W4D1 Homework

1. Design the tables in database, attention their relationship and the constraint (primary key, foreign key)

CREATE TABLE userHW (

user\_id INTEGER PRIMARY KEY,

user\_name VARCHAR(100),

first\_name VARCHAR(100),

last\_name VARCHAR(100),

pass\_word VARCHAR(100),

date\_created DATE

);

CREATE TABLE orderitemHW (

item\_id INTEGER PRIMARY KEY,

item\_name VARCHAR(100),

item\_desc VARCHAR(100),

item\_cost FLOAT,

date\_created DATE

);

CREATE TABLE orderHW (

order\_id INTEGER PRIMARY KEY,

item\_id INTEGER,

quantity INTEGER,

user\_id INTEGER,

date\_order DATE,

CONSTRAINT FK\_ITEM\_ID FOREIGN KEY (item\_id) REFERENCES orderitemHW(item\_id),

CONSTRAINT FK\_USER\_ID FOREIGN KEY (user\_id) REFERENCES userHW(user\_id)

);

1. What are DQL, DML, DDL and DCL for Database? And what their commands? And give examples for each one based the above tables “User”, “Order” and “OrderItem”.
2. Data Query Language(DQL) contains only one command – SELECT ,which used to retrive the data from database.

SELECT U.FIRST\_NAME,

I.ITEM\_NAME,

(O.QUANTITY \* I.ITEM\_COST) AS SUB\_COST

FROM ORDERHW O,

ORDERITEMHW I,

USERHW U

WHERE

O.ITEM\_ID = I.ITEM\_ID AND

O.USER\_ID = U.USER\_ID AND

O.DATE\_ORDER LIKE '%JUL%';

1. Data Manipulation Language (DML) - INSERT, SELECT, UPDATE, DELETE, Performing read-only queries

INSERT INTO USERHW

VALUES (3,'MOLLA','MORENA','DELIKS','WALA','28-FEB-11');

INSERT INTO ORDERITEMHW

VALUES (1,'AQUA','PURIFIED WATER',5.3,'22-JUL-01');

INSERT INTO ORDERHW

VALUES (1,1,10,1,'26-APR-08');

UPDATE ORDERHW

SET QUANTITY = 10

WHERE ORDER\_ID = 1;

UPDATE ORDERITEMHW

SET ITEM\_COST = 56.2

WHERE ORDER\_NAME = ‘DELL’;

UPDATE USERHW

SET PASS\_WORD = ‘NOP@SS ‘

WHERE USER\_ID = ‘DEQUIAL’;

DELETE FROM ORDERHW;

DELETE FROM ORDERITEMHW

WHERE ITEM\_NAME =’AQUA’;

DELETE FROM USERHW

WHERE USER\_NAME LIKE ’%E%’;

1. Data Definition Language (DDL) – CREATE,DROP,ALTER,RENAME, defining data structures

DROP TABLE orderHW;

DROP TABLE userHW;

DROP TABLE orderitemHW;

RENAME orderHW TO ordersHW;

RENAME userHW TO usersHW;

RENAME orderitemHW TO itemHW;

ALTER TABLE orderHW

ADD LOCATION\_PLACE varchar2(45);

ALTER TABLE userHW

MODIFY PASS\_WORD varchar2(50);

ALTER TABLE orderitemHW

DROP DATE\_ORDER;

1. Data Control Language (DCL) – GRANT,REVOKE, create privileges to users

GRANT SELECT ON orderHW TO DEQUIAL;

GRANT SELECT, INSERT, UPDATE, DELETE ON userHW TO public;

REVOKE ALL ON orderitemHW FROM DEQUIAL;