MESHIA', 'P.O. BOX 787', 'M6M6M6', '647-666-6666', 'f@yahoo.com', 0007);

INSERT INTO COMM\_EMPLOYEES VALUES ('S-107', 'SHILA', 'DESHAI', 'P.O. BOX 678', 'M6M3M4', '647-777-7777', 'g@yahoo.com', 0002);

INSERT INTO COMM\_EMPLOYEES VALUES ('P-108', 'KIM', 'THOMPSON', 'P.O. BOX 454', 'M4M4M1', '647-888-8888', 'h@yahoo.com', 0002);

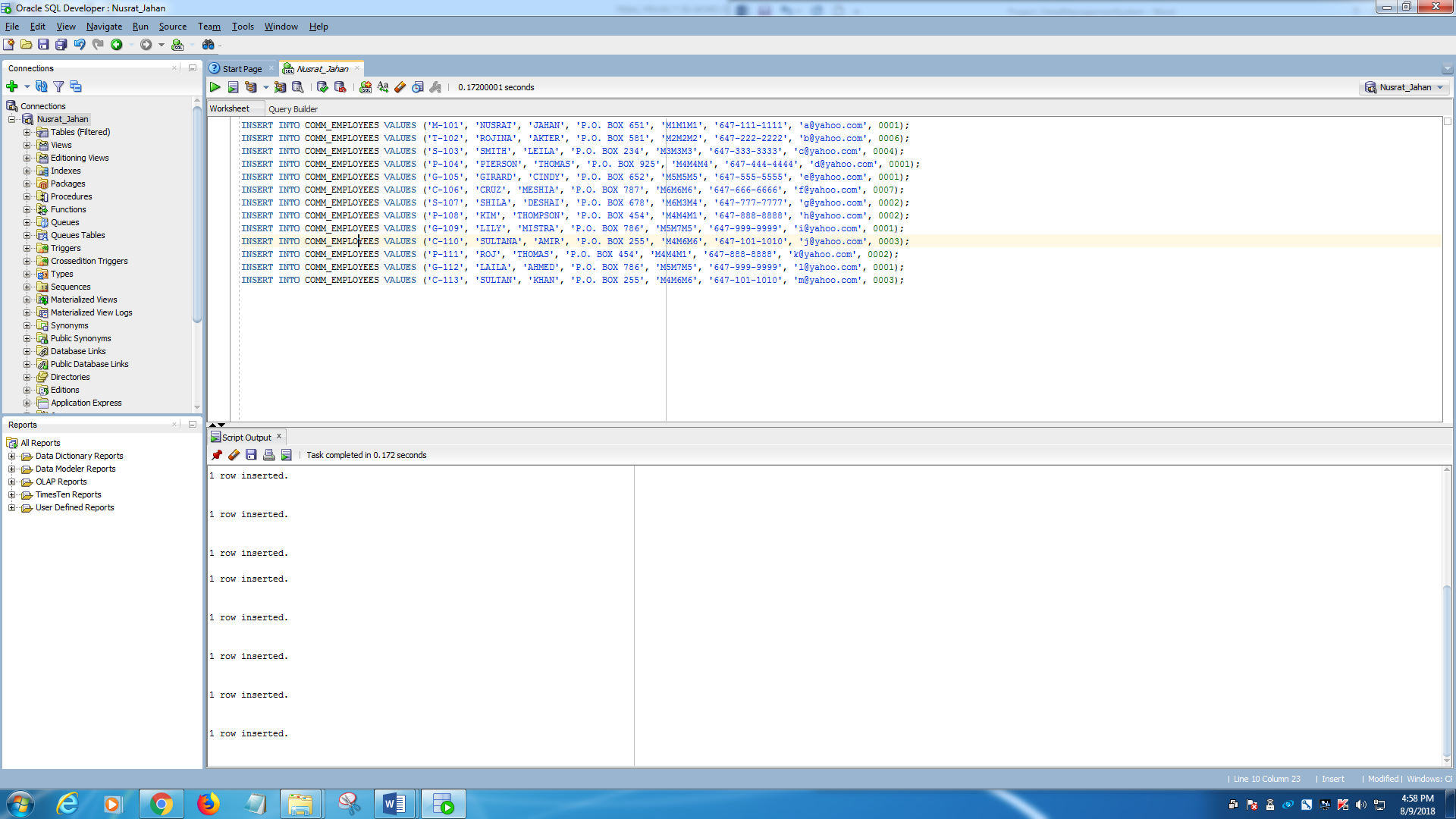
INSERT INTO COMM\_EMPLOYEES VALUES ('G-109', 'LILY', 'MISTRA', 'P.O. BOX 786', 'M5M7M5', '647-999-9999', 'i@yahoo.com', 0001);

INSERT INTO COMM\_EMPLOYEES VALUES ('C-110', 'SULTANA', 'AMIR', 'P.O. BOX 255', 'M4M6M6', '647-101-1010', 'j@yahoo.com', 0003);

INSERT INTO COMM\_EMPLOYEES VALUES ('P-111', 'ROJ', 'THOMAS', 'P.O. BOX 454', 'M4M4M1', '647-888-8888', 'k@yahoo.com', 0002);

INSERT INTO COMM\_EMPLOYEES VALUES ('G-112', 'LAILA', 'AHMED', 'P.O. BOX 786', 'M5M7M5', '647-999-9999', 'l@yahoo.com', 0001);

INSERT INTO COMM\_EMPLOYEES VALUES ('C-113', 'SULTAN', 'KHAN', 'P.O. BOX 255', 'M4M6M6', '647-101-1010', 'm@yahoo.com', 0003);



**===== COMM\_HOTELS Table=====**

INSERT INTO COMM\_HOTELS VALUES (0001, 'SWEET DREAMS', '565 SHER ST', 'M4X1W7', 'ONTARIO', '000-123-5478', 'M-9000');

INSERT INTO COMM\_HOTELS VALUES (0002, 'Holiday Inn', '575 VIC ST', 'M4X1W7', 'ONTARIO', '000-123-7896', 'M-8000');

INSERT INTO COMM\_HOTELS VALUES (0003, 'Quality Inn', '555 FINCH ST', 'M4X1W7', 'ONTARIO', '000-123-1234', 'M-7000');

INSERT INTO COMM\_HOTELS VALUES (0004, 'Sheraton', '595 KENEDY ST', 'M4X1W7', 'ONTARIO', '000-123-5932', 'M-6000');

INSERT INTO COMM\_HOTELS VALUES (0005, 'Toronto Inn', '466 WARDEN ST', 'M4X1W7', 'ONTARIO', '000-123-5467', 'M-1000');

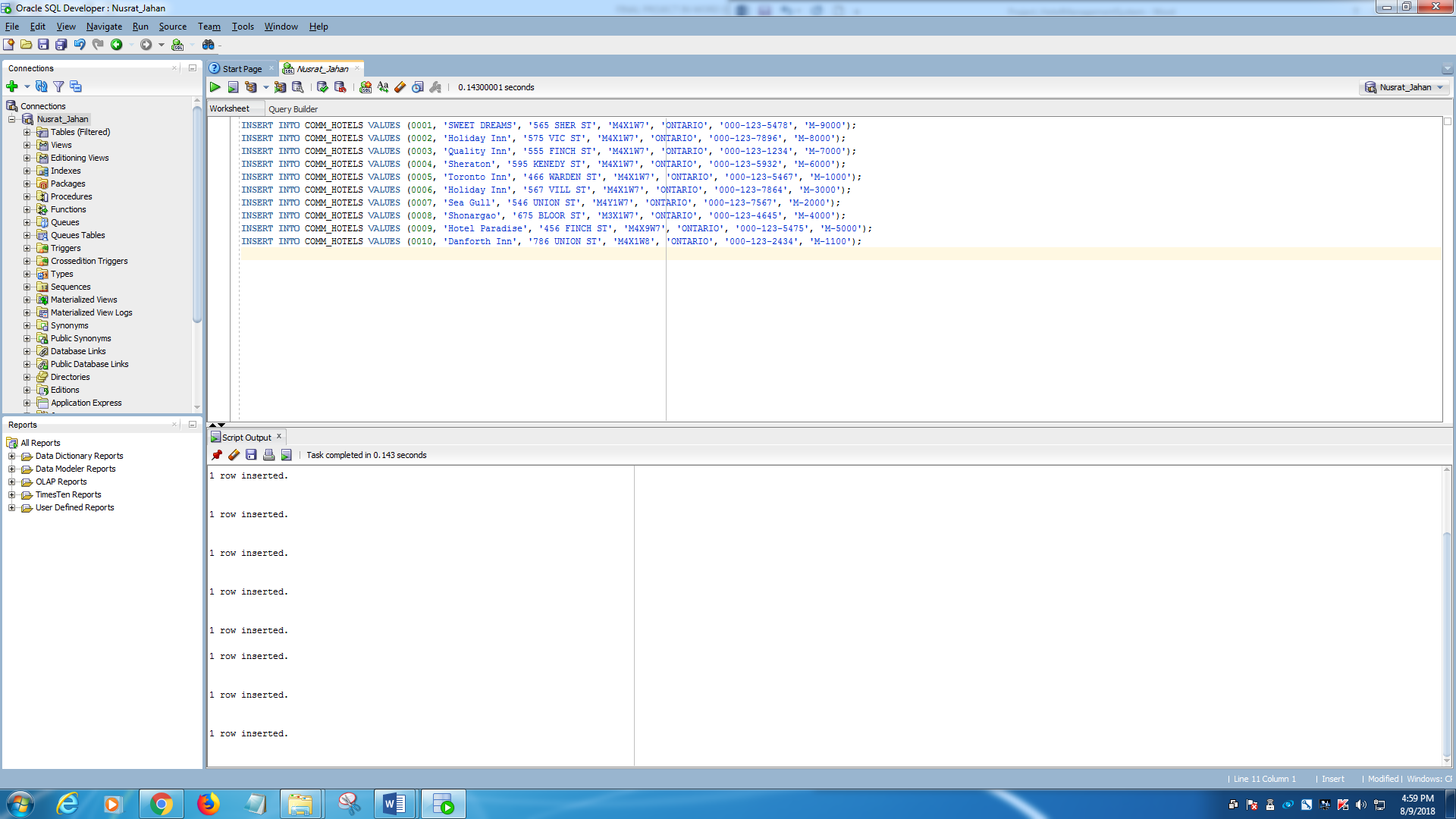
INSERT INTO COMM\_HOTELS VALUES (0006, 'Holiday Inn', '567 VILL ST', 'M4X1W7', 'ONTARIO', '000-123-7864', 'M-3000');

INSERT INTO COMM\_HOTELS VALUES (0007, 'Sea Gull', '546 UNION ST', 'M4Y1W7', 'ONTARIO', '000-123-7567', 'M-2000');

INSERT INTO COMM\_HOTELS VALUES (0008, 'Shonargao', '675 BLOOR ST', 'M3X1W7', 'ONTARIO', '000-123-4645', 'M-4000');

INSERT INTO COMM\_HOTELS VALUES (0009, 'Hotel Paradise', '456 FINCH ST', 'M4X9W7', 'ONTARIO', '000-123-5475', 'M-5000');

INSERT INTO COMM\_HOTELS VALUES (0010, 'Danforth Inn', '786 UNION ST', 'M4X1W8', 'ONTARIO', '000-123-2434', 'M-1100');



**======== COMM\_ROOMS Table========**

INSERT INTO COMM\_ROOMS VALUES (101, 'SINGLE', 'MAX 2 ALLOWED', 200, 0002);

INSERT INTO COMM\_ROOMS VALUES (302, 'SINGLE', 'MAX 2 ALLOWED', 250, 0008);

INSERT INTO COMM\_ROOMS VALUES (701, 'SINGLE', 'MAX 2 ALLOWED', 200, 0001);

INSERT INTO COMM\_ROOMS VALUES (408, 'DOUBLE', 'MAX 4 ALLOWED', 400, 0003);

INSERT INTO COMM\_ROOMS VALUES (905, 'DOUBLE', 'MAX 4 ALLOWED', 300, 0002);

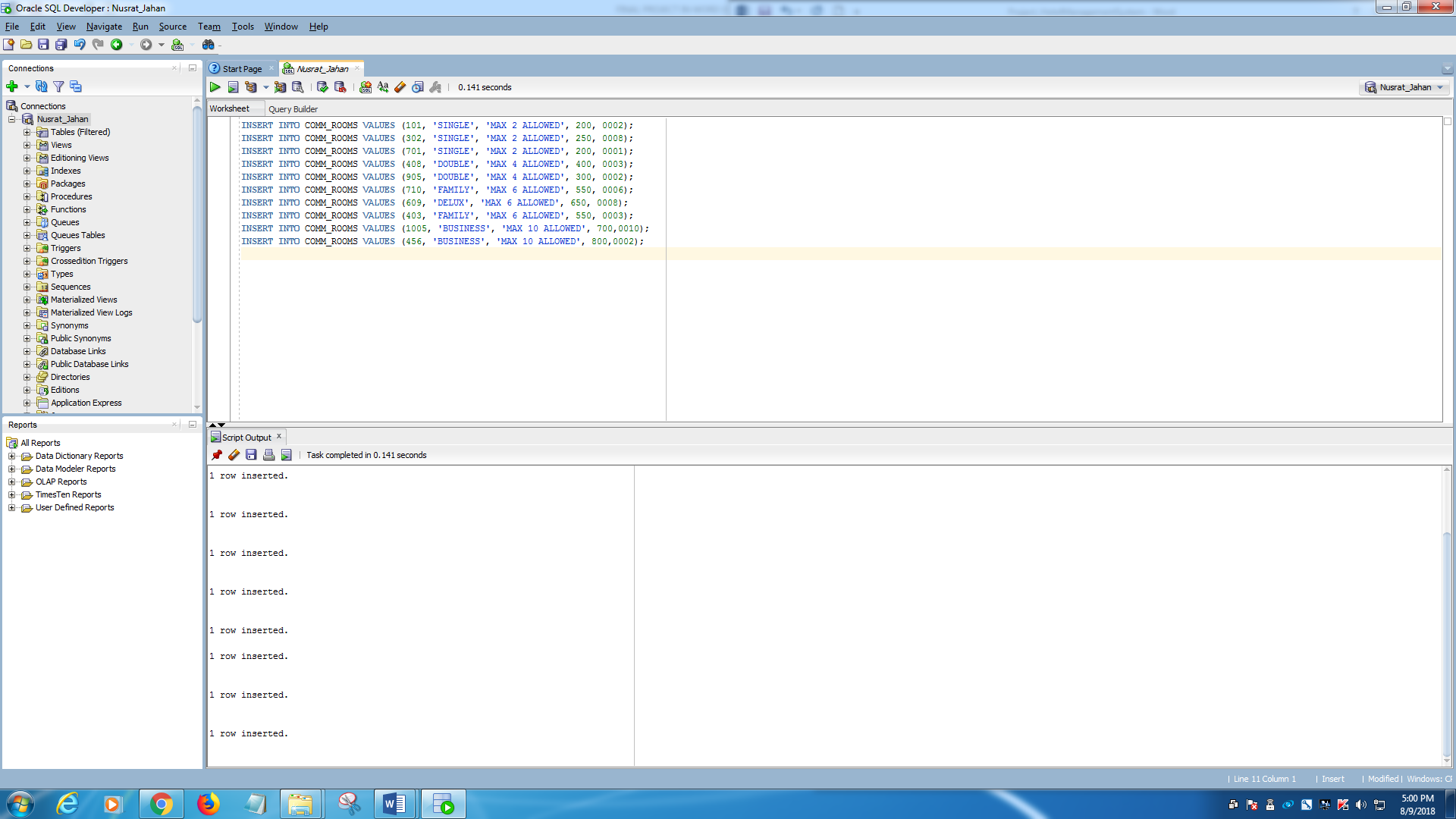
INSERT INTO COMM\_ROOMS VALUES (710, 'FAMILY', 'MAX 6 ALLOWED', 550, 0006);

INSERT INTO COMM\_ROOMS VALUES (609, 'DELUX', 'MAX 6 ALLOWED', 650, 0008);

INSERT INTO COMM\_ROOMS VALUES (403, 'FAMILY', 'MAX 6 ALLOWED', 550, 0003);

INSERT INTO COMM\_ROOMS VALUES (1005, 'BUSINESS', 'MAX 10 ALLOWED', 700,0010);

INSERT INTO COMM\_ROOMS VALUES (456, 'BUSINESS', 'MAX 10 ALLOWED', 800,0002);



**========COMM\_BOOKING========**

INSERT INTO COMM\_BOOKING VALUES (1602001, 161007, 1005, To\_Date('07-JAN-2018','dd-mm-yy'), '10-FEB-2018', '15-FEB-18', 5);

INSERT INTO COMM\_BOOKING VALUES (1602002, 161002, 302, To\_Date('10-FEB-2018','dd-mm-yy'), '10-MAR-18', '20-MAR-18', 10);

INSERT INTO COMM\_BOOKING VALUES (1602003, 161006, 710, To\_Date('12-MAR-2018','dd-mm-yy'), '05-APR-18', '08-APR-18',3);

INSERT INTO COMM\_BOOKING VALUES (1602004, 161010, 701, To\_Date('15- MAR -2018','dd-mm-yy'), '10-APR-18', '16- APR -18', 6);

INSERT INTO COMM\_BOOKING VALUES (1602005, 161004, 609, To\_Date('10- APR -2018','dd-mm-yy'), '20- APR -18', '30- APR -18', 10);

INSERT INTO COMM\_BOOKING VALUES (1602006, 161003, 905, To\_Date('21- APR -2018','dd-mm-yy'), '10-MAY-2018', '13-FEB-18',3);

INSERT INTO COMM\_BOOKING VALUES (1602007, 161005, 403, To\_Date('10-MAY-2018','dd-mm-yy'), '22-MAY-18', '27-MAY-18', 5);

INSERT INTO COMM\_BOOKING VALUES (1602008, 161008, 403, To\_Date('10-MAY-2018','dd-mm-yy'), '10-JUN-18', '14-JUN-18',4);

INSERT INTO COMM\_BOOKING VALUES (1602009, 161001, 701, To\_Date('01-JUN-2018','dd-mm-yy'), '10-JUN-18', '18-JUNE-17', 8);

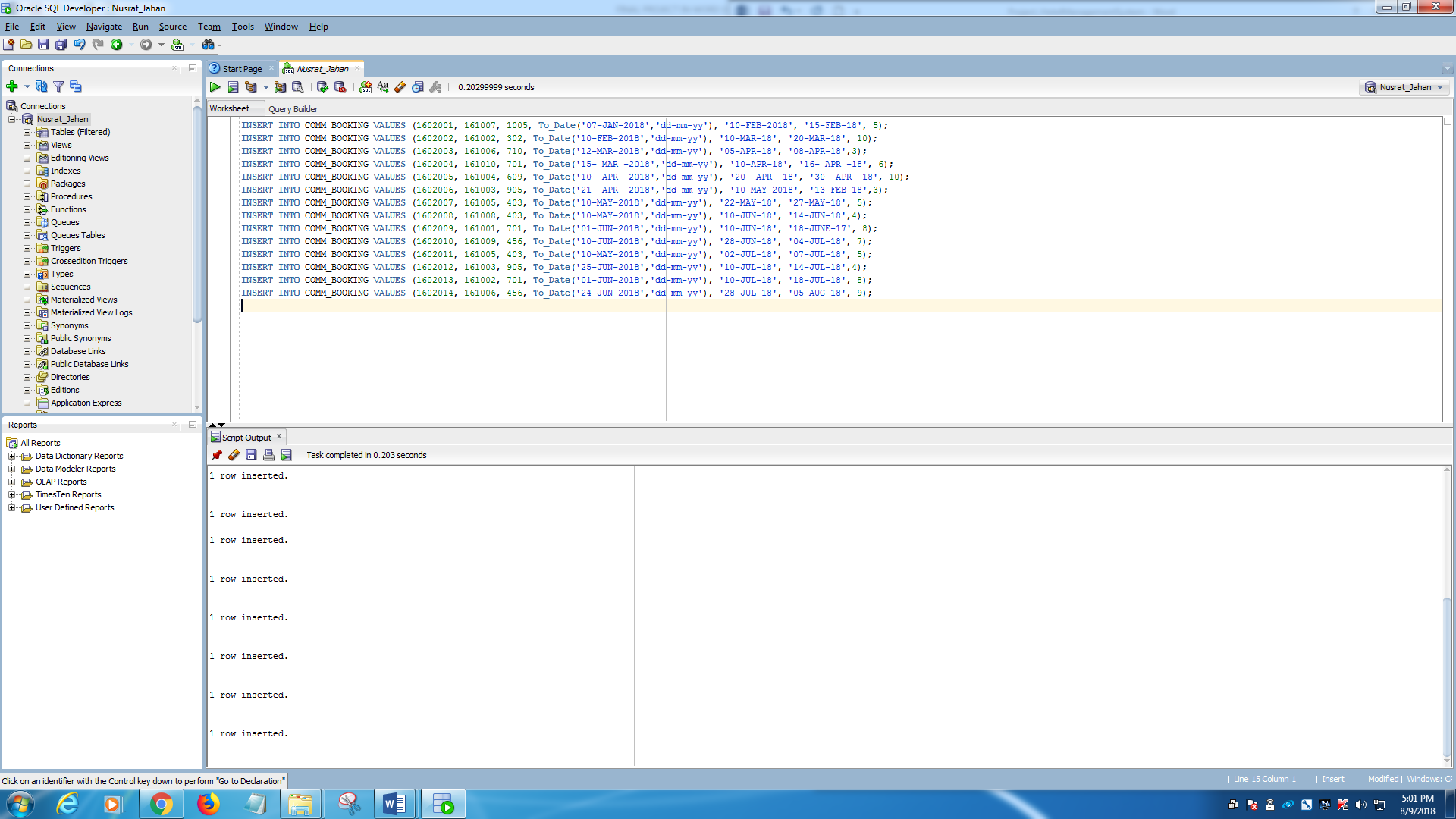
INSERT INTO COMM\_BOOKING VALUES (1602010, 161009, 456, To\_Date('10-JUN-2018','dd-mm-yy'), '28-JUN-18', '04-JUL-18', 7);

INSERT INTO COMM\_BOOKING VALUES (1602011, 161005, 403, To\_Date('10-MAY-2018','dd-mm-yy'), '02-JUL-18', '07-JUL-18', 5);

INSERT INTO COMM\_BOOKING VALUES (1602012, 161003, 905, To\_Date('25-JUN-2018','dd-mm-yy'), '10-JUL-18', '14-JUL-18',4);

INSERT INTO COMM\_BOOKING VALUES (1602013, 161002, 701, To\_Date('01-JUN-2018','dd-mm-yy'), '10-JUL-18', '18-JUL-18', 8);

INSERT INTO COMM\_BOOKING VALUES (1602014, 161006, 456, To\_Date('24-JUN-2018','dd-mm-yy'), '28-JUL-18', '05-AUG-18', 9);



**========COMM\_CUS\_DETAILS Table========**

INSERT INTO COMM\_CUS\_DETAILS VALUES (161001, 'ADAM', 'HECK', TO\_DATE('26-MARCH-1992', 'DD-MM-YY'), '10 VICTORIA', 'M3J1W7', 'CANADA', '647-111-1111', 'ad@yahoo.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161002, 'DAVID', 'DSUZA', TO\_DATE('6-MAY-1990', 'DD-MM-YY'), '20 VICTORIA', 'M3J1W7', 'CANADA', '416-222-2222', 'da@gmail.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161003, 'BARAK', 'OBAMA', TO\_DATE('2-JUNE-1972','DD-MM-YY'), '10 DC', 'M-2500', 'USA', '816-333-3333', 'ba@gmail.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161004, 'HILARY', 'CLINTON', TO\_DATE('21-JAN-1962','DD-MM-YY'), '103 LOS ANGELS', 'L-2010', 'USA', '816-444-4444', 'hi@yahoo.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161005, 'BOB', 'PATRICK', TO\_DATE('10-MARCH-1976','DD-MM-YY'), '10 BAY ', 'M3J5Y6', 'CANADA', '647-555-5555', 'bo@yahoo.com');

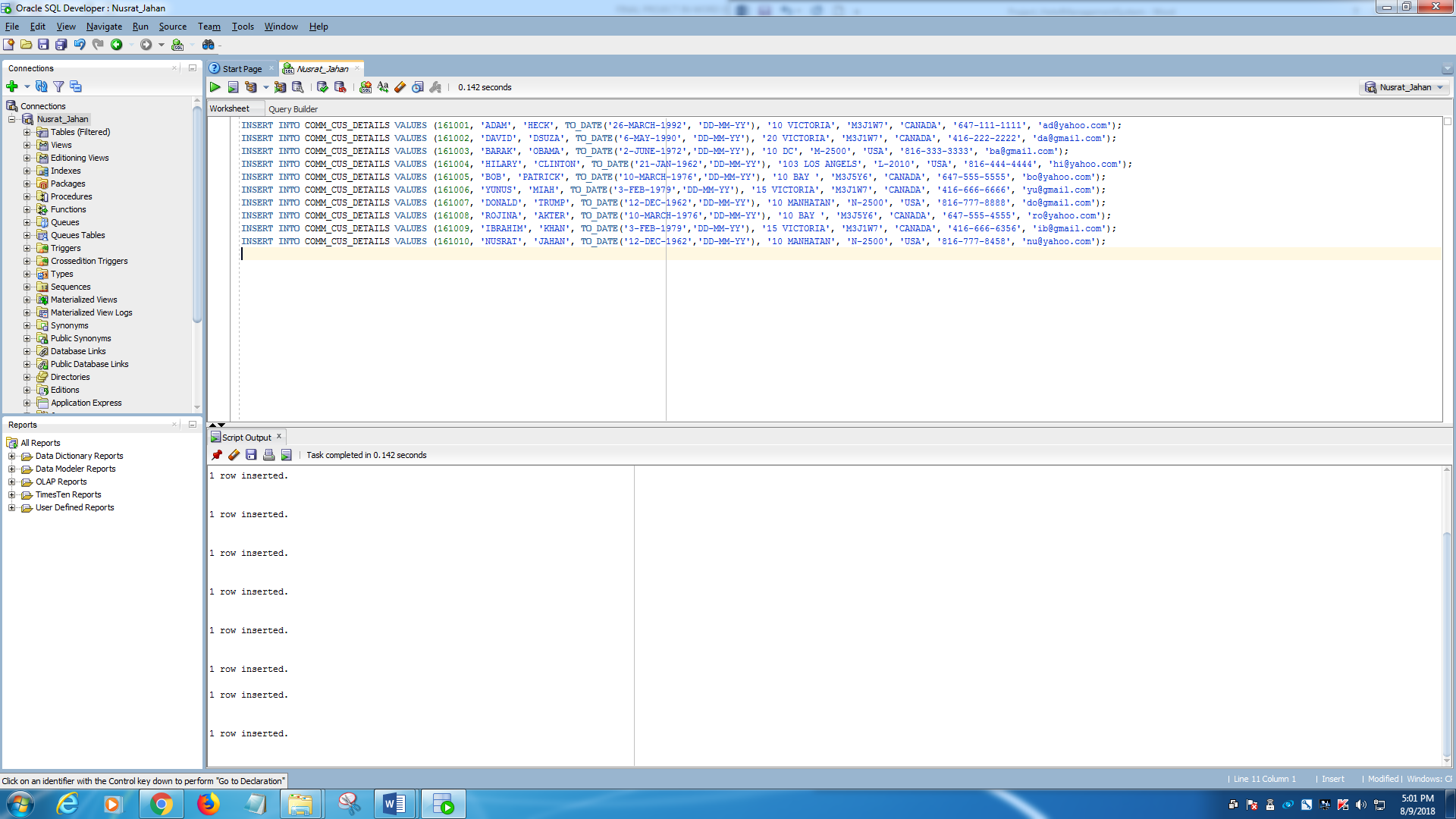
INSERT INTO COMM\_CUS\_DETAILS VALUES (161006, 'YUNUS', 'MIAH', TO\_DATE('3-FEB-1979','DD-MM-YY'), '15 VICTORIA', 'M3J1W7', 'CANADA', '416-666-6666', 'yu@gmail.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161007, 'DONALD', 'TRUMP', TO\_DATE('12-DEC-1962','DD-MM-YY'), '10 MANHATAN', 'N-2500', 'USA', '816-777-8888', 'do@gmail.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161008, 'ROJINA', 'AKTER', TO\_DATE('10-MARCH-1976','DD-MM-YY'), '10 BAY ', 'M3J5Y6', 'CANADA', '647-555-4555', 'ro@yahoo.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161009, 'IBRAHIM', 'KHAN', TO\_DATE('3-FEB-1979','DD-MM-YY'), '15 VICTORIA', 'M3J1W7', 'CANADA', '416-666-6356', 'ib@gmail.com');

INSERT INTO COMM\_CUS\_DETAILS VALUES (161010, 'NUSRAT', 'JAHAN', TO\_DATE('12-DEC-1962','DD-MM-YY'), '10 MANHATAN', 'N-2500', 'USA', '816-777-8458', 'nu@yahoo.com');



**=========COMM\_PAYMENT=========**

INSERT INTO COMM\_PAYMENT VALUES (98745621, 161004, 1602005, '547-895-6541', To\_Date('10-MAY-2019','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (92136547, 161006, 1602003, '547-523-3215', To\_Date('10-JUN-2021','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (93547865, 161007, 1602001, '215-965-4156', To\_Date('10-JUL-2021','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (96587413, 161002, 1602004, '798-825-1251', To\_Date('10-AUG-2019','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (98745622, 161008, 1602002, '547-895-6540', To\_Date('15-APR-2020','dd-mm-yy'));

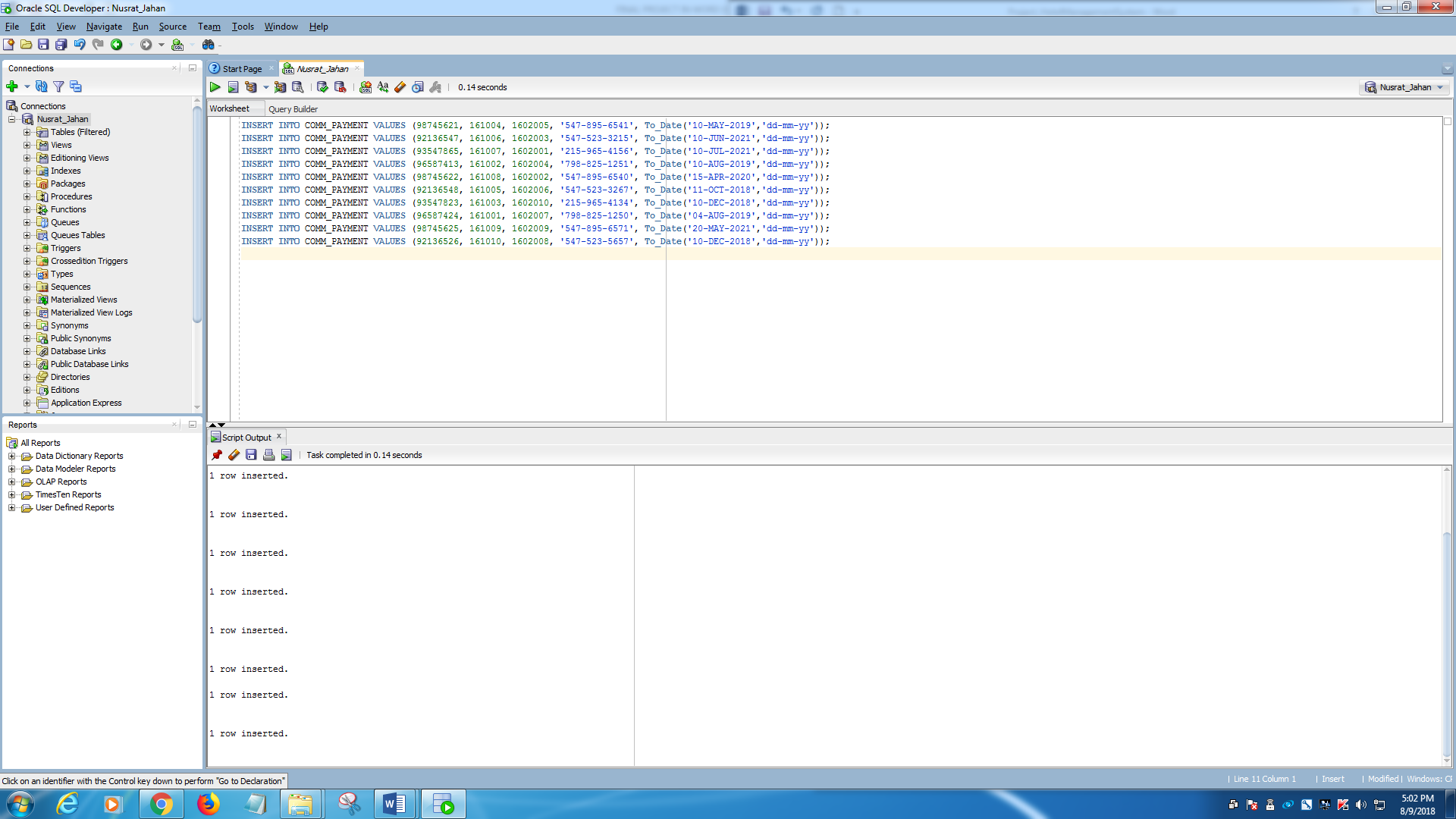
INSERT INTO COMM\_PAYMENT VALUES (92136548, 161005, 1602006, '547-523-3267', To\_Date('11-OCT-2018','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (93547823, 161003, 1602010, '215-965-4134', To\_Date('10-DEC-2018','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (96587424, 161001, 1602007, '798-825-1250', To\_Date('04-AUG-2019','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (98745625, 161009, 1602009, '547-895-6571', To\_Date('20-MAY-2021','dd-mm-yy'));

INSERT INTO COMM\_PAYMENT VALUES (92136526, 161010, 1602008, '547-523-5657', To\_Date('10-DEC-2018','dd-mm-yy'));



# **CONSTRAINTS**

**======Adding constraint on COMM\_EMPLOYEES Table=======**

ALTER TABLE COMM\_EMPLOYEES ADD CONSTRAINT HOTELS\_HOTELID\_FK FOREIGN KEY(HOTEL\_ID) REFERENCES COMM\_HOTELS(HOTEL\_ID);

**======Adding constraint on COMM\_ROOMS Table=======**

ALTER TABLE COMM\_ROOMS ADD CONSTRAINT ROOMS\_HOTELID\_FK FOREIGN KEY(HOTEL\_ID) REFERENCES COMM\_HOTELS(HOTEL\_ID);

**======Adding constraint on COMM\_BOOKING Table=======**

ALTER TABLE COMM\_BOOKING ADD CONSTRAINT BOOKING\_CUSTOMERID\_FK FOREIGN KEY(CUSTOMER\_ID) REFERENCES COMM\_CUS\_DETAILS(CUSTOMER\_ID);

ALTER TABLE COMM\_BOOKING ADD CONSTRAINT BOOKING\_ROOMNO\_FK FOREIGN KEY(ROOM\_NO) REFERENCES COMM\_ROOMS(ROOM\_NO);

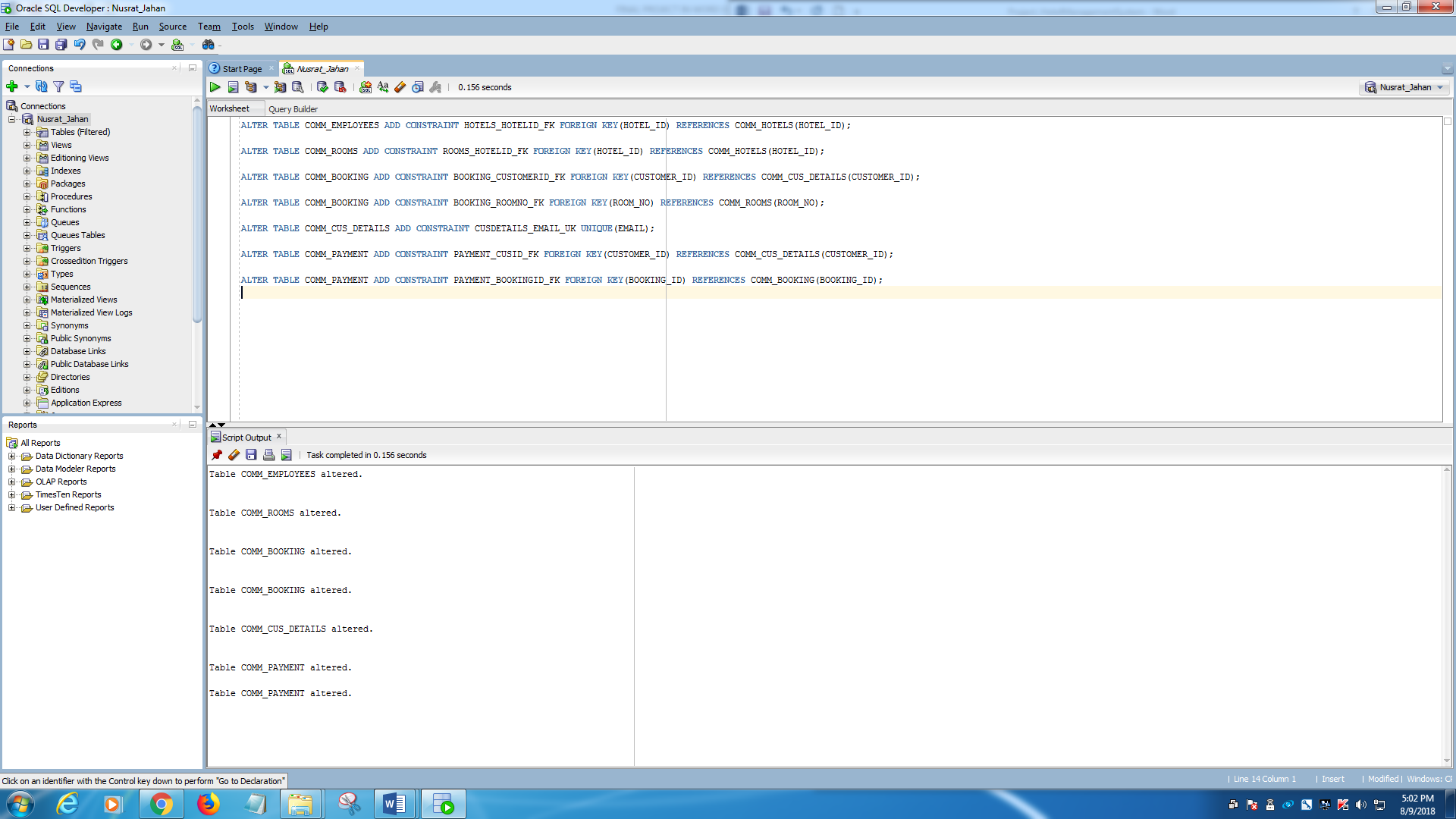
**======Adding constraint on COMM\_CUS\_DETAILS Table=======**

ALTER TABLE COMM\_CUS\_DETAILS ADD CONSTRAINT CUSDETAILS\_EMAIL\_UK UNIQUE(EMAIL);

**======Adding constraint on COMM\_PAYMENT Table=======**

ALTER TABLE COMM\_PAYMENT ADD CONSTRAINT PAYMENT\_CUSID\_FK FOREIGN KEY(CUSTOMER\_ID) REFERENCES COMM\_CUS\_DETAILS(CUSTOMER\_ID);

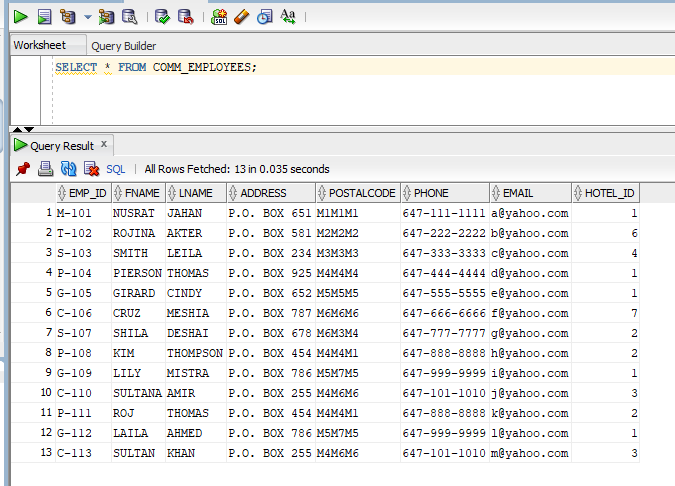
ALTER TABLE COMM\_PAYMENT ADD CONSTRAINT PAYMENT\_BOOKINGID\_FK FOREIGN KEY(BOOKING\_ID) REFERENCES COMM\_BOOKING(BOOKING\_ID);



# **SHOW THE TABLES**

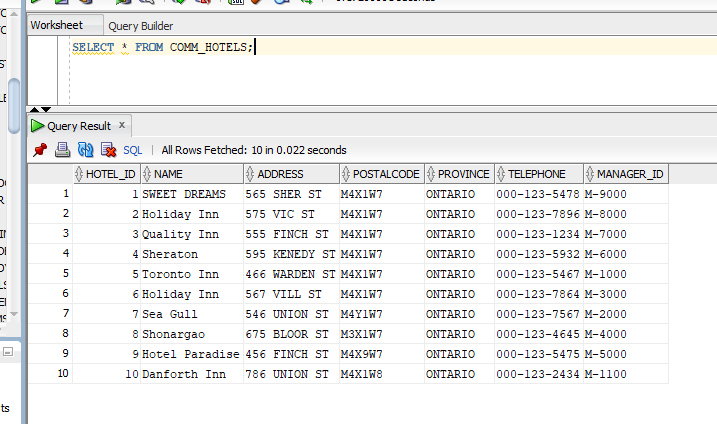
**=====COMM\_EMPLOYEES Table=====**

SELECT \* FROM COMM\_EMPLOYEES;



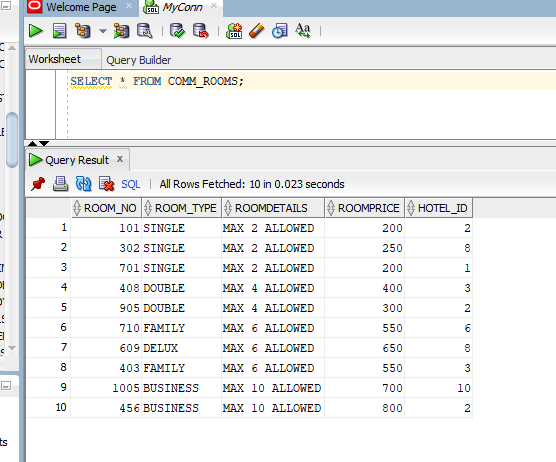
**======COMM\_HOTELS Table=======**

SELECT \* FROM COMM\_HOTELS;



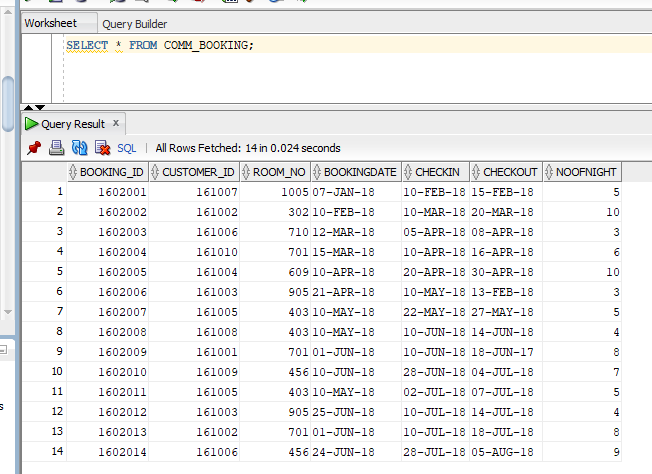
**=======COMM\_ROOMS Table=======**

SELECT \* FROM COMM\_ROOMS;



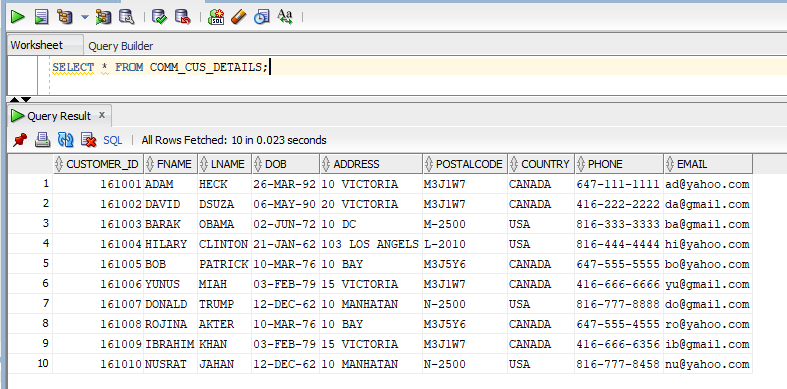
**=======COMM\_BOOKING Table=======**

SELECT \* FROM COMM\_BOOKING;



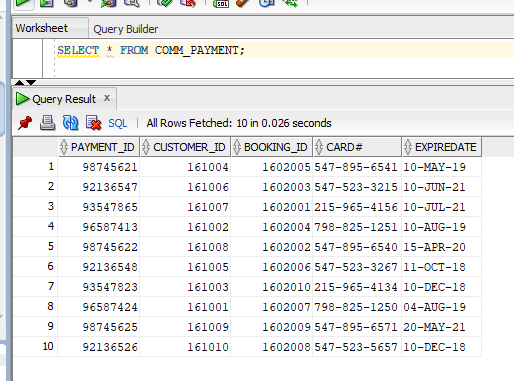
**========COMM\_CUS\_DETAILS Table=======**

SELECT \* FROM COMM\_CUS\_DETAILS;



**=======COMM\_PAYMENT Table=======**

SELECT \* FROM COMM\_PAYMENT;



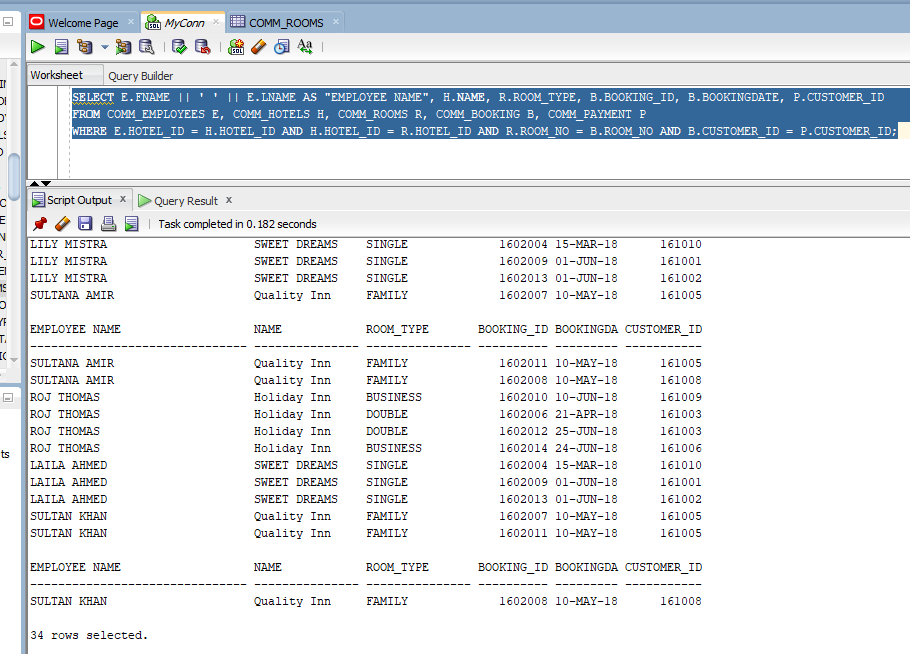
# **TESTING THE DATABASE-SQL QUERY**

## **Listing data from tables using alias for table name:**

SELECT E.FNAME || ' ' || E.LNAME AS "EMPLOYEE NAME", H.NAME, R.ROOM\_TYPE, B.BOOKING\_ID, B.BOOKINGDATE, P.CUSTOMER\_ID

FROM COMM\_EMPLOYEES E, COMM\_HOTELS H, COMM\_ROOMS R, COMM\_BOOKING B, COMM\_PAYMENT P

WHERE E.HOTEL\_ID = H.HOTEL\_ID AND H.HOTEL\_ID = R.HOTEL\_ID AND R.ROOM\_NO = B.ROOM\_NO AND B.CUSTOMER\_ID = P.CUSTOMER\_ID;



## **List of customer using alias, join, between and LIKE keyword**

SELECT E.EMP\_ID, E.FNAME, E.LNAME, E.ADDRESS,H.NAME, B.BOOKING\_ID, C.FNAME|| ' ' ||C.LNAME AS "CUSTOMER\_NAME",

C.COUNTRY FROM COMM\_EMPLOYEES E

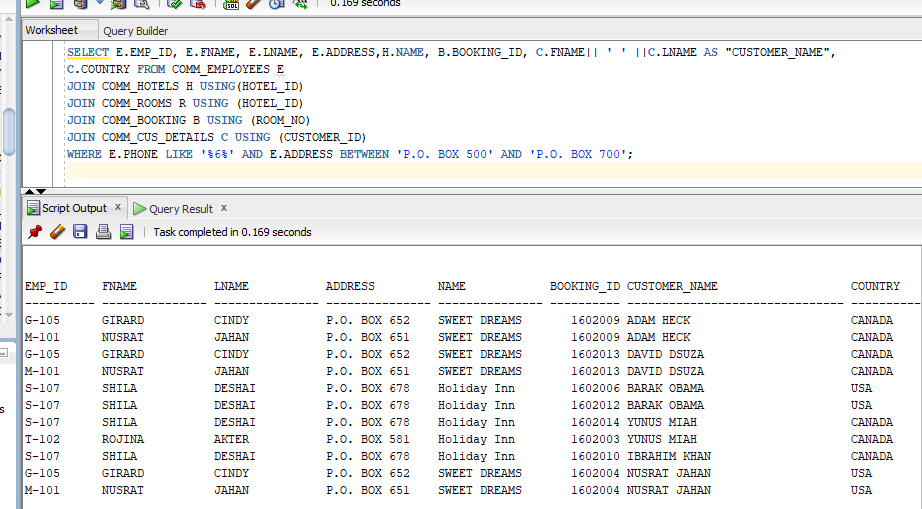
JOIN COMM\_HOTELS H USING(HOTEL\_ID)

JOIN COMM\_ROOMS R USING (HOTEL\_ID)

JOIN COMM\_BOOKING B USING (ROOM\_NO)

JOIN COMM\_CUS\_DETAILS C USING (CUSTOMER\_ID)

WHERE E.PHONE LIKE '%6%' AND E.ADDRESS BETWEEN 'P.O. BOX 500' AND 'P.O. BOX 700';



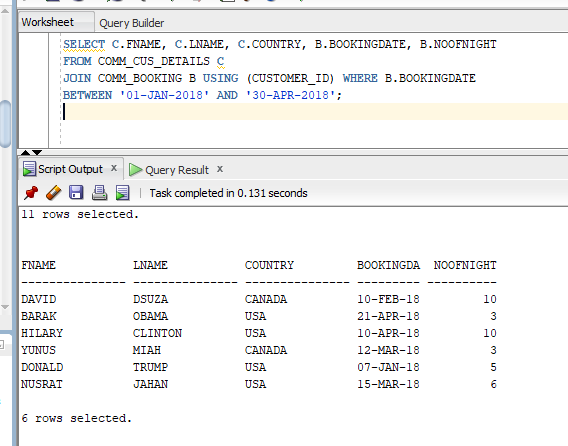
## **Retrieve customer data using between and keyword:**

SELECT C.FNAME, C.LNAME, C.COUNTRY, B.BOOKINGDATE, B.NOOFNIGHT

FROM COMM\_CUS\_DETAILS C

JOIN COMM\_BOOKING B USING (CUSTOMER\_ID) WHERE B.BOOKINGDATE

BETWEEN '01-JAN-2018' AND '30-APR-2018';



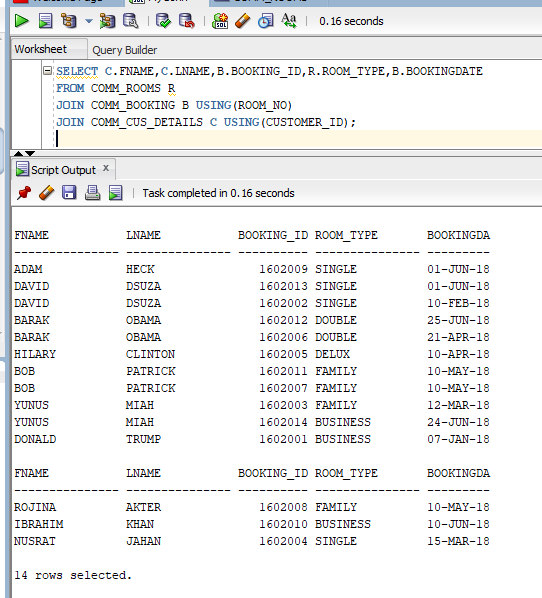
## **Listing customers’ first name, last name, Booking\_ID, Room\_Type, Booking date from table**

SELECT C.FNAME,C.LNAME,B.BOOKING\_ID,R.ROOM\_TYPE,B.BOOKINGDATE

FROM COMM\_ROOMS R

JOIN COMM\_BOOKING B USING(ROOM\_NO)

JOIN COMM\_CUS\_DETAILS C USING(CUSTOMER\_ID);



## **Listing hotel’s name, address, rooms’ description, booking date, and customers’ name if a customer’s first name is “Yunus” or “Donald” :**

SELECT H.NAME,H.ADDRESS,R.ROOMDETAILS,B.BOOKINGDATE,C.FNAME|| ' ' ||C.LNAME AS "CUSTOMER NAME",C.COUNTRY

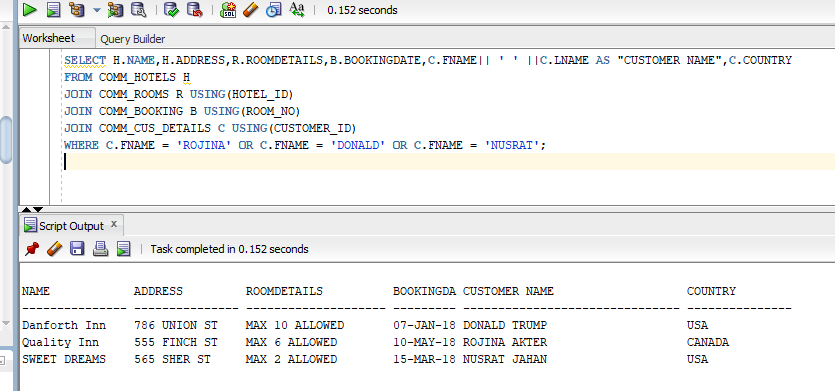
FROM COMM\_HOTELS H

JOIN COMM\_ROOMS R USING(HOTEL\_ID)

JOIN COMM\_BOOKING B USING(ROOM\_NO)

JOIN COMM\_CUS\_DETAILS C USING(CUSTOMER\_ID)

WHERE C.FNAME = 'ROJINA' OR C.FNAME = 'DONALD' OR C.FNAME = 'NUSRAT';



# **TESTING THE DATABASE-PL/SQL QUERY**

## **Creating a Sequence where hotel id will increment by 1**

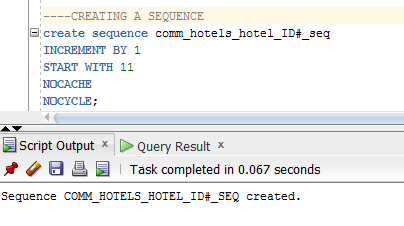
create sequence COMM\_HOTELS\_HOTEL\_ID#\_SEQ

INCREMENT BY 1

START WITH 11

NOCACHE

NOCYCLE;



## **Inserting value using sequence- where we inserted a new hotel using the hotel id sequence**

DECLARE

lv\_name\_txt comm\_hotels.name%TYPE := 'RUPOSHI BANGLA';

lv\_address\_txt comm\_hotels.address%TYPE := 'Brimley Rd';

lv\_pcode\_txt comm\_hotels.postalcode%TYPE := 'M1M1V2';

lv\_province\_txt comm\_hotels.province%TYPE := 'ONTARIO';

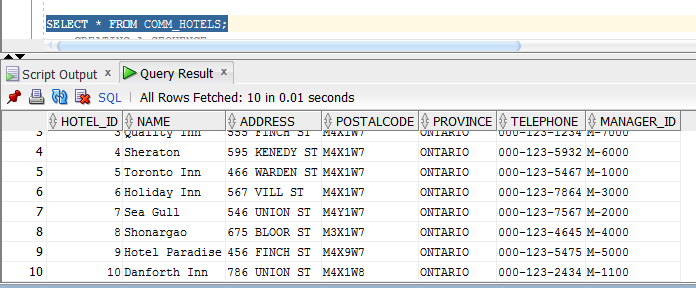
lv\_manid\_txt comm\_hotels.manager\_id%TYPE := '1200';

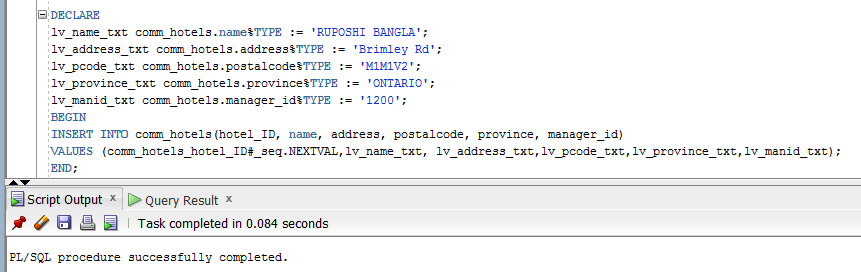
BEGIN

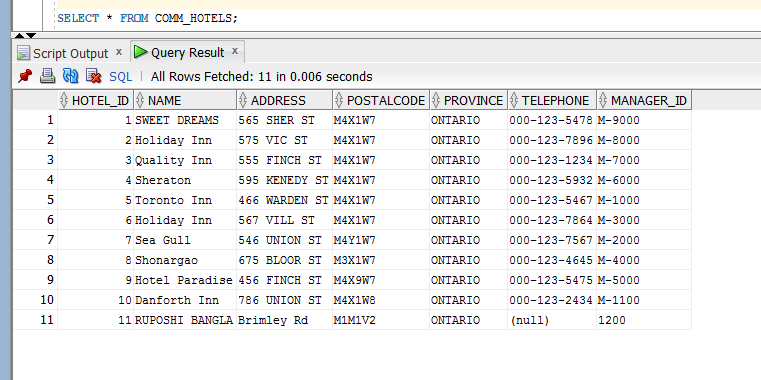
INSERT INTO comm\_hotels(hotel\_ID, name, address, postalcode, province, manager\_id)

VALUES (comm\_hotels\_hotel\_ID#\_seq.NEXTVAL,lv\_name\_txt, lv\_address\_txt,lv\_pcode\_txt,lv\_province\_txt,lv\_manid\_txt);

END;







## **Use of %RowType attribute to retrieve the employee information with hotel id 6**

DECLARE

rec\_comm\_emp comm\_employees%ROWTYPE;

BEGIN

SELECT \*

INTO rec\_comm\_emp

FROM comm\_employees

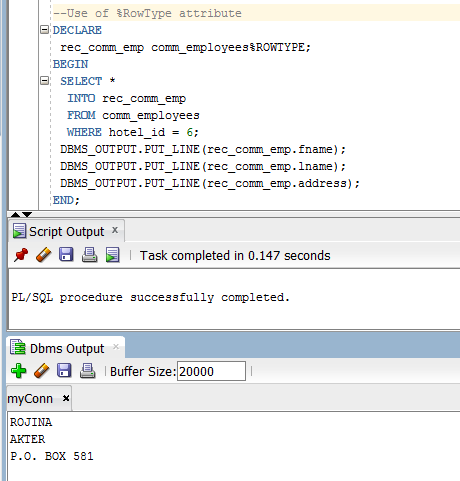
WHERE hotel\_id = 6;

DBMS\_OUTPUT.PUT\_LINE(rec\_comm\_emp.fname);

DBMS\_OUTPUT.PUT\_LINE(rec\_comm\_emp.lname);

DBMS\_OUTPUT.PUT\_LINE(rec\_comm\_emp.address);

END;



## **Data Insert Using Record – where we inserted a new employee data in the comm\_employees table**

DECLARE

rec\_comm\_emp comm\_employees%ROWTYPE;

BEGIN

rec\_comm\_emp.emp\_id := 'S-005';

rec\_comm\_emp.fname := 'Teas';

rec\_comm\_emp.lname := 'Premium teas';

rec\_comm\_emp.address := 'Milady Rd';

rec\_comm\_emp.postalcode := 'M1MlH2';

rec\_comm\_emp.phone := '598374598';

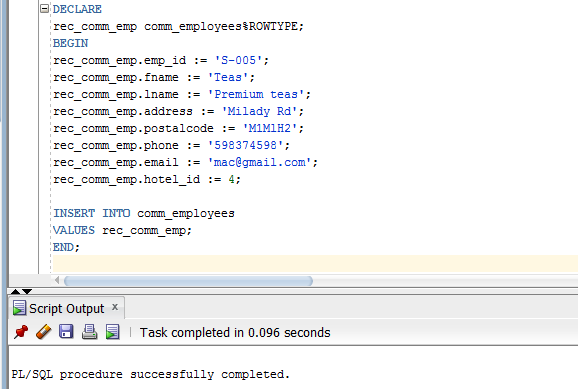
rec\_comm\_emp.email := 'mac@gmail.com';

rec\_comm\_emp.hotel\_id := 4;

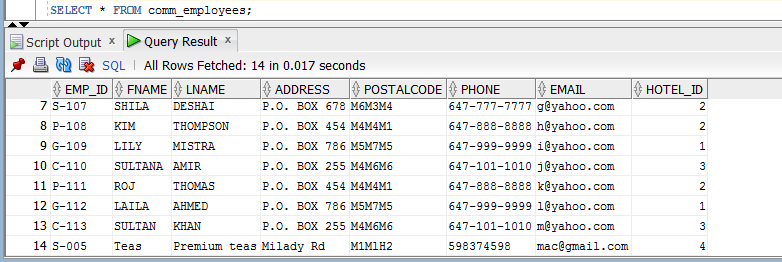
INSERT INTO comm\_employees

VALUES rec\_comm\_emp;

END;



SELECT \* FROM comm\_employees;



## **Create Function**

CREATE OR REPLACE FUNCTION comm\_cust\_f

(p\_id IN NUMBER,

p\_first IN VARCHAR2,

p\_last IN VARCHAR2,

p\_phone IN VARCHAR2,

p\_email IN VARCHAR2)

RETURN VARCHAR2

IS

lv\_custinfo\_txt VARCHAR2(255);

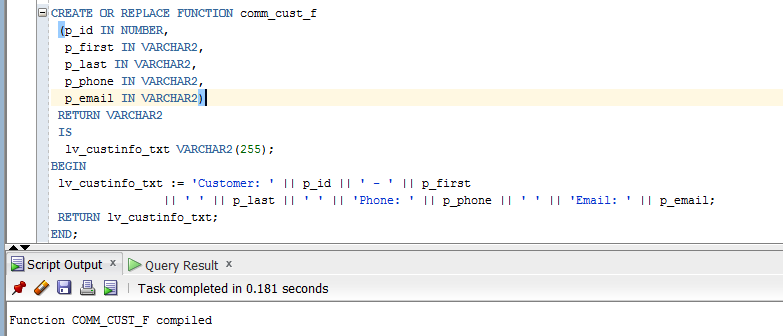
BEGIN

lv\_custinfo\_txt := 'Customer: ' || p\_id || ' - ' || p\_first

|| ' ' || p\_last || ' ' || 'Phone: ' || p\_phone || ' ' || 'Email: ' || p\_email;

RETURN lv\_custinfo\_txt;

END;



## **Display the customer details using the function created**

DECLARE

lv\_cusDetail\_txt VARCHAR2 (255);

lv\_id\_num comm\_cus\_details.customer\_id%TYPE := 161005;

lv\_first\_txt comm\_cus\_details.fname%TYPE := 'BOB';

lv\_last\_txt comm\_cus\_details.lname%TYPE := 'PATRICK';

lv\_phone\_txt comm\_cus\_details.phone%TYPE := '647-555-5555';

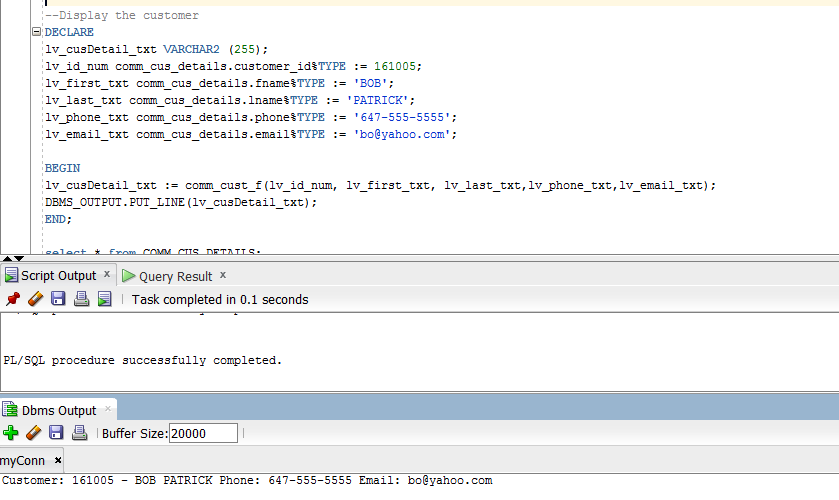
lv\_email\_txt comm\_cus\_details.email%TYPE := 'bo@yahoo.com';

BEGIN

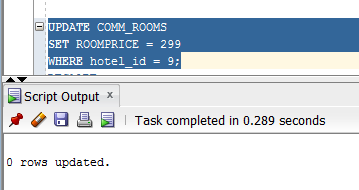
lv\_cusDetail\_txt := comm\_cust\_f(lv\_id\_num, lv\_first\_txt, lv\_last\_txt,lv\_phone\_txt,lv\_email\_txt);

DBMS\_OUTPUT.PUT\_LINE(lv\_cusDetail\_txt);

END;



## **User define exception for room price with hotel ID 1 and 9**



DECLARE

ex\_prod\_update EXCEPTION;

BEGIN

UPDATE COMM\_ROOMS

SET roomprice=225

WHERE hotel\_id = 1;

IF SQL %NOTFOUND THEN

RAISE ex\_prod\_update;

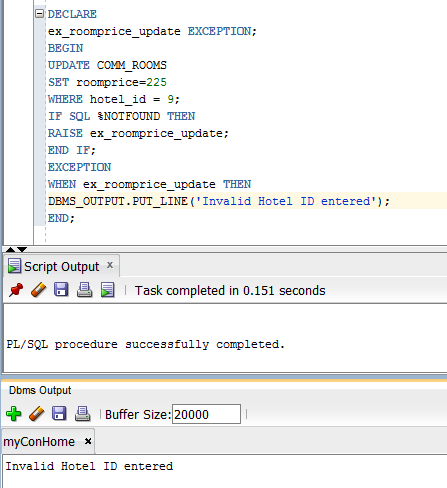
END IF;

EXCEPTION

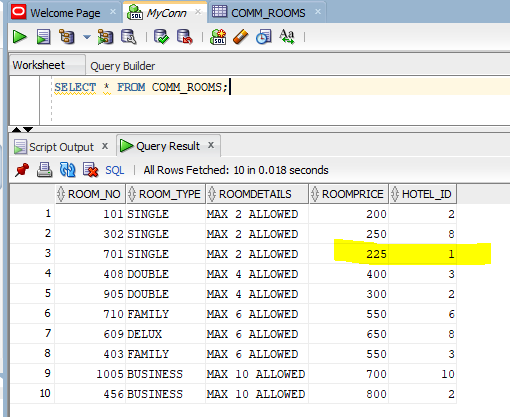
WHEN ex\_prod\_update THEN

DBMS\_OUTPUT.PUT\_LINE('Hotel ID not found);

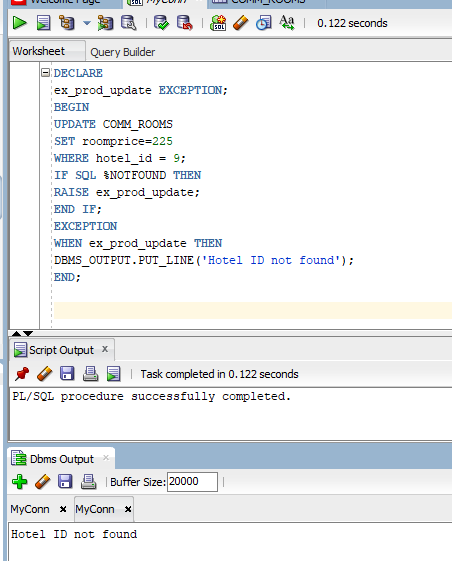
END;



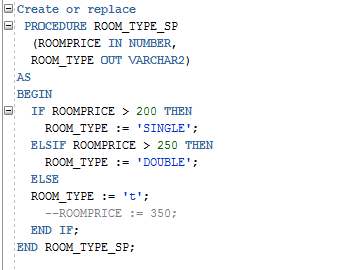
SELECT \* FROM COMM\_ROOMS;

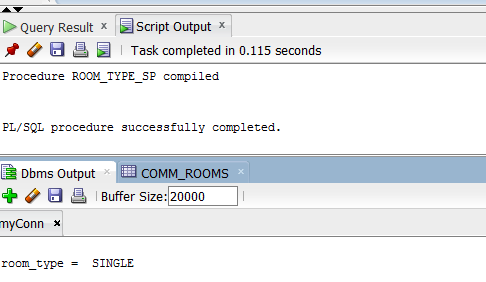


**User define exception for room price for hotel id 9**

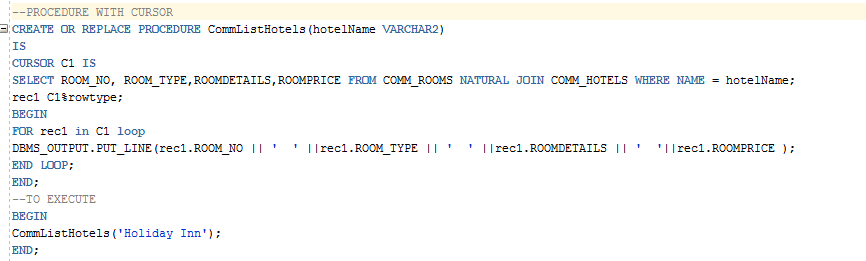


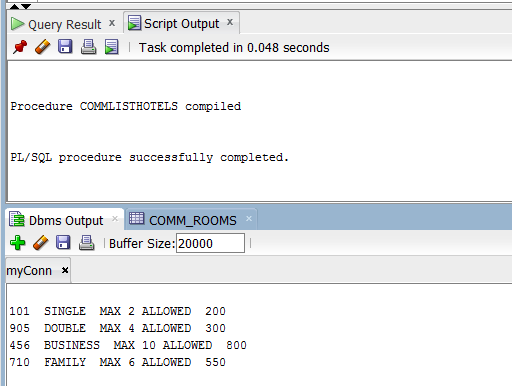
## **Creating Procedure with room type**



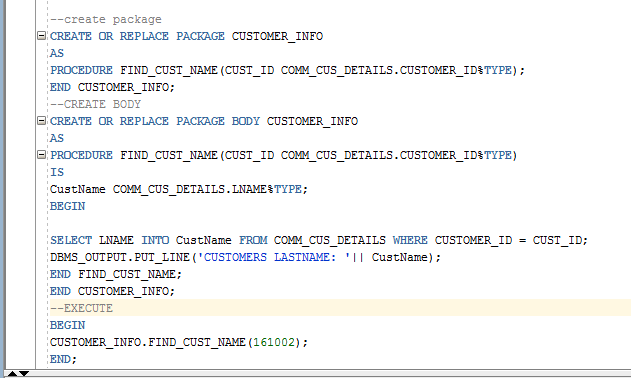


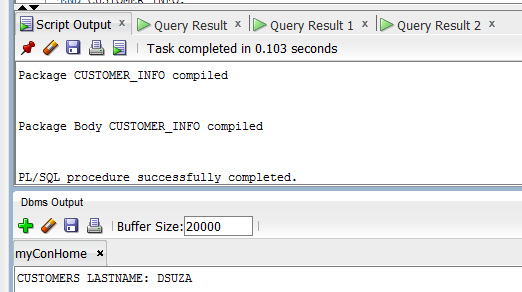
## **Creating Cursor and displaying details of rooms available in the hotel Holiday Inn**





## **Creating Package and displaying customers last name according to customer id**





# **CONCLUSION**

From the database, any or all created tables can be deleted by DROP Clause in the following way:

DROP TABLE COMM\_EMPLOYEES CASCADE CONSTRAINTS;

DROP TABLE COMM\_HOTELS CASCADE CONSTRAINTS;

DROP TABLE COMM\_ROOMS CASCADE CONSTRAINTS;

DROP TABLE COMM\_BOOKING CASCADE CONSTRAINTS;

DROP TABLE COMM\_CUS\_DETAILS CASCADE CONSTRAINTS;

DROP TABLE COMM\_PAYMENT CASCADE CONSTRAINTS;

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***