*Gabriel Nestor* ITI-2180 Foundations of Data and Database Management

**Problem A**

CODE:

CREATE TABLE store\_reps (

rep\_id NUMBER(5) PRIMARY KEY,

last VARCHAR2(15),

first VARCHAR2(10),

comm CHAR(1) DEFAULT 'Y'

);

DESC STORE\_REPS;

OUTPUT:

Table STORE\_REPS created.

Name Null? Type

------ -------- ------------

REP\_ID NOT NULL NUMBER(5)

LAST VARCHAR2(15)

FIRST VARCHAR2(10)

COMM CHAR(1)

**Problem B**

CODE:

ALTER TABLE store\_reps MODIFY (

last NOT NULL,

first NOT NULL

);

DESC STORE\_REPS;

OUTPUT:

Table STORE\_REPS altered.

Name Null? Type

------ -------- ------------

REP\_ID NOT NULL NUMBER(5)

LAST NOT NULL VARCHAR2(15)

FIRST NOT NULL VARCHAR2(10)

COMM CHAR(1)

**Problem C**

CODE:

ALTER TABLE store\_reps

ADD CONSTRAINT yn\_ck CHECK ( comm IN ( 'Y', 'N' ) );

DESC STORE\_REPS;

OUTPUT:

Table STORE\_REPS altered.

Name Null? Type

------ -------- ------------

REP\_ID NOT NULL NUMBER(5)

LAST NOT NULL VARCHAR2(15)

FIRST NOT NULL VARCHAR2(10)

COMM CHAR(1)

**Problem D**

CODE:

ALTER TABLE store\_reps ADD (

base\_salary NUMBER(7, 2) CHECK ( base\_salary < 0 )

);

DESC STORE\_REPS;

OUTPUT:

Table STORE\_REPS altered.

Name Null? Type

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REP\_ID NOT NULL NUMBER(5)

LAST NOT NULL VARCHAR2(15)

FIRST NOT NULL VARCHAR2(10)

COMM CHAR(1)

BASE\_SALARY NUMBER(7,2)

**Problem E**

CODE:

CREATE TABLE book\_stores (

store\_id NUMBER(8) PRIMARY KEY,

name VARCHAR2(30) UNIQUE NOT NULL,

contact VARCHAR2(20),

rep\_id VARCHAR2(5)

);

DESC BOOK\_STORES

OUTPUT:

Table BOOK\_STORES created.

Name Null? Type

-------- -------- ------------

STORE\_ID NOT NULL NUMBER(8)

NAME NOT NULL VARCHAR2(30)

CONTACT VARCHAR2(20)

REP\_ID VARCHAR2(5)

**Problem F**

CODE:

ALTER TABLE book\_stores MODIFY (

rep\_id NUMBER(5)

);

ALTER TABLE book\_stores

ADD CONSTRAINT rep\_id\_fk FOREIGN KEY ( rep\_id )

REFERENCES store\_reps ( rep\_id );

DESC BOOK\_STORES;

OUTPUT:

Table BOOK\_STORES altered.

Table BOOK\_STORES altered.

Name Null? Type

-------- -------- ------------

STORE\_ID NOT NULL NUMBER(8)

NAME NOT NULL VARCHAR2(30)

CONTACT VARCHAR2(20)

REP\_ID NUMBER(5)

**Problem G**

CODE:

CREATE TABLE rep\_contracts (

store\_id NUMBER(8),

name NUMBER(30),

quarter CHAR(3),

rep\_id NUMBER(5),

PRIMARY KEY ( rep\_id,

store\_id,

quarter )

);

ALTER TABLE rep\_contracts

ADD CONSTRAINT rep2\_id\_fk FOREIGN KEY ( rep\_id )

REFERENCES store\_reps ( rep\_id );

ALTER TABLE rep\_contracts

ADD CONSTRAINT store\_id\_fk FOREIGN KEY ( store\_id )

REFERENCES book\_stores ( store\_id );

DESC REP\_CONTRACTS;

OUTPUT:

Table REP\_CONTRACTS created.

Table REP\_CONTRACTS altered.

Table REP\_CONTRACTS altered.

Name Null? Type

-------- -------- ----------

STORE\_ID NOT NULL NUMBER(8)

NAME NUMBER(30)

QUARTER NOT NULL CHAR(3)

REP\_ID NOT NULL NUMBER(5)

**Problem H**

CODE:

SELECT

constraint\_name

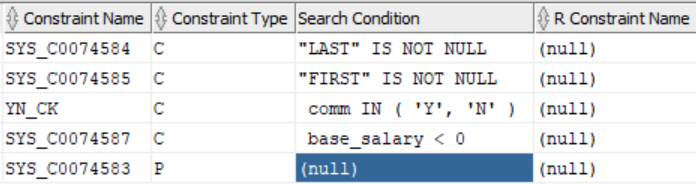
FROM

user\_constraints

WHERE

table\_name = 'STORE\_REPS';

OUTPUT:



It wasn’t formatting properly.

**Problem I**

CODE:

ALTER TABLE TAX

ADD CONSTRAINT STATE\_NAME\_PK PRIMARY KEY (STATE);

OUTPUT:

Error starting at line : 1 in command -

ALTER TABLE TAX

ADD CONSTRAINT STATE\_NAME\_PK PRIMARY KEY (STATE)

Error report -

ORA-02260: table can have only one primary key

02260. 00000 - "table can have only one primary key"

\*Cause: Self-evident.

\*Action: Remove the extra primary key.

CONSTRAINT\_NAME

----------------

STATE\_NAME\_PK

We did this in class.

**Problem J**

CODE:

ALTER TABLE CUSTOMERS

ADD CONSTRAINT CUSTOM\_ST\_FK FOREIGN KEY (STATE)

REFERENCES TAX (STATE);

ALTER TABLE ORDERS

ADD CONSTRAINT ORDRS\_ST\_FK FOREIGN KEY (STATE)

REFERENCES TAX (STATE);

SELECT

constraint\_name

FROM

user\_constraints

WHERE

table\_name = 'ORDERS';

SELECT

constraint\_name

FROM

user\_constraints

WHERE

table\_name = 'CUSTOMERS';

OUTPUT:

Error starting at line : 2 in command -

ALTER TABLE CUSTOMERS

ADD CONSTRAINT CUSTOM\_ST\_FK FOREIGN KEY (STATE)

REFERENCES TAX (STATE)

Error report -

ORA-02275: such a referential constraint already exists in the table

02275. 00000 - "such a referential constraint already exists in the table"

\*Cause: Self-evident.

\*Action: Remove the extra constraint.

We did this one in class.

Table ORDERS altered.

CONSTRAINT\_NAME

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SYS\_C0073877

ORDERS\_ORDER#\_PK

ORDERS\_CUSTOMER#\_FK

Y\_OR\_N\_CK

ORDRS\_ST\_FK

CONSTRAINT\_NAME

----------------

CUSTOM\_ST\_FK

SYS\_C0073873

SYS\_C0073874

CUSTOMERS\_REGION\_CK

CUSTOMERS\_CUSTOMER#\_PK