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ASSIGNMENT 6

6.5.1

a)

```
INSERT INTO PC([model], [hd], [ram], [speed], [rd], [price])
        VALUES ('1100', 80, 256, 1800, '20xDVD', 2499)
INSERT INTO Product([model], [maker], [type])
        VALUES ('1100', 'C', 'PC')
```

Inserting one new row into table PC and one new row into table Product

b)

```
INSERT Laptop([model], [hd], [ram], [speed], [screen], [price])
        (SELECT model + 1100, hd, ram, speed, 15, price+500
        FROM PC)
INSERT Product([model], [maker], [type])
        (SELECT PC.model + 1100, maker, 'Laptop'
         FROM Product, PC
         WHERE PC.model = Product.model)
```

Inserting 14 new rows into table Laptop and 14 new rows into table Product

c)

```
DELETE FROM Product
WHERE model IN(    SELECT model
                                FROM PC
                                WHERE hd < 20)


DELETE FROM PC
WHERE hd < 20
```

Deleting 3 rows from table Product and 3 rows from table PC

d)

```
DELETE FROM Product
WHERE model IN(    SELECT Laptop.model
                   FROM Product, Laptop
                   WHERE maker NOT IN(      SELECT DISTINCT(maker)
                                            FROM Product
                                            WHERE type = 'printer')
                         AND Laptop.model = Product.model)

DELETE FROM Laptop
WHERE model NOT IN(      SELECT Laptop.model
                         FROM Product, Laptop
                         WHERE Product.model = Laptop.model)
```

Deleting 19 rows from table Laptop and 19 rows from table Product

e)

```
UPDATE Product
SET maker = 'A'
WHERE maker = 'B'
```

Updating 2 rows in table Product

f)

```
UPDATE PC
SET ram = ram*2, hd = hd + 20
```

Update 11 rows in table PC

g)

```
UPDATE Laptop
SET screen = screen + 1, price = price - 100
WHERE EXISTS(     SELECT *
                  FROM Product
```

WHERE maker = 'B' and Product.model = Laptop.model)

Updating 0 rows

6.5.2

a)

```
INSERT INTO Classes([class], [country], [type], [bore], [displacement], [numGuns])
    VALUES ('Nelson', 'Gt. Britain', 'bb', 16, 34000, 9)
INSERT INTO Ships([class], [name], [launched])
    VALUES ('Nelson', 'Nelson', 1927)
INSERT INTO Ships([class], [name], [launched])
    VALUES ('Nelson', 'Rodney', 1927)
```

b)

```
INSERT INTO Classes([class], [country], [type], [bore], [displacement], [numGuns])
    VALUES ('Vittorio Veneto', 'Italy', 'bb', 15, 41000, 9)
INSERT INTO Ships([class], [name], [launched])
    VALUES ('Vittorio Veneto', 'Vittorio Veneto', 1940)
INSERT INTO Ships([class], [name], [launched])
    VALUES ('Vittorio Veneto', 'Italia', 1940)
INSERT INTO Ships([class], [name], [launched])
    VALUES ('Vittorio Veneto', 'Roma', 1942)
```

c)

```
DELETE FROM Ships
WHERE name IN ( SELECT ship
                FROM Outcomes
                WHERE result = 'sunk')

DELETE FROM Outcomes
WHERE result = 'sunk'
```

d)

```
UPDATE Classes
SET bore = bore * 2.5, displacement = displacement / 1.1
```

e)

```
SELECT Ships.name, Ships.class INTO #temp
FROM Ships, Classes
WHERE Ships.class = Classes.class
GROUP BY Ships.class, Ships.name
HAVING COUNT(Ships.name) < 3

DELETE FROM Classes
WHERE class IN (SELECT class FROM #temp)

DELETE FROM Ships
WHERE name IN (SELECT name FROM #temp)

DELETE FROM Outcomes
WHERE ship IN (SELECT name FROM #temp)
```

6.7.1

a)

```
CREATE VIEW RichExec AS
        SELECT name, address, cert, netWorth
        FROM MovieExec
        WHERE netWorth >= 10000000
```

b)

```
CREATE VIEW StudioPres AS
        SELECT MovieExec.name, MovieExec.address, cert
        FROM Studio, MovieExec
```

WHERE presC = cert

c)

```
CREATE VIEW ExecutiveStar AS
    SELECT ME.name, ME.address, gender, birthdate, cert, netWorth
    FROM MovieExec ME, MovieStar MS
    WHERE ME.name = MS.name
```

6.7.2

a) Is updatable because we are only grabbing attributesfrom one table and so long as we insert the necessary or required information (all attributes displayed), then we can update the view. Also note that RichExecis not part of any subquery of the original view creation.

6.7.3

a)

```
SELECT name
FROM ExecutiveStar
WHERE gender = 'female'
```

b)

```
SELECT StudioPres.name
FROM StudioPres, RichExec
WHERE StudioPres.cert = RichExec.cert
```

c)

```
SELECT StudioPres.name
FROM StudioPres, ExecutiveStar
WHERE StudioPres.cert = ExecutiveStar.cert
    AND netWorth >= 50000000
```

3)

DTD

```
<!DOCTYPE Projects[
```

```
<!ELEMENT Projects (Project+)>
<!ELEMENT Project (Name, Number, Location, Dept_no, Worker*)>
<!ELEMENT Name (#PCDATA)>
<!ELEMENT Number (#PCDATA)>
<!ELEMENT Location (#PCDATA)>
<!ELEMENT Dept_no (#PCDATA)>
<!ELEMENT Worker (Ssn, First_name?, Last_name?, Hours?)>
<!ELEMENT Ssn (#PCDATA)>
<!ELEMENT First_name (#PCDATA)
<!ELEMENT Last_name (#PCDATA)>
<!ELEMENT Hours (#PCDATA)>
]>
```

XML schema

```
<?xml version="1.0" encoding="utf-8" ?>
<xs:schema xmlns:xs=" http://www.w3.org/2005/XMLSchema"
        targetNamespace="http://www.w3schools.com"
        xmlns="http://www.w3schools.com">
<xs:element name=“Projects">
<xs:complexType>
        <xs:sequence>
                <xs:element name="Project" maxOccurs="unbounded">
                <xs:complexType>
                        <xs:sequence>
                                <xs:element name="Name" type="xs:string"/>
                                <xs:element name="Number" type="xs:string"/>
                                <xs:element name="Location" type="xs:string"/>
                                <xs:element name="Dept_no" type="xs:string"/>
```

```
                    <xs:element name="Worker" minOccurs="0"
maxOccurs="unbounded">
                    <xs:complexType>
                        <xs:sequence>
                            <xs:element name="Ssn" type="xs:string"/>
                            <xs:element name="First_name" type="xs:string"
minOccurs="0"/>
                            <xs:element name="Last_name" type="xs:string"
minOccurs="0"/>
                            <xs:element name="Hours" type="xs:decimal"
minOccurs="0"/>
                        </xs:sequence>
                    </xs:complexType>
                </xs:sequence>
            </xs:complexType>
        </xs:sequence>
</xs:complexType>
</xs:element>
</xs:schema>
```