DATABASE LAB REPORT

CSE 414

Submitted by:

ID: 15701004

Rumman Rashid Chowdhury

Department of CSE

University of Chittagong

MySQL Commands:

mysql> CREATE DATABASE menagerie;

mysql> USE menagerie

mysql> CREATE TABLE pet (name VARCHAR(20), owner VARCHAR(20),
-> species VARCHAR(20), sex CHAR(1), birth DATE, death DATE);

mysql> SHOW TABLES;

mysql> DESCRIBE pet;

mysql> INSERT INTO pet
-> VALUES ('Puffball','Diane','hamster','f','1999-03-30',NULL);

mysql> SELECT * FROM pet;

mysql> UPDATE pet SET birth = '1989-08-31' WHERE name = 'Bowser';

mysql> SELECT * FROM pet WHERE name = 'Bowser';

mysql> SELECT * FROM pet WHERE birth >= '1998-1-1';

mysql> SELECT * FROM pet WHERE species = 'dog' AND sex = 'f';

mysql> SELECT * FROM pet WHERE species = 'snake' OR species = 'bird';

mysql> SELECT * FROM pet WHERE (species = 'cat' AND sex = 'm')
-> OR (species = 'dog' AND sex = 'f');

mysql> SELECT name, birth FROM pet;

mysql> SELECT owner FROM pet;

mysql> SELECT DISTINCT owner FROM pet;

mysql> SELECT name, species, birth FROM pet
-> WHERE species = 'dog' OR species = 'cat';

mysql> SELECT name, birth FROM pet ORDER BY birth;

mysql> SELECT name, birth FROM pet ORDER BY birth DESC;

mysql> SELECT name, species, birth FROM pet
-> ORDER BY species, birth DESC;

mysql> SELECT name, birth, CURDATE(),
-> TIMESTAMPDIFF(YEAR,birth,CURDATE()) AS age
-> FROM pet ORDER BY name;

```
mysql> SELECT name, birth, CURDATE(),
-> TIMESTAMPDIFF(YEAR,birth,CURDATE()) AS age
-> FROM pet ORDER BY age;

mysql> SELECT name, birth, death,
-> TIMESTAMPDIFF(YEAR,birth,death) AS age
-> FROM pet WHERE death IS NOT NULL ORDER BY age;

mysql> SELECT name, birth, MONTH(birth) FROM pet;

mysql> SELECT name, birth FROM pet WHERE MONTH(birth) = 5;

mysql> SELECT name, birth FROM pet
-> WHERE MONTH(birth) = MONTH(DATE_ADD(CURDATE(),INTERVAL 1 MONTH));

mysql> SELECT name, birth FROM pet
-> WHERE MONTH(birth) = MOD(MONTH(CURDATE()), 12) + 1;

mysql> SELECT * FROM pet WHERE name LIKE 'b%';

mysql> SELECT * FROM pet WHERE name LIKE '%fy';

mysql> SELECT * FROM pet WHERE name LIKE '%w%';

mysql> SELECT * FROM pet WHERE name REGEXP 'w';

mysql> SELECT COUNT(*) FROM pet;

mysql> SELECT owner, COUNT(*) FROM pet GROUP BY owner;

mysql> SELECT species, COUNT(*) FROM pet GROUP BY species;

mysql> SELECT sex, COUNT(*) FROM pet GROUP BY sex;

mysql> SELECT species, sex, COUNT(*) FROM pet GROUP BY species, sex;

mysql> SELECT species, sex, COUNT(*) FROM pet
-> WHERE species = 'dog' OR species = 'cat'
-> GROUP BY species, sex;

mysql> SELECT species, sex, COUNT(*) FROM pet
-> WHERE sex IS NOT NULL
-> GROUP BY species, sex;

mysql> SELECT p1.name, p1.sex, p2.name, p2.sex, p1.species
-> FROM pet AS p1 INNER JOIN pet AS p2
-> ON p1.species = p2.species AND p1.sex = 'f' AND p2.sex = 'm';

mysql> CREATE TABLE shop (
-> article INT(4) UNSIGNED ZEROFILL DEFAULT '0000' NOT NULL,
-> dealer CHAR(20) DEFAULT '' NOT NULL,
-> price DOUBLE(16,2) DEFAULT '0.00' NOT NULL,
-> PRIMARY KEY(article, dealer));
```

```
mysql> INSERT INTO shop VALUES
-> (1,'A',3.45),(1,'B',3.99),(2,'A',10.99),(3,'B',1.45),
-> (3,'C',1.69),(3,'D',1.25),(4,'D',19.95);

mysql> SELECT * FROM shop;

mysql> SELECT MAX(article) AS article FROM shop;

mysql> SELECT article, dealer, price
->  FROM shop
->  WHERE price=(SELECT MAX(price) FROM shop);

mysql> SELECT s1.article, s1.dealer, s1.price
-> FROM shop s1
-> LEFT JOIN shop s2 ON s1.price < s2.price
-> WHERE s2.article IS NULL;
-> SELECT article, dealer, price
-> FROM shop
-> ORDER BY price DESC
-> LIMIT 1;

mysql> SELECT article, MAX(price) AS price
-> FROM shop
-> GROUP BY article;

mysql> SELECT article, dealer, price
-> FROM shop s1
-> WHERE price=(SELECT MAX(s2.price)
-> FROM shop s2
-> WHERE s1.article = s2.article);

mysql> SELECT field1_index, field2_index
->  FROM test_table WHERE field1_index = '1'
->  UNION
->  SELECT field1_index, field2_index
->  FROM test_table WHERE field2_index = '1';

mysql> CREATE TABLE animals (
-> id MEDIUMINT NOT NULL AUTO_INCREMENT,
-> name CHAR(30) NOT NULL,
-> PRIMARY KEY (id) )
-> ENGINE=INNODB;

mysql> INSERT INTO animals (name) VALUES
-> ('dog'),('cat'),('penguin'),
-> ('lax'),('whale'),('ostrich');

mysql> SELECT * FROM animals;
```

Backup and Restore:

C:\Windows\system32>cd C:\Program Files\MySQL\MySQL Server 5.7\bin

C:\Program Files\MySQL\MySQL Server 5.7\bin>mysqldump -u root -p university > varsity.sql

Enter password: ****

C:\Windows\system32>cd C:\Program Files\MySQL\MySQL Server 5.7\bin

C:\Program Files\MySQL\MySQL Server 5.7\bin>mysql -u root -p varsity < varsity.sql

Enter password: ****