

Assignment 5

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Review Question 2

It might be appropriate to save a number as character data when the number does not need to have operations done upon it, like for example phone numbers. It might also be useful to store values that are outside the range of bigint, and you can do mathematics on them in a programming language with no limit integers. It may also be useful to store numbers that have leading zeros of significance.

Review Question 5

It is used to check if a value being written to the database is within a range. For example, you would want to CHECK if the value being entered into table is within the range of 1 to 5. If it is not within the range checked it is disallowed from entry.

Review Question 7

An updates statement updates the data in a table. It can modify existing data. Insert is for adding data to the table, it cannot modify data.

Rick Question 1:

```
CREATE TABLE JOB
(
    JOB_CODE INT AUTO_INCREMENT,
    JOB_DESCRIPTION VARCHAR(25),
    JOB_CHG_HOUR DECIMAL(8,2),
    JOB_LAST_UPDATE DATETIME,
    PRIMARY KEY(JOB_CODE)
);
ALTER TABLE JOB AUTO_INCREMENT = 500;
```

```
CREATE TABLE EMPLOYEE
```

```
(
    EMP_NUM INT AUTO_INCREMENT,
    EMP_LNAME VARCHAR(15),
    EMP_FNAME VARCHAR(15),
    EMP_INITIAL VARCHAR(1),
    EMP_HIREDATE DATETIME,
```

```

EMP_YEARS INT,
JOB_CODE INT,
PRIMARY KEY (EMP_NUM),
FOREIGN KEY(JOB_CODE)
    REFERENCES JOB(JOB_CODE)
    ON DELETE NO ACTION
    ON UPDATE CASCADE
);

```

```
ALTER TABLE EMPLOYEE AUTO_INCREMENT = 100;
```

```
INSERT INTO JOB(JOB_DESCRIPTION, JOB_CHG_HOUR, JOB_LAST_UPDATE) VALUES
("Programmer", 35.75, "2017-11-20");
```

```
INSERT INTO JOB(JOB_DESCRIPTION, JOB_CHG_HOUR, JOB_LAST_UPDATE) VALUES
("Systems Analyst", 96.75, "2017-11-20");
```

```
INSERT INTO JOB(JOB_DESCRIPTION, JOB_CHG_HOUR, JOB_LAST_UPDATE) VALUES
("Database Designer", 125.00, "2018-03-24");
```

```
INSERT INTO EMPLOYEE(EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE,
EMP_YEARS) VALUES ("News", "John", "G", "2000-11-08", 501, 4);
```

```
INSERT INTO EMPLOYEE(EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE,
EMP_YEARS) VALUES ("Senior", "David", "H", "1989-07-12", 500, 15);
```

```
INSERT INTO EMPLOYEE(EMP_LNAME, EMP_FNAME, EMP_INITIAL, EMP_HIREDATE, JOB_CODE,
EMP_YEARS) VALUES ("Arbough", "June", "E", "1996-12-01", 502, 8);
```

Rick Question 2:

You cannot create employee because there is no key for the foreign key to reference and will give an error along the lines of "Foreign key constraint incorrectly formatted."

Rick Question 3:

You cannot add an entry with an invalid job code because the foreign key specifies that the value must be an already defined value in JOB, and thus the constraint fails and gives an error.