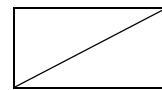


Name: _____ () Class: _____ Date: _____



Quiz 2: SQL

- 1 A relational database stores information about various superheroes. The tables and a sample of their contents is shown below (Weight is in kg, Height is in cm):

Superhero

Name	Gender	Race	Weight	Height	PublisherID
Darth Vader	Male	Cyborg	135	198	L099
Star-Lord	Male	Human	79	188	M005
Storm	Female	Mutant	57	180	M005
Swarm Thing	Male	NULL	NULL	NULL	M005
Batman	Male	Human	77	178	D002
Bionic Woman	Female	Cyborg	62	165	D002
Indiana Jones	Male	Human	68	183	L099

Publisher

ID	PublisherName	Location
L099	Lucas Studio	US
M005	Marvel Comics	US
D002	DC Comics	US

- (a) Write the SQL statements that was used to create the two tables above. Use appropriate data types and constraints for the attributes and tables.

```
CREATE TABLE Superhero (
    Name TEXT NOT NULL PRIMARY KEY,
    Gender TEXT NOT NULL,
    Race TEXT,
    Weight INTEGER,
    Height INTEGER,
    "Publisher ID" TEXT NOT NULL,
    FOREIGN KEY(PublisherID) REFERENCES Publisher(ID)
```

1m all attributes + types

1m PK,FK

```
CREATE TABLE Publisher (
    ID TEXT NOT NULL,
    PublisherName TEXT NOT NULL,
    Location TEXT,
    PRIMARY KEY(ID)
);
```

1m all attributes + type + PK

[3]

- (b) Write the SQL statement to change all the the Location values in the Publisher table from "US" to "USA"

```
UPDATE Publisher
SET Location = "USA"
WHERE Location = "US"
```

[1]

- (c) Write the SQL statement to show the names of all female superheroes.

```
SELECT Name from Superhero
WHERE Gender = "Female"
```

[1]

- (d) Write the SQL statement to list all the attributes for superoes that are humans and weigh more than 70 Kg

```
SELECT * FROM Superhero
WHERE Race = "Human" AND Weight > 70 # [2]
```

[2]

- (e) Write the SQL statement to print the names of male superoes from the publisher "DC Comics". [You cannot use the PublisherID of DC Comics in the WHERE cluse directly]

```
SELECT Superhero.Name
FROM Superhero
INNER JOIN Publisher ON Superhero.PublisherID =
Publisher.ID #[1]
WHERE Superhero.Gender = "Male" AND PublisherName = "DC
Comics" #[2]
```

[3]

- (e) Write the SQL statement to find the names of all non-human superheroes whose height is between 160 cm and 190 cm (inclusive)

```
SELECT name FROM
Superhero
WHERE Race <> "Human" AND #[1]
Height >= 160 AND #[1]
Height <= 190
```

[2]

- (f) Write the SQL statement to print the the number of different races in the superheroes table. Only those have a race should be counted.

Example:

Race	Number
Cyborg	2
Human	3
Mutant	1

```
SELECT Race, COUNT(*) Number FROM Superhero #[1]
WHERE Race is not null #[1]
GROUP BY Race #[1]
or
SELECT Race, COUNT(Race) Number FROM Superhero
GROUP BY Race
HAVING Number > 0
```

[3]

- (g) Print the name of the heaviest female superhero and her weight.

```
SELECT Name, MAX(WEIGHT) FROM Superhero #[1]
WHERE Gender = 'Female' #[1]
or
SELECT Name, Weight FROM Superhero
WHERE Gender = 'Female'
ORDER BY Weight DESC
LIMIT 1
```

[2]