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**PMBA-8317-RHB APPLIED DATA MANAGEMENT FOR BUSINESS USERS**

**LAB 4 – DDL: CREATE AND INSERT**

Userid: **pmba\_adm**

Pwd:**ddl**

In this lab, you will be practicing DDL and DML on tables from your assignment3.

Questions 1&2 are treated together:

1. In this lab you will implement physical design from your **assignment3**. Create all tables from assignment3 (Create statements should have been defined. )

Before you execute in the database, pls. **prefix all tables with your id**. For example, my rider key is **mawwal.** Student table should be renamed as **mawwal\_student.** For consistency purpose, all table names should be created with either upper case or lower case. You can add/modify columns as need basis. You should also use Oracle supported data types for each columns.

1. Create primary key, foreign keys, additional index, check constraints, default values as needed.

CREATE TABLE JP\_STUDENT(

STU\_NUM NUMBER(3) NOT NULL,

STU\_LNAME VARCHAR2(10) NOT NULL,

STU\_FNAME VARCHAR2(10) NOT NULL,

MAJOR\_CODE CHAR(3),

ADVISOR\_NUM CHAR(4),

CONSTRAINT JP\_STUDENT\_PK PRIMARY KEY (STU\_NUM)

);

CREATE TABLE JPP\_DEPARTMENT(

DEPT\_CODE CHAR(3) NOT NULL,

DEPT\_NAME VARCHAR2(20),

DEPT\_PHONE NUMBER(11),

ADVISOR\_NUM CHAR (4),

CONSTRAINT JP\_DEPTPK PRIMARY KEY (DEPT\_CODE),

CONSTRAINT JP\_DEPTCK CHECK (DEPT\_PHONE>0)

);

CREATE TABLE JP\_COURSE(

COURSE\_NO VARCHAR2 (30) NOT NULL,

COURSE\_NAME VARCHAR2 (30),

DEPT\_CODE CHAR(3),

CONSTRAINT COURSE\_PK\_JP PRIMARY KEY (COURSE\_NO)

);

CREATE TABLE JP\_STUDENT\_ENROLLMENT(

COURSE\_NO VARCHAR2 (30) NOT NULL,

STU\_NUM NUMBER (10) NOT NULL,

DEPT\_CODE CHAR(3) NOT NULL,

STU\_GRADE NUMBER (3),

CONSTRAINT STUDENT\_ENROLLMENT\_PK\_JP PRIMARY KEY (COURSE\_NO),

CONSTRAINT STUDENT\_ENROLLMENT\_AK\_JP UNIQUE (STU\_NUM, DEPT\_CODE),

CONSTRAINT STUDENT\_ENROLLMENT\_CK\_JP CHECK (STU\_GRADE > 0)

);

CREATE TABLE JP\_MAJOR (

MAJOR\_CODE VARCHAR2(3) NOT NULL,

MAJOR\_NAME VARCHAR2(30),

DEPT\_CODE CHAR(3),

CONSTRAINT MAJOR\_PK\_JP PRIMARY KEY (MAJOR\_CODE)

);

CREATE TABLE JP\_ADVISOR (

ADVISOR\_NUM CHAR(4) NOT NULL,

ADVISOR\_LNAME VARCHAR2 (30) NOT NULL,

ADVISOR\_PHONE NUMBER (11),

CONSTRAINT ADVISOR\_PK\_JP PRIMARY KEY (ADVISOR\_NUM),

CONSTRAINT ADVISOR\_CK\_JP CHECK (ADVISOR\_PHONE>0)

);

Altering tables, adding foreign keys:

ALTER TABLE JP\_STUDENT

MODIFY STU\_LNAME VARCHAR2(12);

ALTER TABLE JP\_STUDENT

MODIFY STU\_FNAME VARCHAR2(12);

ALTER TABLE JP\_STUDENT

MODIFY MAJOR\_CODE VARCHAR2(3);

ALTER TABLE JP\_STUDENT

ADD CONSTRAINT STUDENT\_FK1\_JP

FOREIGN KEY (MAJOR\_CODE) REFERENCES JP\_MAJOR;

ALTER TABLE JP\_STUDENT

ADD CONSTRAINT STUDENT\_FK2\_JP

FOREIGN KEY (ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM);

ALTER TABLE JPP\_DEPARTMENT

ADD CONSTRAINT DEPT\_FK\_JP

FOREIGN KEY (ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM);

ALTER TABLE JP\_COURSE

ADD CONSTRAINT COURSE\_FK\_JP

FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT(DEPT\_CODE);

ALTER TABLE JP\_STUDENT\_ENROLLMENT

ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK1\_JP

FOREIGN KEY (COURSE\_NO) REFERENCES JP\_COURSE(COURSE\_NO);

ALTER TABLE JP\_STUDENT\_ENROLLMENT

ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK2\_JP

FOREIGN KEY (STU\_NUM) REFERENCES JP\_STUDENT;

ALTER TABLE JP\_STUDENT\_ENROLLMENT

ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK3\_JP

FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT;

ALTER TABLE JP\_MAJOR

ADD CONSTRAINT MAJOR\_FK\_JP

FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT;

1. Add 5 rows to each table (you can use data from student data file or make up the data). Start adding data in parent tables first.

* Lets Start with the Table ADVISOR

INSERT INTO JP\_ADVISOR (ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES (001, 'SHEN' , 6091014201);

INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES (002,'YETGIN', 6091014356);

INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES (003,'POTTER', 6091012134);

INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES (004, 'TSAKIRI', 6091014223);

INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES (005 ,'BOLKO', 6091015670);

* Now the Table DEPARTMENT

INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('MAT', 'MATH SCIENCE ', 6091011234, 001);

INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('CIS', 'COMPUTER INFORMATION', 6091011235, 002);

INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('PSY', 'PSYCHOLOGY', 6091011236, 003);

INSERT INTO JPP\_DEPARTMENT(DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('CSC', 'COMPUTER SCIENCE', 6091011237, 004);

INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('BUS', 'BUSINESS MANAGEMENT ', 6091011238, 005);

* Now the Table COURSE

INSERT INTO JP\_COURSE(COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('CIS223 ', 'DATABASE I ', 'CIS');

INSERT INTO JP\_COURSE(COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('CIS126 ', 'PROGRAMMING I ', 'CIS');

INSERT INTO JP\_COURSE(COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('BUS300 ', 'BUSINESS ETHICS AND LAW ', 'BUS');

INSERT INTO JP\_COURSE(COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('ENG110 ', 'ENGLISH I ', 'BUS');

INSERT INTO JP\_COURSE(COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('PSY105 ', 'INTRO TO PSYCHOLOGY ', 'PSY');

* Now the Table MAJOR

INSERT INTO JP\_MAJOR (MAJOR\_CODE, MAJOR\_NAME, DEPT\_CODE)

VALUES ('MKT', 'MARKETING ', 'BUS');

INSERT INTO JP\_MAJOR (MAJOR\_CODE, MAJOR\_NAME, DEPT\_CODE)

VALUES ('CIS', 'INFO SYSTEMS', 'CIS');

INSERT INTO JP\_MAJOR (MAJOR\_CODE, MAJOR\_NAME, DEPT\_CODE)

VALUES ('CYB', 'CYBERSECURITY ', 'CSC');

INSERT INTO JP\_MAJOR (MAJOR\_CODE, MAJOR\_NAME, DEPT\_CODE)

VALUES (‘MGT', 'MANAGEMENT', 'BUS');

INSERT INTO JP\_MAJOR (MAJOR\_CODE, MAJOR\_NAME, DEPT\_CODE)

VALUES ('FIN', 'FINANCE ', 'BUS');

* Now the Table STUDENT

INSERT INTO JP\_STUDENT(STU\_NUM, STU\_LNAME, STU\_FNAME, MAJOR\_CODE, ADVISOR\_NUM)

VALUES (101, 'CIDOLIT ', 'LENNY', 'MKT', 001);

INSERT INTO JP\_STUDENT(STU\_NUM, STU\_LNAME, STU\_FNAME, MAJOR\_CODE, ADVISOR\_NUM)

VALUES (102, 'DULCK ', 'REGIS', 'MKT', 002);

INSERT INTO JP\_STUDENT(STU\_NUM, STU\_LNAME, STU\_FNAME, MAJOR\_CODE, ADVISOR\_NUM)

VALUES (103, 'ALMASUDE ', 'ADEL ', 'CYB', 003);

INSERT INTO JP\_STUDENT(STU\_NUM, STU\_LNAME, STU\_FNAME, MAJOR\_CODE, ADVISOR\_NUM)

VALUES (104, 'ALIBOU ', 'ZAKI ', 'FIN', 003);

INSERT INTO JP\_STUDENT(STU\_NUM, STU\_LNAME, STU\_FNAME, MAJOR\_CODE, ADVISOR\_NUM)

VALUES (105, 'LIKO ', 'ROMAIN ', 'CIS', 004);

* Now the Table STUDENT\_ENROLLMENT

INSERT INTO JP\_STUDENT\_ENROLLMENT

(COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE)

VALUES ('CIS223 ', 101, 'MAT', 95);

INSERT INTO JP\_STUDENT\_ENROLLMENT

(COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE)

VALUES ('CIS126 ', 101, 'CIS', 67);

INSERT INTO JP\_STUDENT\_ENROLLMENT

(COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE)

VALUES ('CIS223 ', 102, 'MAT', 77);

INSERT INTO JP\_STUDENT\_ENROLLMENT

(COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE)

VALUES ('ENG110 ', 103, 'HAT', 91);

INSERT INTO JP\_STUDENT\_ENROLLMENT

(COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE)

VALUES ('PSY105 ', 104, 'BUS', 96);

1. Run a query to check if each table has 5 rows

SELECT COUNT(\*) AS NumberofRowsinSTUDENT

FROM JP\_STUDENT;

SELECT COUNT(\*) AS NumberofRowsinDEPARTMENT

FROM JPP\_DEPARTMENT;

SELECT COUNT(\*) AS NumberofRowsinCOURSE

FROM JP\_COURSE;

SELECT COUNT(COURSE\_NO) AS NumberofRowsinENROLLMENT

FROM JP\_STUDENT\_ENROLLMENT;

SELECT COUNT(MAJOR\_CODE) AS NumberofRowsinMAJOR

FROM JP\_MAJOR;

SELECT COUNT(ADVISOR\_NUM) AS NumberofRowsinMAJOR

FROM JP\_ADVISOR;

1. Add a column ‘phone\_no’ to student table and make datatype as number(20)

ALTER TABLE JP\_STUDENT

ADD PHONE\_NO NUMBER(20);

1. Choose any student to update phone to 6095674321

UPDATE JP\_STUDENT

SET PHONE\_NO = 6095674321

WHERE STU\_NUM = 102;

1. Add course a course course\_no= PMBA8317 , course\_name= Applied data management, dept\_code=CIS to COURSE table (Note: you have to add CIS to DEPARTMENT tabltable first

INSERT INTO JP\_ADVISOR (ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE)

VALUES ( 006, 'HAMLET ', 6091011240);

INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM)

VALUES ('BDA', 'DATA MANAGEMENT', 6091011240, 006);

INSERT INTO JP\_COURSE (COURSE\_NO, COURSE\_NAME, DEPT\_CODE)

VALUES ('PMBA8317', 'APPLIED DATA MANAGEMENT', 'BDA');

1. Choose any student and last name to Smith and first name to Clara

UPDATE JP\_STUDENT

SET STU\_LNAME = 'SMITH', STU\_FNAME = 'CLARA'

WHERE STU\_NUM= 102;

1. Delete student whose last name is Smith and first name is Clara

DELETE FROM JP\_STUDENT

WHERE STU\_LNAME='SMITH'

AND STU\_FNAME = 'CLARA'

1. Generate a report to display students’ las names and their advisor’s last name and sort the output by advisor’s last name name

SELECT S.STU\_LNAME, A.ADVISOR\_LNAME

FROM JP\_STUDENT S, JP\_ADVISOR A

WHERE S.ADVISOR\_NUM=A.ADVISOR\_NUM

ORDER BY ADVISOR\_LNAME;

1. Generate a report to display students’ last names, department name and their major names and sort the output by major name

SELECT STU\_LNAME, DEPT\_NAME, MAJOR\_NAME

FROM JP\_STUDENT JOIN JP\_MAJOR

ON JP\_MAJOR.MAJOR\_CODE= JP\_STUDENT.MAJOR\_CODE

JOIN JPP\_DEPARTMENT

ON JPP\_DEPARTMENT.DEPT\_CODE=JP\_MAJOR.DEPT\_CODE

ORDER BY MAJOR\_NAME;

1. Generate a report to display number of students by course name

SELECT COURSE\_NAME, COUNT(STU\_NUM)

FROM JP\_STUDENT\_ENROLLMENT JOIN JP\_COURSE

ON JP\_STUDENT\_ENROLLMENT.COURSE\_NO= JP\_COURSE.COURSE\_NO

GROUP BY COURSE\_NAME

ORDER BY COURSE\_NAME;

1. Generate a report to display students’ first name, last name, course name and their grades. Concatenate first name and last name and display output as “Student Name”, course name as “Course Name”

SELECT STU\_FNAME||' '||STU\_LNAME AS "STUDENTNAME", COURSE\_NAME AS "COURSENAME", STU\_GRADE

FROM JP\_STUDENT JOIN JP\_STUDENT\_ENROLLMENT

ON JP\_STUDENT.STU\_NUM=JP\_STUDENT\_ENROLLMENT.STU\_NUM

JOIN JP\_COURSE

ON JP\_COURSE.COURSE\_NO=JP\_STUDENT\_ENROLLMENT.COURSE\_NO;

SQL HISTORY:

| SELECT STU\_FNAME||' '||STU\_LNAME AS "STUDENTNAME", COURSE\_NAME AS "COURSENAME", STU\_GRADE FROM JP\_STUDENT JOIN JP\_STUDENT\_ENROLLMENT ON JP\_STUDENT.STU\_NUM=JP\_STUDENT\_ENROLLMENT.STU\_NUM JOIN JP\_COURSE ON JP\_COURSE.COURSE\_NO=JP\_STUDENT\_ENROLLMENT.COURSE\_NO; | Petersonduj\_admin | 1669696920825 | SQL | 1 | 0.474 |
| --- | --- | --- | --- | --- | --- |
| SELECT STU\_LNAME, DEPT\_NAME, MAJOR\_NAME FROM JP\_STUDENT JOIN JP\_MAJOR ON JP\_MAJOR.MAJOR\_CODE= JP\_STUDENT.MAJOR\_CODE JOIN JPP\_DEPARTMENT ON JPP\_DEPARTMENT.DEPT\_CODE=JP\_MAJOR.DEPT\_CODE ORDER BY MAJOR\_NAME; | Petersonduj\_admin | 1669696907616 | SQL | 2 | 0.229 |
| SELECT S.STU\_LNAME, A.ADVISOR\_LNAME FROM JP\_STUDENT S, JP\_ADVISOR A WHERE S.ADVISOR\_NUM=A.ADVISOR\_NUM ORDER BY ADVISOR\_LNAME; | Petersonduj\_admin | 1669696858867 | SQL | 1 | 0.329 |
| DELETE FROM JP\_STUDENT WHERE STU\_LNAME='SMITH' AND STU\_FNAME = 'CLARA' | Petersonduj\_admin | 1669696841135 | SQL | 1 | 0.014 |
| UPDATE JP\_STUDENT SET STU\_LNAME = 'SMITH', STU\_FNAME = 'CLARA' WHERE STU\_NUM= 102; | Petersonduj\_admin | 1669696831788 | SQL | 1 | 0.005 |
| INSERT INTO JP\_COURSE (COURSE\_NO, COURSE\_NAME, DEPT\_CODE) VALUES ('PMBA8317', 'APPLIED DATA MANAGEMENT', 'BDA'); | Petersonduj\_admin | 1669696813246 | SQL | 1 | 0.051 |
| INSERT INTO JPP\_DEPARTMENT (DEPT\_CODE, DEPT\_NAME, DEPT\_PHONE, ADVISOR\_NUM) VALUES ('BDA', 'DATA MANAGEMENT', 6091011240, 006); | Petersonduj\_admin | 1669696805105 | SQL | 1 | 0.008 |
| INSERT INTO JP\_ADVISOR (ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES ( 006, 'HAMLET ', 6091011240); | Petersonduj\_admin | 1669696792990 | SQL | 1 | 0.004 |
| UPDATE JP\_STUDENT SET PHONE\_NO = 6095674321 WHERE STU\_NUM = 102; | Petersonduj\_admin | 1669696767296 | SQL | 1 | 0.004 |
| UPDATE JP\_STUDENT SET PHONE\_NO = 6095674321 WHERE STU\_NUM = 001; | Petersonduj\_admin | 1669696712449 | SQL | 1 | 0.073 |
| ALTER TABLE JP\_STUDENT ADD PHONE\_NO NUMBER(20); | Petersonduj\_admin | 1669696705546 | SQL | 1 | 0.076 |
| SELECT COUNT(\*) AS NumberofRowsinDEPARTMENT FROM JPP\_DEPARTMENT; | Petersonduj\_admin | 1669696697590 | SQL | 1 | 0.008 |
| SELECT COUNT(\*) AS NumberofRowsinCOURSE FROM JP\_COURSE; | Petersonduj\_admin | 1669696691580 | SQL | 1 | 0.004 |
| SELECT COUNT(COURSE\_NO) AS NumberofRowsinENROLLMENT FROM JP\_STUDENT\_ENROLLMENT; | Petersonduj\_admin | 1669696685717 | SQL | 1 | 0.016 |
| SELECT COUNT(MAJOR\_CODE) AS NumberofRowsinMAJOR FROM JP\_MAJOR; | Petersonduj\_admin | 1669696679336 | SQL | 1 | 0.005 |
| SELECT COUNT(ADVISOR\_NUM) AS NumberofRowsinMAJOR FROM JP\_ADVISOR; | Petersonduj\_admin | 1669696673220 | SQL | 1 | 0.019 |
| SELECT COUNT(\*) AS NumberofRowsinSTUDENT FROM JP\_STUDENT; | Petersonduj\_admin | 1669696612823 | SQL | 1 | 0.078 |
| INSERT INTO JP\_STUDENT\_ENROLLMENT (COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE) VALUES ('PSY105 ', 104, 'BUS', 96); | Petersonduj\_admin | 1669696490632 | SQL | 1 | 0.005 |
| INSERT INTO JP\_STUDENT\_ENROLLMENT (COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE) VALUES ('CIS126 ', 101, 'CIS', 67); | Petersonduj\_admin | 1669696398303 | SQL | 1 | 0.009 |
| INSERT INTO JP\_STUDENT\_ENROLLMENT (COURSE\_NO, STU\_NUM, DEPT\_CODE, STU\_GRADE) VALUES ('CIS223 ', 101, 'MAT', 95); | Petersonduj\_admin | 1669696377091 | SQL | 1 | 0.031 |

| ALTER TABLE JP\_STUDENT MODIFY STU\_LNAME VARCHAR2(12); ALTER TABLE JP\_STUDENT MODIFY STU\_FNAME VARCHAR2(12); ALTER TABLE JP\_STUDENT MODIFY MAJOR\_CODE VARCHAR2(3); ALTER TABLE JP\_STUDENT ADD CONSTRAINT STUDENT\_FK1\_JP FOREIGN KEY (MAJOR\_CODE) REFERENCES JP\_MAJOR; ALTER TABLE JP\_STUDENT ADD CONSTRAINT STUDENT\_FK2\_JP FOREIGN KEY (ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM); ALTER TABLE JPP\_DEPARTMENT ADD CONSTRAINT DEPT\_FK\_JP FOREIGN KEY (ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM); ALTER TABLE JP\_COURSE ADD CONSTRAINT COURSE\_FK\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT(DEPT\_CODE); ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK1\_JP FOREIGN KEY (COURSE\_NO) REFERENCES JP\_COURSE(COURSE\_NO); ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK2\_JP FOREIGN KEY (STU\_NUM) REFERENCES JP\_STUDENT; ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK3\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT; ALTER TABLE JP\_MAJOR ADD CONSTRAINT MAJOR\_FK\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT; | Petersonduj\_admin | 1669694603886 | Script | 1 | 1.071 |
| --- | --- | --- | --- | --- | --- |
| CREATE TABLE JP\_ADVISOR ( ADVISOR\_NUM CHAR(4) NOT NULL, ADVISOR\_LNAME VARCHAR2 (30) NOT NULL, ADVISOR\_PHONE NUMBER (11), CONSTRAINT ADVISOR\_PK\_JP PRIMARY KEY (ADVISOR\_NUM), CONSTRAINT ADVISOR\_CK\_JP CHECK (ADVISOR\_PHONE>0) ); | Petersonduj\_admin | 1669694592245 | SQL | 1 | 0.12 |
| CREATE TABLE JP\_MAJOR ( MAJOR\_CODE VARCHAR2(3) NOT NULL, MAJOR\_NAME VARCHAR2(30), DEPT\_CODE CHAR(3), CONSTRAINT MAJOR\_PK\_JP PRIMARY KEY (MAJOR\_CODE) ); | Petersonduj\_admin | 1669694584572 | SQL | 2 | 0.081 |
| CREATE TABLE JP\_STUDENT\_ENROLLMENT( COURSE\_NO VARCHAR2 (30) NOT NULL, STU\_NUM NUMBER (10) NOT NULL, DEPT\_CODE CHAR(3) NOT NULL, STU\_GRADE NUMBER (3), CONSTRAINT STUDENT\_ENROLLMENT\_PK\_JP PRIMARY KEY (COURSE\_NO), CONSTRAINT STUDENT\_ENROLLMENT\_AK\_JP UNIQUE (STU\_NUM, DEPT\_CODE), CONSTRAINT STUDENT\_ENROLLMENT\_CK\_JP CHECK (STU\_GRADE > 0) ); | Petersonduj\_admin | 1669694577525 | SQL | 3 | 0.164 |
| CREATE TABLE JP\_COURSE( COURSE\_NO VARCHAR2 (30) NOT NULL, COURSE\_NAME VARCHAR2 (30), DEPT\_CODE CHAR(3), CONSTRAINT COURSE\_PK\_JP PRIMARY KEY (COURSE\_NO) ); | Petersonduj\_admin | 1669694569356 | SQL | 3 | 0.065 |
| CREATE TABLE JPP\_DEPARTMENT( DEPT\_CODE CHAR(3) NOT NULL, DEPT\_NAME VARCHAR2(20), DEPT\_PHONE NUMBER(11), ADVISOR\_NUM CHAR (4), CONSTRAINT JP\_DEPTPK PRIMARY KEY (DEPT\_CODE), CONSTRAINT JP\_DEPTCK CHECK (DEPT\_PHONE>0) ); | Petersonduj\_admin | 1669694557924 | SQL | 1 | 0.278 |
| CREATE TABLE JP\_STUDENT( STU\_NUM NUMBER(3) NOT NULL, STU\_LNAME VARCHAR2(10) NOT NULL, STU\_FNAME VARCHAR2(10) NOT NULL, MAJOR\_CODE CHAR(3), ADVISOR\_NUM CHAR(4), CONSTRAINT JP\_STUDENT\_PK PRIMARY KEY (STU\_NUM) ); | Petersonduj\_admin | 1669694549733 | SQL | 1 | 0.215 |
| drop table JP\_STUDENT\_ENROLLMENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694501446 | SQL | 1 | 0.122 |
| drop table JP\_MAJOR CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694481434 | SQL | 1 | 0.178 |
| drop table JP\_COURSE CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694473036 | SQL | 1 | 0.128 |
| drop table JPP\_DEPARTMENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694458186 | SQL | 1 | 0.325 |
| drop table JP\_STUDENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694445905 | SQL | 1 | 0.115 |
| drop table JP\_ADVISOR CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669694362309 | SQL | 1 | 0.047 |
| ALTER TABLE JP\_MAJOR ADD CONSTRAINT MAJOR\_FK\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT; | Petersonduj\_admin | 1669693947758 | SQL | 1 | 0.017 |
| ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK3\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT; | Petersonduj\_admin | 1669693941410 | SQL | 1 | 0.08 |
| ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK2\_JP FOREIGN KEY (STU\_NUM) REFERENCES JP\_STUDENT; | Petersonduj\_admin | 1669693932870 | SQL | 3 | 0.316 |
| ALTER TABLE JP\_COURSE ADD CONSTRAINT COURSE\_FK\_JP FOREIGN KEY (DEPT\_CODE) REFERENCES JPP\_DEPARTMENT(DEPT\_CODE); | Petersonduj\_admin | 1669693925395 | SQL | 1 | 0.136 |
| ALTER TABLE JPP\_DEPARTMENT ADD CONSTRAINT DEPT\_FK\_JP FOREIGN KEY (ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM); | Petersonduj\_admin | 1669693917371 | SQL | 1 | 0.124 |
| ALTER TABLE JP\_STUDENT ADD CONSTRAINT STUDENT\_FK1\_JP FOREIGN KEY (MAJOR\_CODE) REFERENCES JP\_MAJOR; | Petersonduj\_admin | 1669693898500 | SQL | 2 | 0.114 |
| ALTER TABLE JP\_STUDENT MODIFY MAJOR\_CODE VARCHAR2(3); | Petersonduj\_admin | 1669693891050 | SQL | 2 | 0.073 |
| ALTER TABLE JP\_STUDENT MODIFY STU\_FNAME VARCHAR2(12); | Petersonduj\_admin | 1669693884126 | SQL | 2 | 0.062 |
| ALTER TABLE JP\_STUDENT MODIFY STU\_LNAME VARCHAR2(12); | Petersonduj\_admin | 1669693877342 | SQL | 2 | 0.128 |
| CREATE TABLE JPP\_DEPARTMENT( DEPT\_CODE CHAR(3) NOT NULL, DEPT\_NAME VARCHAR2 (20), DEPT\_PHONE NUMBER (11), ADVISOR\_NUM VARCHAR2 (4), CONSTRAINT JP\_DEPTPK PRIMARY KEY (DEPT\_CODE), CONSTRAINT JP\_DEPTCK CHECK (DEPT\_PHONE>0) ); | Petersonduj\_admin | 1669693798416 | SQL | 2 | 0.119 |
| DROP TABLE JPP\_DEPARTMENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669693785202 | SQL | 1 | 0.047 |
| DROP TABLE JP\_DEPARTMENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669693739537 | SQL | 1 | 0.219 |
| DROP TABLE JP\_COURSE CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669693695171 | SQL | 1 | 0.029 |
| DROP TABLE JP\_STUDENT\_ENROLLMENT CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669693663818 | SQL | 1 | 0.112 |
| DROP TABLE JP\_MAJOR CASCADE CONSTRAINTS; | Petersonduj\_admin | 1669693630381 | SQL | 1 | 0.271 |
| ALTER TABLE JP\_STUDENT\_ENROLLMENT ADD CONSTRAINT STUDENT\_ENROLLMENT\_FK1\_JP FOREIGN KEY (COURSE\_NO) REFERENCES JP\_COURSE(COURSE\_NO); | Petersonduj\_admin | 1669693520377 | SQL | 2 | 0.025 |
| DROP TABLE JP\_STUDENT\_ENROLLMENT | Petersonduj\_admin | 1669693480252 | SQL | 1 | 0.122 |
| DROP TABLE JP\_COURSE; | Petersonduj\_admin | 1669693328063 | SQL | 1 | 0.121 |
| ALTER TABLE JP\_STUDENT ADD CONSTRAINT STUDENT\_FK2\_JP FOREIGN KEY(ADVISOR\_NUM) REFERENCES JP\_ADVISOR(ADVISOR\_NUM); | Petersonduj\_admin | 1669693221803 | SQL | 1 | 0.217 |
| CREATE TABLE JP\_ADVISOR ( ADVISOR\_NUM VARCHAR2(4) NOT NULL, ADVISOR\_LNAME VARCHAR2 (30) NOT NULL, ADVISOR\_PHONE NUMBER (11), CONSTRAINT ADVISOR\_PK\_JP PRIMARY KEY (ADVISOR\_NUM), CONSTRAINT ADVISOR\_CK\_JP CHECK (ADVISOR\_PHONE>0) ); | Petersonduj\_admin | 1669693009523 | SQL | 1 | 0.118 |
| CREATE TABLE JP\_MAJOR ( MAJOR\_CODE VARCHAR2(3) NOT NULL, MAJOR\_NAME VARCHAR2(30), DEPT\_CODE VARCHAR2(10), CONSTRAINT MAJOR\_PK\_JP PRIMARY KEY (MAJOR\_CODE) ); | Petersonduj\_admin | 1669693000820 | SQL | 1 | 0.276 |
| CREATE TABLE JP\_STUDENT\_ENROLLMENT( COURSE\_NO VARCHAR2 (30) NOT NULL, STU\_NUM NUMBER (10) NOT NULL, DEPT\_CODE VARCHAR2 (10) NOT NULL, STU\_GRADE NUMBER (3), CONSTRAINT STUDENT\_ENROLLMENT\_PK\_JP PRIMARY KEY (COURSE\_NO), CONSTRAINT STUDENT\_ENROLLMENT\_AK\_JP UNIQUE (STU\_NUM, DEPT\_CODE), CONSTRAINT STUDENT\_ENROLLMENT\_CK\_JP CHECK (STU\_GRADE > 0) ); | Petersonduj\_admin | 1669692933507 | SQL | 1 | 0.079 |
| CREATE TABLE JP\_COURSE( COURSE\_NO VARCHAR2 (30) NOT NULL, COURSE\_NAME VARCHAR2 (30), DEPT\_CODE VARCHAR2 (10), CONSTRAINT COURSE\_PK\_JP PRIMARY KEY (COURSE\_NO) ); | Petersonduj\_admin | 1669692904961 | SQL | 1 | 0.031 |
| CREATE TABLE JP\_STUDENT( STU\_NUM NUMBER(3) NOT NULL, STU\_LNAME VARCHAR2(10) NOT NULL, STU\_FNAME VARCHAR2(10) NOT NULL, MAJOR\_CODE CHAR(3), ADVISOR\_NUM VARCHAR2(4), CONSTRAINT JP\_STUDENT\_PK PRIMARY KEY (STU\_NUM) ); | Petersonduj\_admin | 1669692754493 | SQL | 1 | 0.03 |
| INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES (005 ,'BOLKO', 6091015670); | Petersonduj\_admin | 1669695720011 | SQL | 1 | 0.005 |
| INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES (003,'POTTER', 6091012134); | Petersonduj\_admin | 1669695708026 | SQL | 1 | 0.372 |
| INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES (004, 'TSAKIRI', 6091014223); | Petersonduj\_admin | 1669695701157 | SQL | 1 | 0.006 |
| INSERT INTO JP\_ADVISOR(ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES (002,'YETGIN', 6091014356); | Petersonduj\_admin | 1669695675780 | SQL | 1 | 0.005 |
| INSERT INTO JP\_ADVISOR (ADVISOR\_NUM, ADVISOR\_LNAME, ADVISOR\_PHONE) VALUES (001, 'SHEN' , 6091014201); | Petersonduj\_admin | 1669695625352 | SQL | 1 | 0.012 |
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