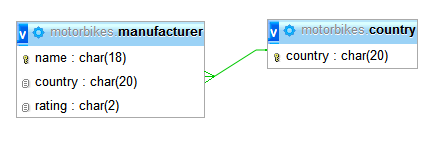
#### Student Activity 2

In this activity we will use the motorbikes database to answer questions like;

* How many motorcycle companies are located in China?
* How many motorcycles companies are located in Japan?
* What are the names of the motorcycles companies in Bangladesh?

The following Entity Relationship (E-R) diagram shows the two tables in the motorcycles database and how they are related.



Create a database called motorcycle. Use the following scripts to create the two tables. Ensure the order is the country table first followed by manufacturer table. Then add the constraints, finally, add the motorcycle data from the file in course resources.

CREATE TABLE `country` (

`country` char(20) NOT NULL,

PRIMARY KEY (`country`)

);

CREATE TABLE `manufacturer` (

`name` char(18) NOT NULL,

`country` char(20) NOT NULL,

`rating` char(2) NOT NULL,

PRIMARY KEY (`name`),

KEY `country` (`country`)

);

ALTER TABLE `manufacturer`

ADD CONSTRAINT `manufacturer\_constraint` FOREIGN KEY (`country`) REFERENCES `country` (`country`) ON DELETE CASCADE ON UPDATE CASCADE;

Now run each of the insert scripts from files associated with this session (contact your Lecturer for further details); run the country data first, and the manufacturer data last.

Once you have confirmed the structure and data in the tables you can run/create the following queries to answer the following questions.

1. How many motorcycle companies are located in China (order by rating descending)?

SELECT \* FROM `manufacturer` WHERE `country` = "China" ORDER BY `rating` DESC;

1. How many motorcycles companies are located in Japan?

SELECT \* FROM `manufacturer` WHERE `country` = "Japan";

1. What are all the names of the motorcycle companies in Italy that start with V?

SELECT name FROM `manufacturer` WHERE `country` = "Italy" and `name` LIKE "V%";

1. What are the names of the motorcycles companies in Bangladesh?

SELECT \* FROM `manufacturer` WHERE `country` = "Bangladesh";

1. How many motorcycle companies are located in China with a rating higher than four ( > 4)?

SELECT \* FROM `manufacturer` WHERE `country` = "China" AND `rating` > 4;

1. How many motorcycles companies have a rating of 10?

SELECT \* FROM `manufacturer` WHERE `rating` = 10;

Use the preceding SQL to answer these questions,

1. Which countries have motorcycles companies with a rating of 2?
2. How many motorcycles company names start with Z?
3. Which country has a motorcycles company called “Gas Gas”?
4. Where is the “Golden Bee” motorcycle company located?

Solutions

1. (ans 14), 2. (ans 4), 3. (ans Vertemati and Vyrus), 4. (ans Atlas PTY, Singer PTY and Walton Hi-Tech), 5. (ans 9), 6. (ans 5), 7. (Indonesia and China) , 8. (ans 1) , 9. (Spain), 10. (ans Taiwan).

NOTE: The SQL file with table structures and data is located in the resource folder associated with this course.

End of Student Activity 2