Program Specification

Input Descriptions:

EMPLOYEES

Bruce Wayne

phone = 1-800-BAT-CAVE

email = [batman@batcave.com](mailto:batman@batcave.com)

hire date = 01-JAN-89

job id = 1

salary = 99999999

commission = 0

manager id = 1

department id = 1

Diana Prince

phone = 123-321-1111

email = [wonderwoman@hotmail.com](mailto:wonderwoman@hotmail.com)

hire date = 31-APR-56

job id = 3

salary = 150000

commission = 0

manager id = 1

department id = 4

Arthur Curry

phone = NULL

email = [fishguy@atlantis.com](mailto:fishguy@atlantis.com)

hire date = 03-AUG-92

job id = 1

salary = 35000

commission = 10%

manager id = 1

department id = 1

Barry Allen

phone = 353-382-8992

email = [flash@gmail.com](mailto:flash@gmail.com)

hire date = 12-MAY-93

job id = 4

salary = 820000

commission = 0

manager id = 1

department id = 3

Hal Jordan

phone = 111-555-5555

email = [greenlantern@spacetalk.com](mailto:greenlantern@spacetalk.com)

hire date = 24-FEB-89

job id = 1

salary = 45000

commission = 15%

manager id = 2

department id = 4

Victor Stone

phone = 123-323-2344

email = [cyborg@internet.com](mailto:cyborg@internet.com)

hire date = 12-NOV-96

job id = 6

salary = 850000

commission = 0

manager id = 1

department id = 5

DEPARTMENTS

IT Development

manager id = 3

location id = 1

IT Administration

manager id = 1

location id = 3

Sales

manager id = 2

location id = 1

Human Resources

manager id = 6

location id = 1

Cyber Security

manager id = 5

location id = 4

Accounting

manager id = 4

location id = 5

LOCATIONS

123 Sesame St., 10001 New York, New York, America

999 Bratwurst Ave., 60603 Frankfurt, Central, Germany

13 Marzow St., 00263 Halare, West, Zimbabwe

32 Lumberjack Acres, G0W Quebec City, Quebec, Canada

Av Paulista. 2048 Bela Vista, 18240-000 Rio de Janeiro, Brazil

8228 King Abdul Aziz Rd, 11543 Riyadh, Riyadh, Saudi Arabia

COUNTRIES

America

country code = 1

Germany

country code = 2

Zimbabwe

country code = 3

Canada

country code = 5

Brazil

country code = 6

Saudi Arabia

country code = 4

REGIONS

1 - North America

2 - Europe

3 - Africa

4 - Middle East

5 - Asia

6 - South America

JOBS

Database Administrator

min\_salary = 65000

max\_salary = 85000

Systems Engineer

min\_salary = 85000

max\_salary = 120000

Web Developer

min\_salary = 35000

max\_salary = 55000

Software Developer

min\_salary = 55000

max\_salary = 75000

System Administrator

min\_salary = 50000

max\_salary = 70000

Network Administrator

min\_salary = 85000

max\_salary = 12000

JOB\_HISTORY

Bruce Wayne

start\_date = 11/13/2018

end\_date = NULL

job\_id = 4

department\_id = 2

Diana Prince

start\_date = 11/13/2018

end\_date = NULL

job\_id = 4

department\_id = 2

Arthur Curry

start\_date = 10/05/2003

end\_date = NULL

job\_id = 3

department\_id = 2

Barry Allen

start\_date = 08/30/2010

end\_date = 08/30/2011

job\_id = 1

department\_id = 3

Hal Jordan

start\_date = 01/15/2008

end\_date = NULL

job\_id = 4

department\_id = 4

Victor Stone

start\_date = 05/01/2003

end\_date = 08/03/2008

job\_id = 6

department\_id = 1

Output Descriptions

CREATE\_TABLES\_SP

DROP\_TABLES\_SP

ALTER\_TABLE\_FK\_SP

POP\_TABLES\_SP

EMP\_LENGTH\_SP

SAL\_DIFF\_SP

EMP\_QUERY\_SP

UPDATE\_JOBHIST\_SP

UPDATE\_DEPT\_SP

CURR\_EMP\_SP

FOR\_LOOP\_SP (Raise Min salaries)

LIST\_MAN\_SF

Report for listing an employee’s department

Report for listing an employee’s profile

Data Structure Descriptions

REGIONS

region\_id NUMBER(4) [pk]

region\_name VARCHAR2(20)

JOBS

job\_id NUMBER(4) [pk]

job\_title VARCHAR2(64)

min\_salary NUMBER(9,2)

max\_salary NUMBER(9,2)

JOB\_HISTORY

employee\_id NUMBER(4) [pk] [fk]

start\_date DATE [fk]

end\_date DATE

job\_id NUMBER(4) [pk] [fk]

department\_id NUMBER(4) [pk] [fk]

EMPLOYEES

employee\_id NUMBER(8) [pk]

first\_name VARCHAR2(40)

last\_name VARCHAR2(50)

email VARCHAR2(64)

phone\_number VARCHAR2(25)

hire\_date DATE

job\_id NUMBER(4)

salary NUMBER(10)

commission\_pct NUMBER(3)

manager\_id NUMBER(8) [fk]

department\_id NUMBER(4) [fk]

DEPARTMENTS

department\_id NUMBER(4) [pk]

department\_name VARCHAR2(40)

manager\_id NUMBER(8) [fk]

location\_id NUMBER(10) [fk]

LOCATIONS

location\_id NUMBER (10) [pk]

street\_address VARCHAR2 (64)

postal\_code VARCHAR2(20)

city VARCHAR2 (60)

state\_province VARCHAR2 (25)

country\_id NUMBER(3) [fk]

COUNTRIES

country\_id NUMBER (3) [pk]

country\_name VARCHAR2(60)

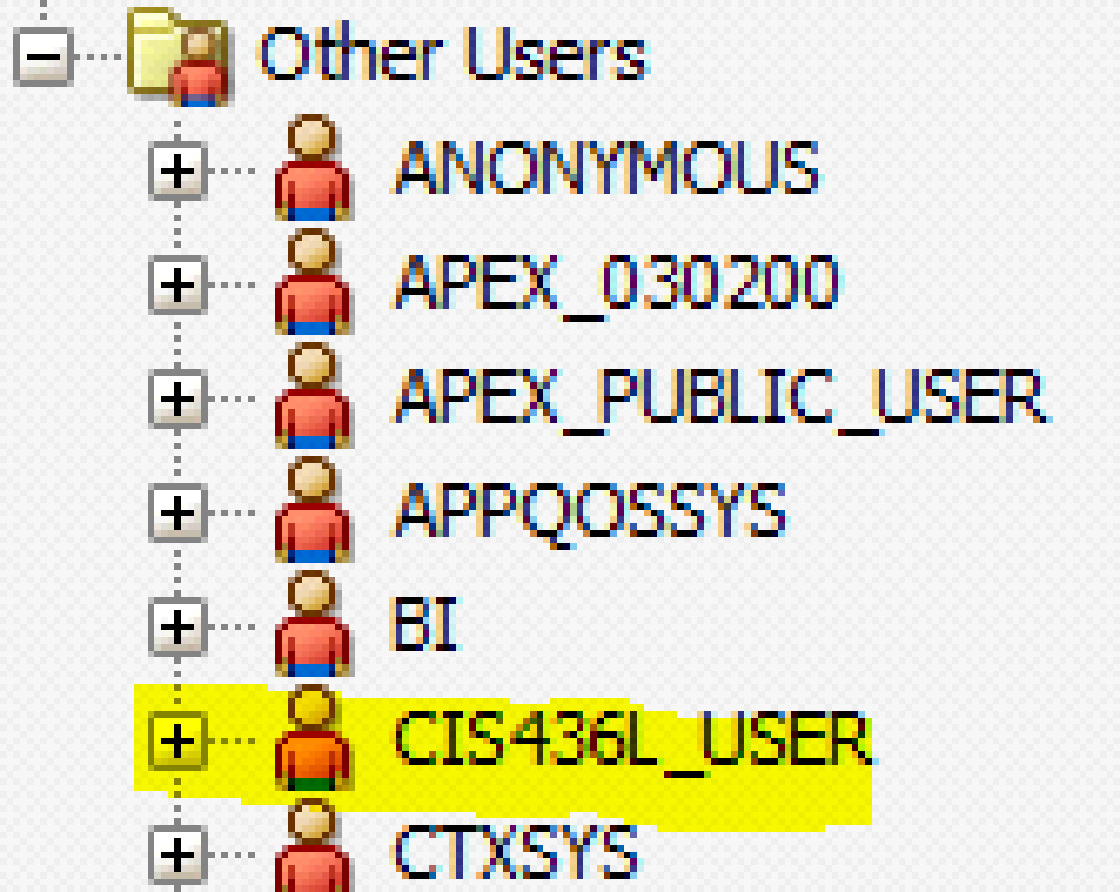
region\_id NUMBER(5) [fk]

Program Description

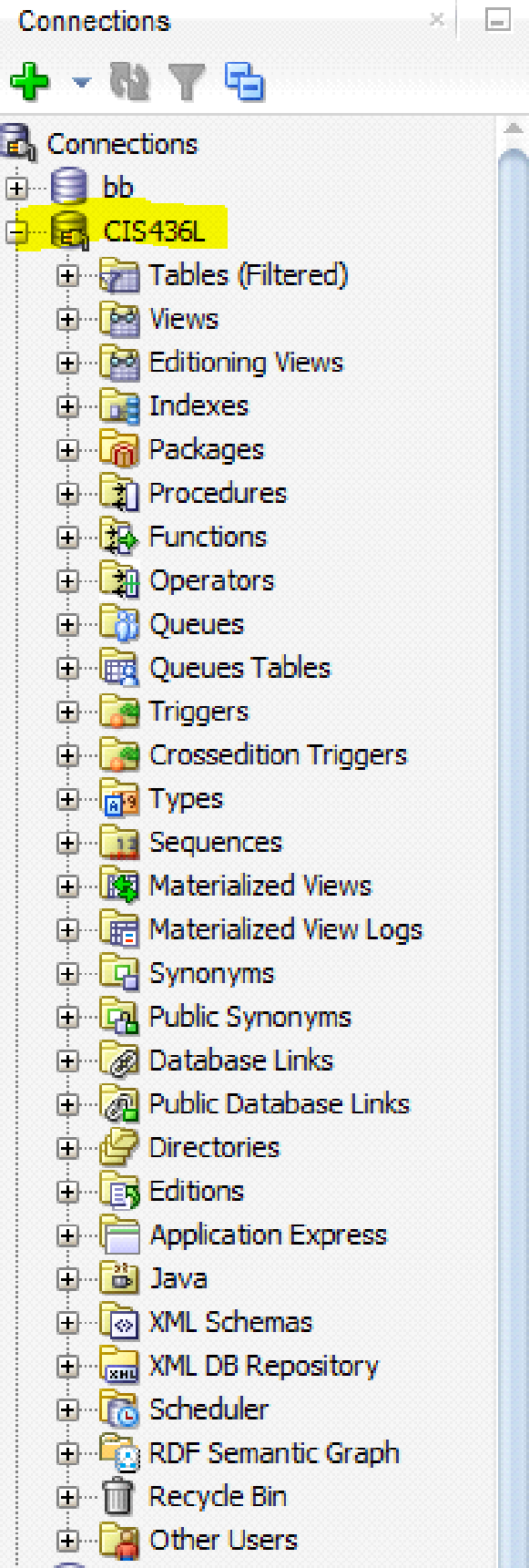
* We need to create a separate user and database
* We need to create 7 tables: JOBS, JOB\_HISTORY, REGIONS, EMPLOYEES, DEPARTMENTS, LOCATIONS, COUNTRIES
* Provide capability to populate all 7 tables above with data
* Validate the data inserted into the above tables
* Create Procedure to drop all DB tables and sequences if they exist (Reset database from scratch)
* Create Procedure to create all tables and sequences (Recreates blank tables)
* Company needs an alter procedure for foreign key constraints (due to issue with foreign keys in two tables dependent on one another)
* Company needs a procedure for populating all tables with data
* Company needs a procedure to determine employee work length status
* Company needs a procedure to determine the difference between a job’s maximum and minimum salary
* Company needs a procedure to output employee info
* Company needs a procedure to update job id of an employee in the job history table (for employees changing jobs)
* Company needs a procedure to insert new department in Departments table
* Company needs a procedure to determine employment status
* Company needs a procedure to display the number of jobs
* Company needs procedure to raise minimum salary (by $5000)
* Create report to show which department each employee works in
* Create report to show employee profiles
* Company needs a function to list the manager of a specified department

Create new user/database

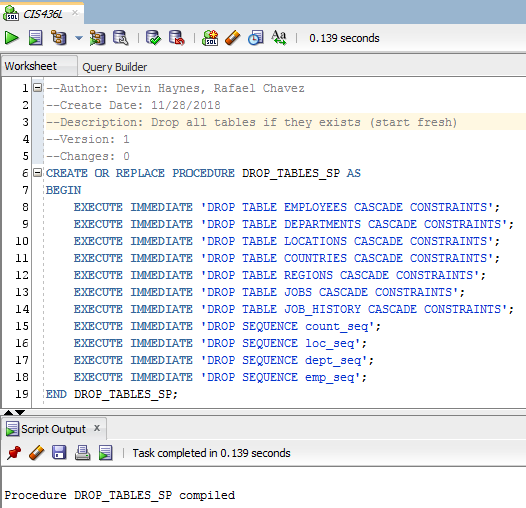
User:



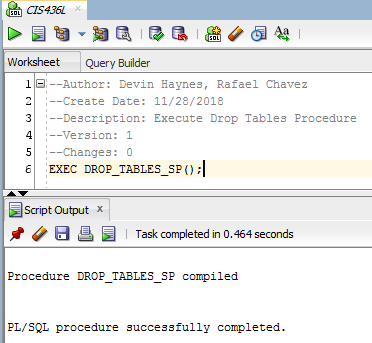
Database Connection:



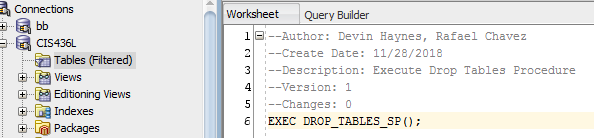
Create Procedure to drop all DB tables and sequences if they exist



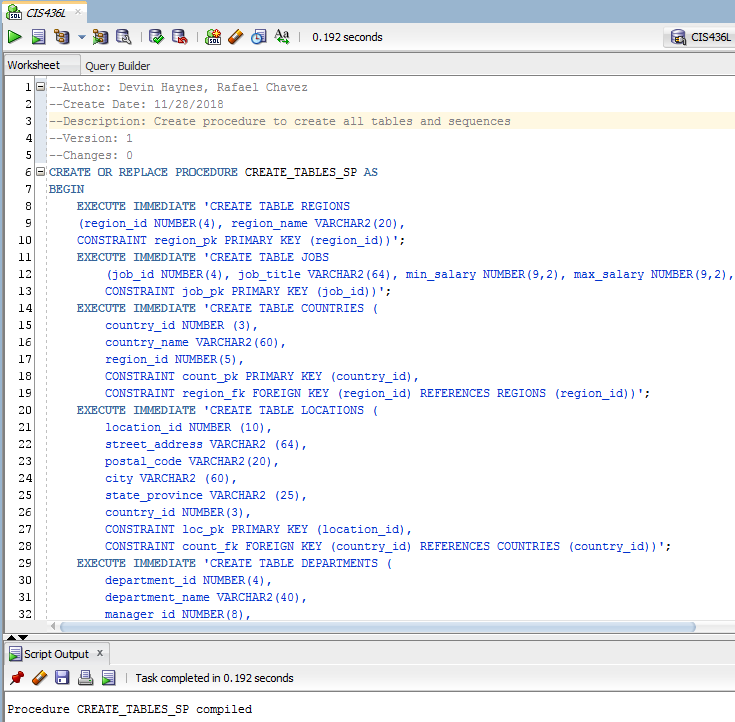
Execute DROP\_TABLES\_SP



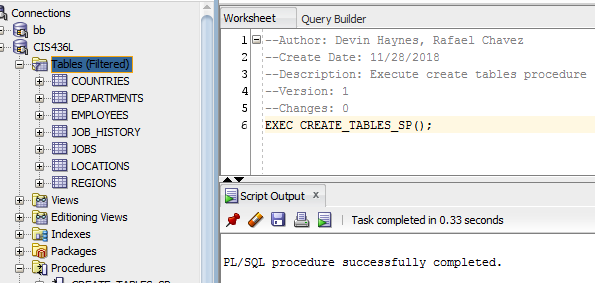
Verify Tables were dropped



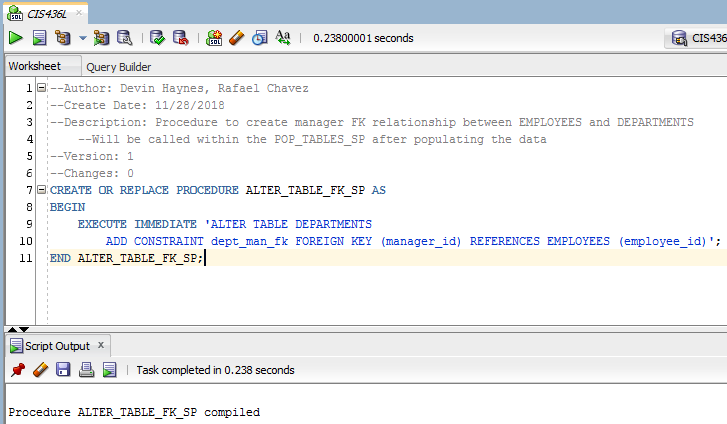
Create Procedure to create all tables and sequences



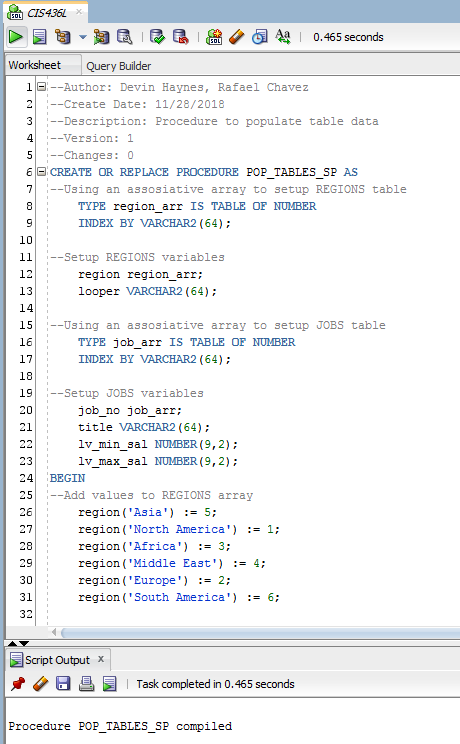
Execute CREATE\_TABLES\_SP & Verify proper execution

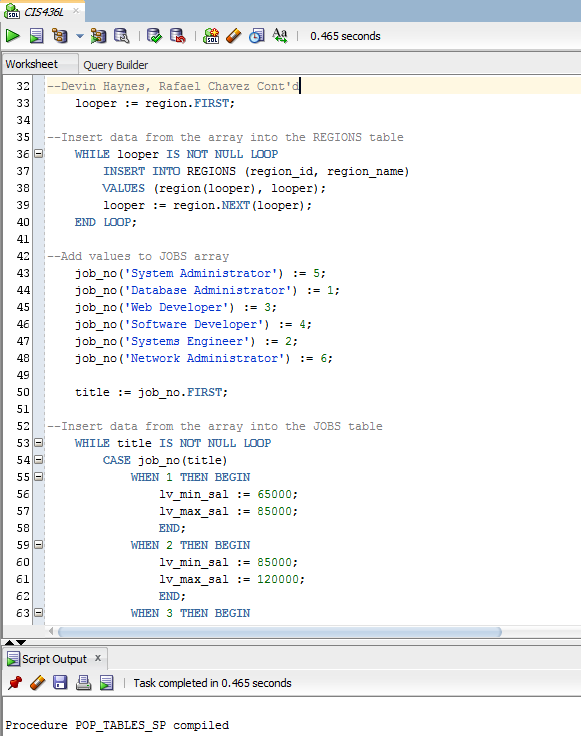


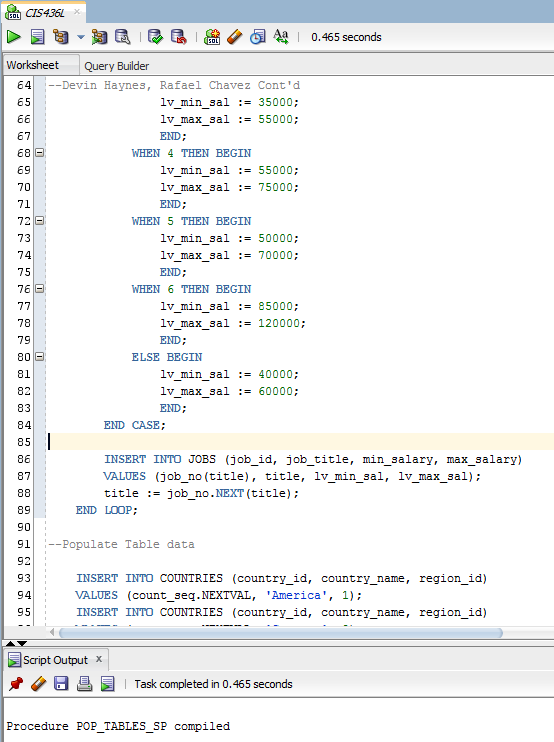
Create Procedure to manage FK constraint error between Departments and Employees table

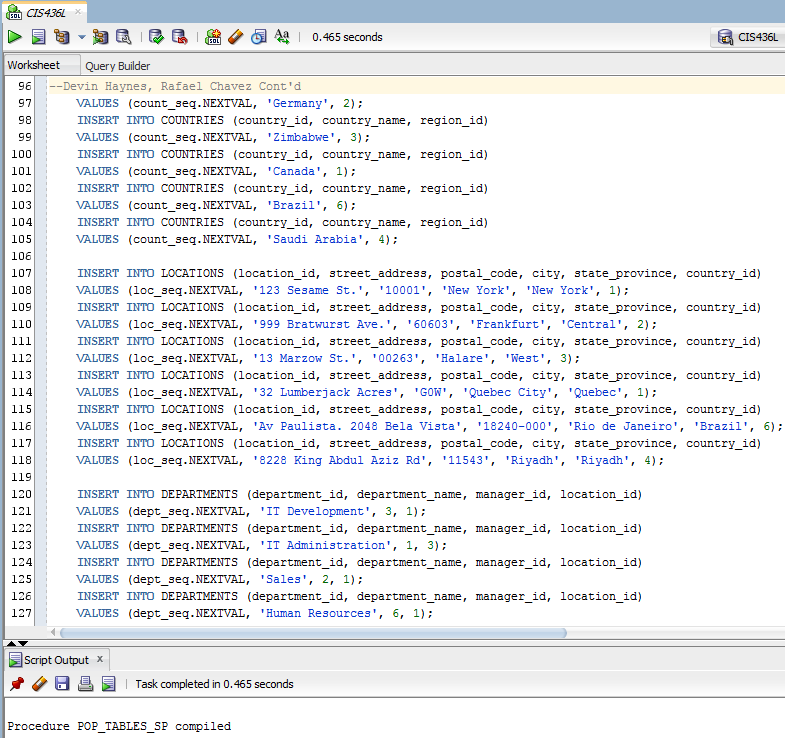


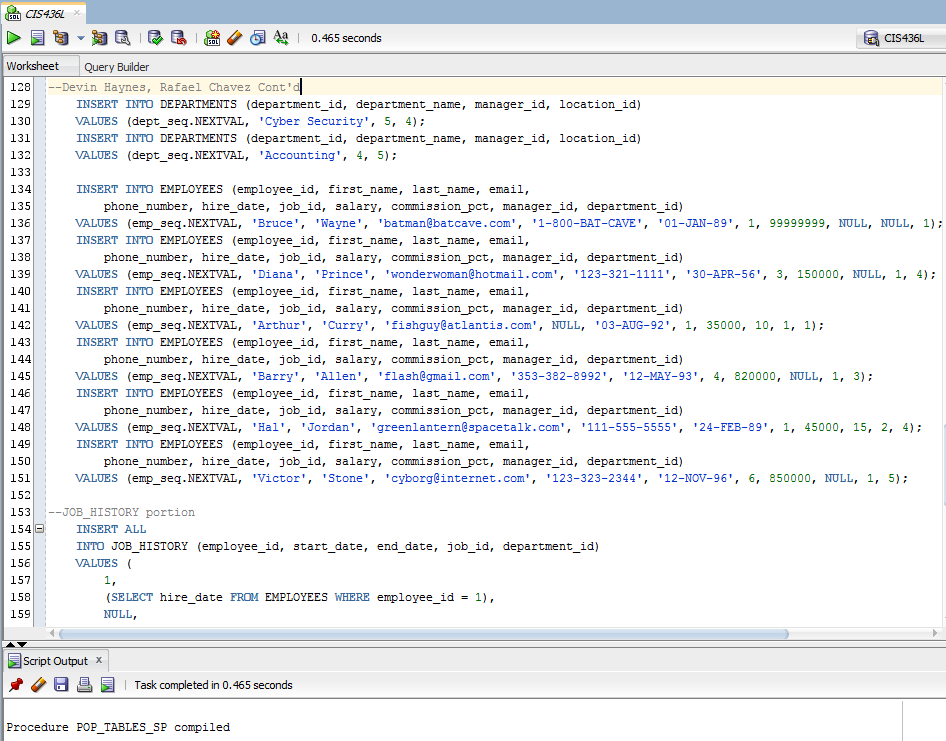
Create Procedure for populating all data [7 Screenshots]

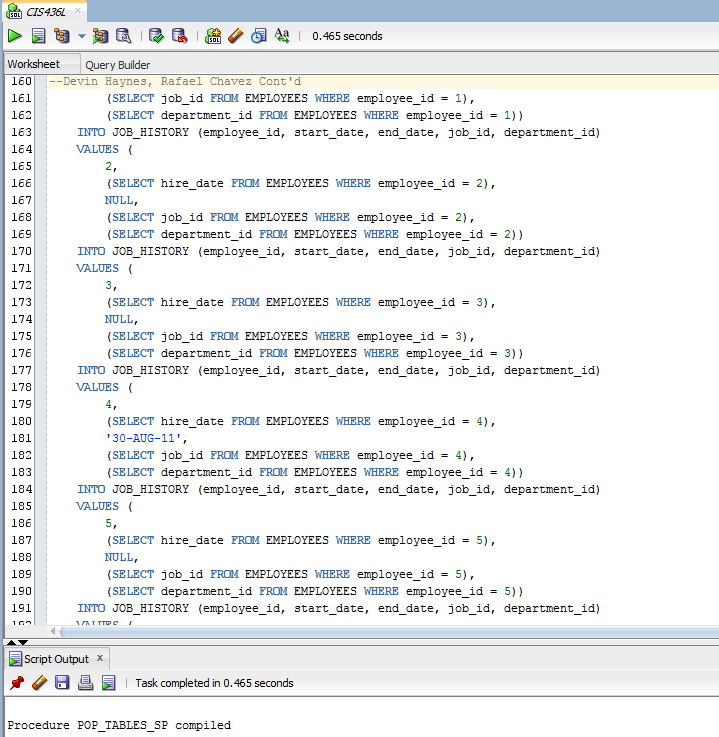


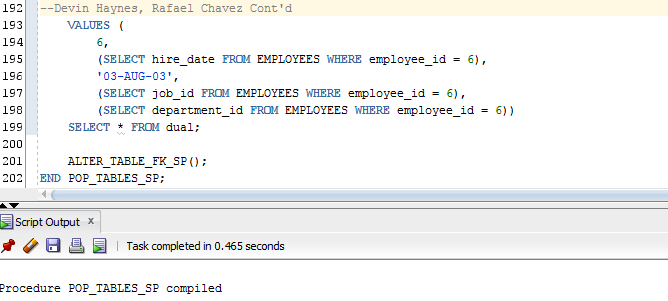




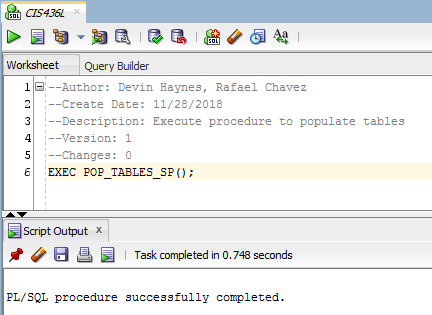




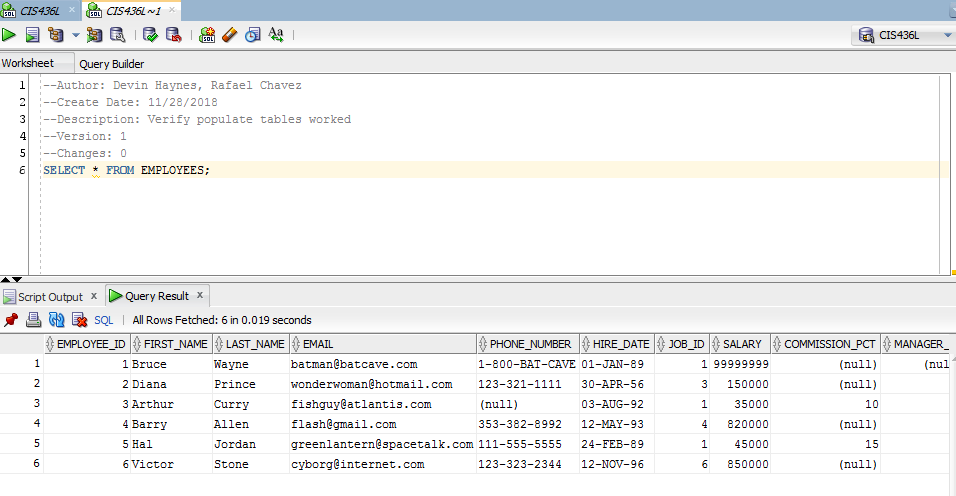




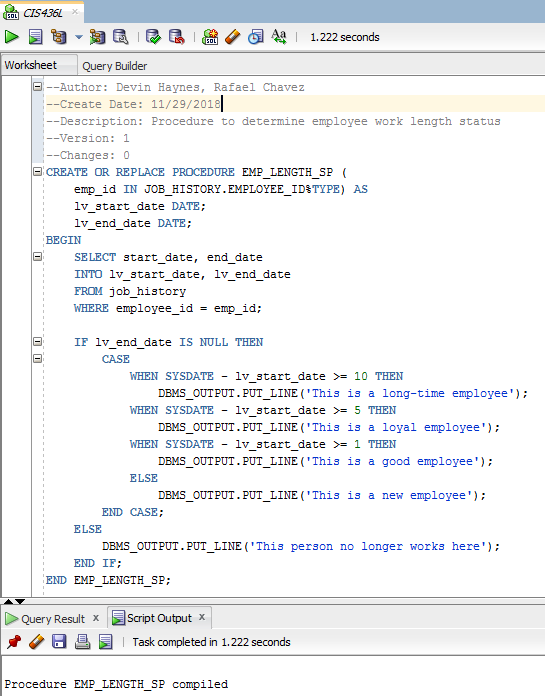
Execute POP\_TABLES\_SP



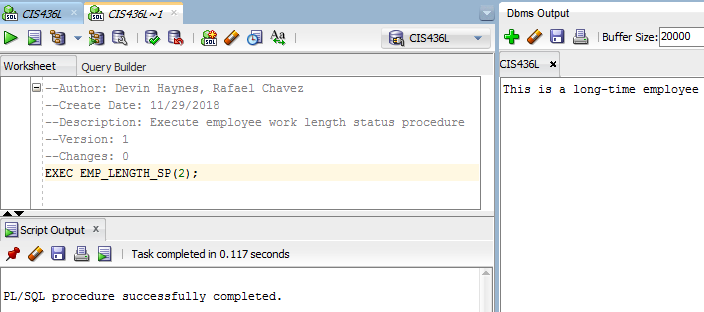
Verify tables were populated



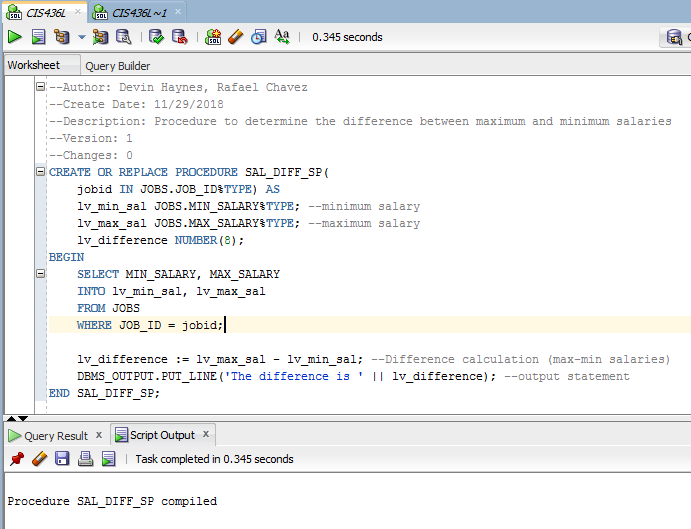
Create procedure to determine employee work length status



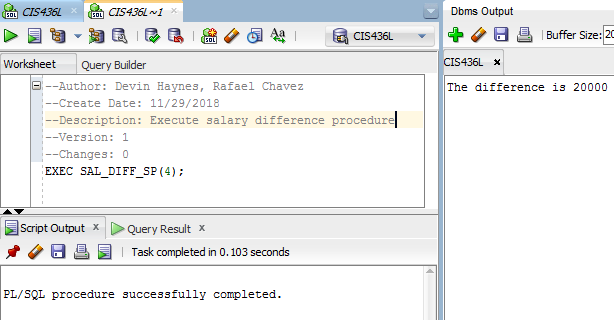
Execute EMP\_LENGTH\_SP



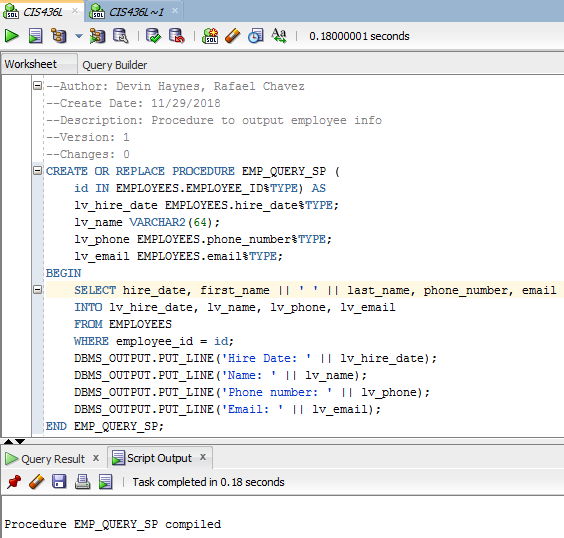
Create procedure to determine the difference between a job’s maximum and minimum salary



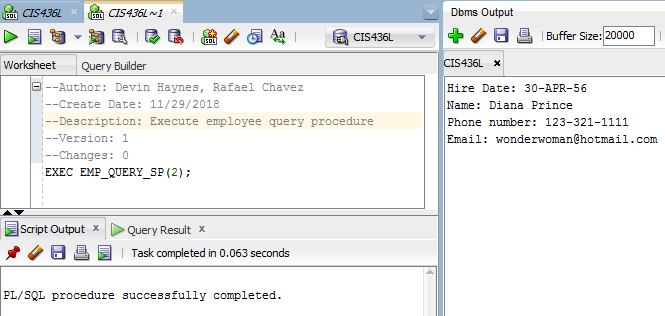
Execute SAL\_DIFF\_SP



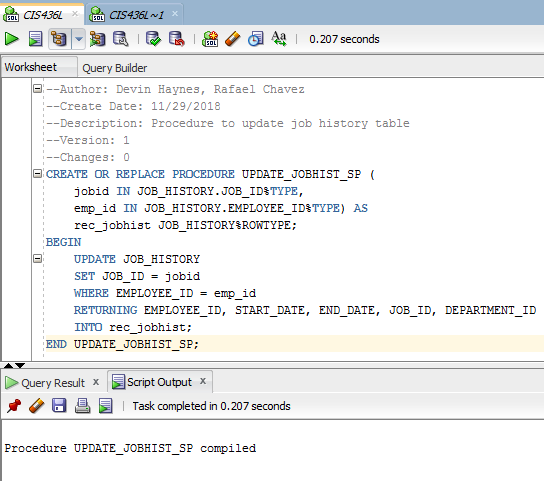
Create procedure to output employee info



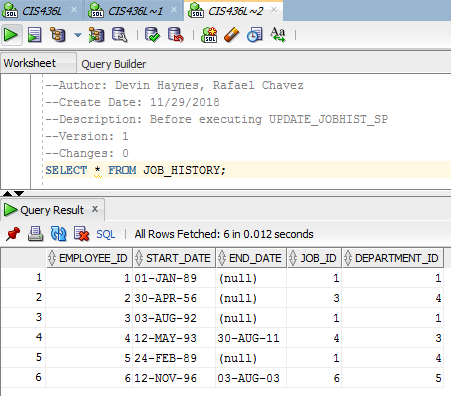
Execute EMP\_QUERY\_SP



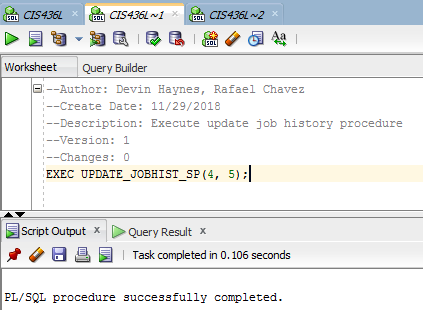
Create procedure to update job id of an employee in the job history table



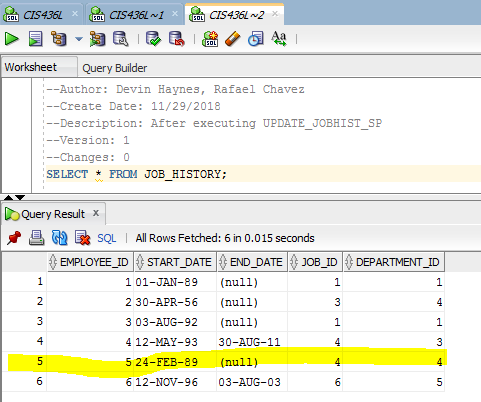
Verify table before executing UPDATE\_JOBHIST\_SP



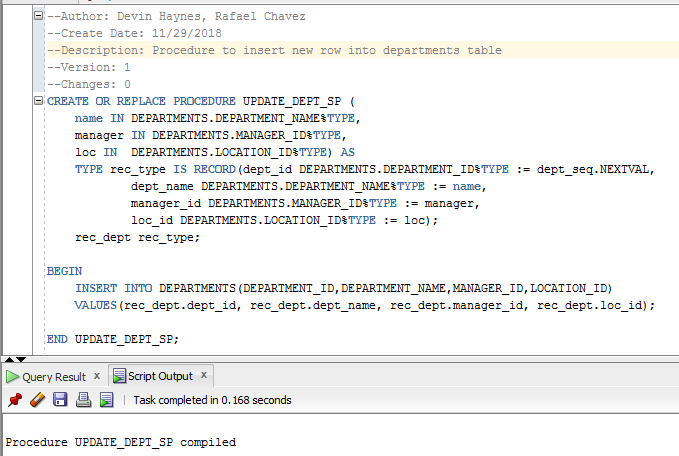
Execute UPDATE\_JOBHIST\_SP



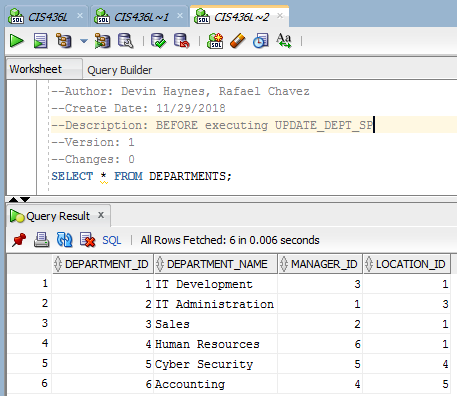
Verify table after executing UPDATE\_JOBHIST\_SP



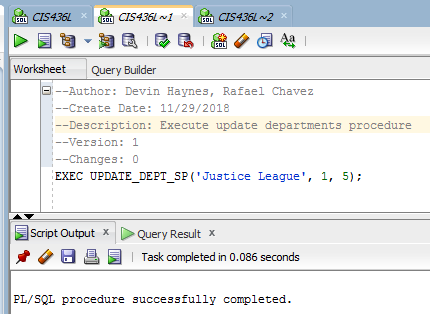
Create procedure to insert new row in Departments table



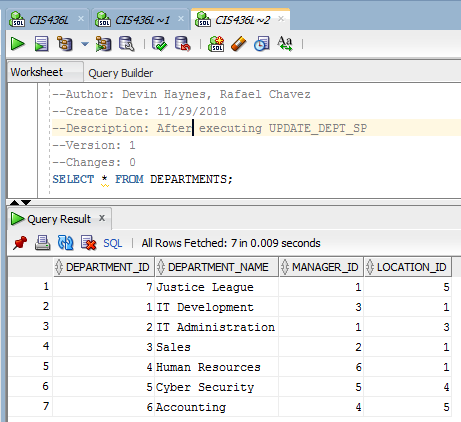
Before adding new row in Departments



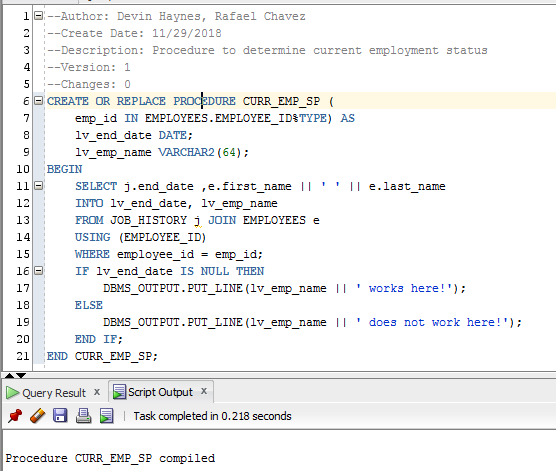
Execute UPDATE\_DEPT\_SP



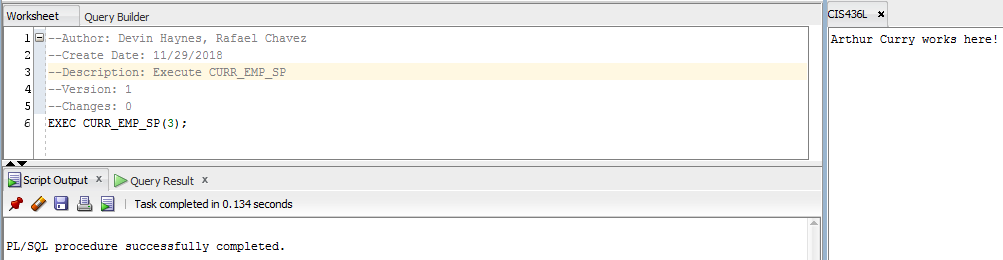
AFTER adding new row in Departments



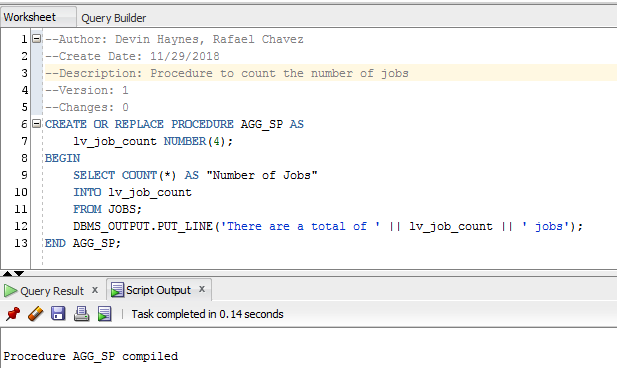
Create procedure to determine employment status (decision statement)



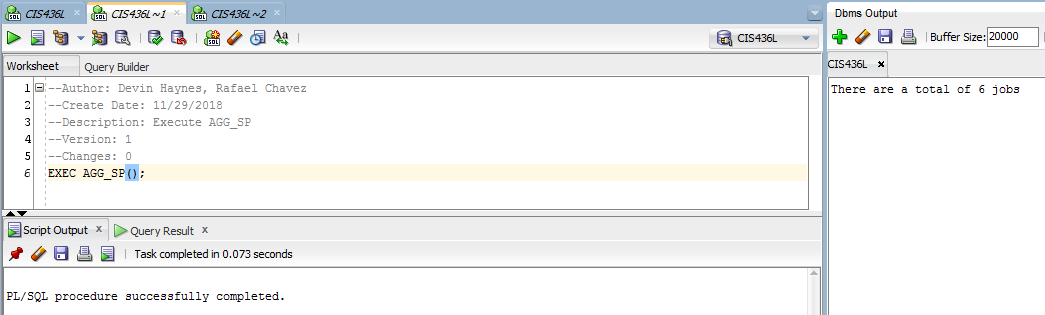
Execute CURR\_EMP\_SP



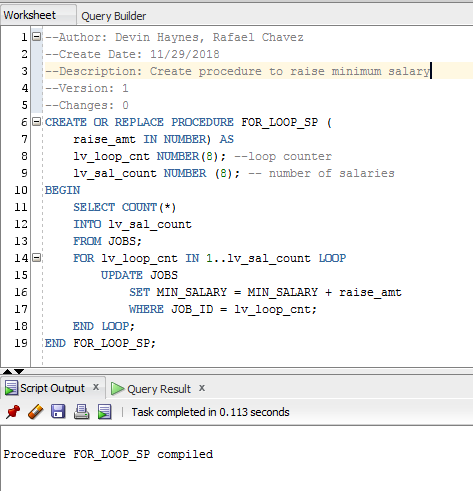
Create procedure to display the number of jobs (aggregate)



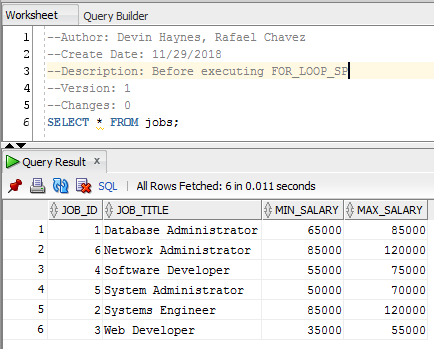
Execute AGG\_SP



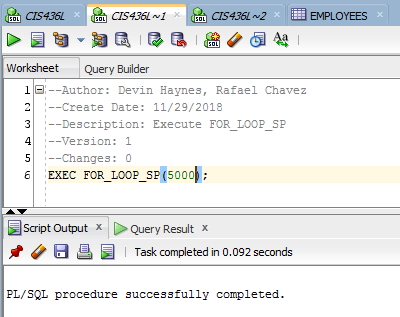
Create procedure to raise minimum salary by 5000 (for loop)



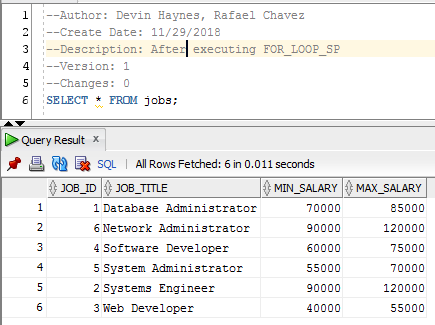
Before adding $5000 to minimum salary



Execute FOR\_LOOP\_SP

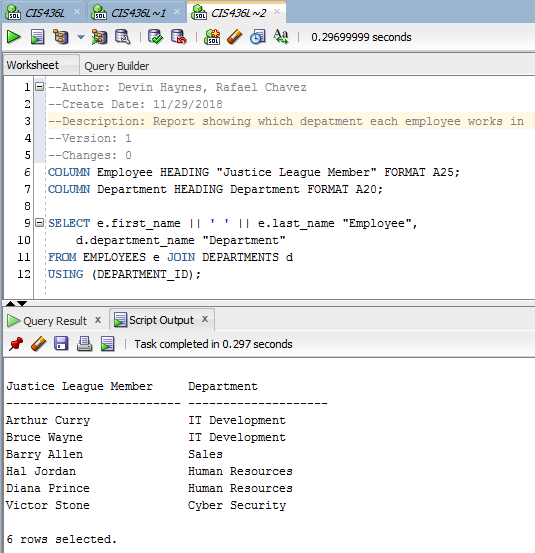


After adding $5000 to minimum salary



* Create two basic reports. One report that shows what department each employee works. Another report that provides basic employee profiles. Make sure to format the report so that it is readable.

Create report to show which department each employee works in



Create report to show employee profiles

