**SQL Query Report(Lab 5)**

**Given:**

CREATE TABLE CUSTOMER (

CUSTOMER\_NO CHAR (5) PRIMARY KEY ,

CUSTOMER\_NAME VARCHAR (20) NOT NULL ,

CUSTOMER\_CITY VARCHAR (10)

) ;

CREATE TABLE ACCOUNT (

ACCOUNT\_NO CHAR (5) PRIMARY KEY ,

BALANCE DECIMAL (12 ,2) NOT NULL

) ;

CREATE TABLE DEPOSITOR (

CUSTOMER\_NO CHAR (5) ,

ACCOUNT\_NO CHAR (5) ,

PRIMARY KEY ( CUSTOMER\_NO , ACCOUNT\_NO )

) ;

INSERT INTO CUSTOMER ( CUSTOMER\_NO , CUSTOMER\_NAME , CUSTOMER\_CITY ) VALUES

('C-101', 'John Doe','DHK'),

('C-102', 'Jane Smith', 'KHL'),

('C-103', 'Alice Brown', 'CTG'),

 ('C-104', 'Bob Johnson', 'DHK') ;

INSERT INTO ACCOUNT ( ACCOUNT\_NO , BALANCE ) VALUES('A-101', 5000.00),

('A-102', 15000.00),

('A-103', 25000.00),

('A-104', 8000.00);

INSERT INTO DEPOSITOR ( CUSTOMER\_NO , ACCOUNT\_NO ) VALUES ('C-101', 'A-101'),

('C-102', 'A-102'),

('C-103', 'A-103'),

('C-104', 'A-104');

**Task Set 1:**

*-- task 1:*

ALTER TABLE CUSTOMER

ADD COLUMN DATE\_OF\_BIRTH DATE;

*-- task 2:*

RENAME TABLE DEPOSITOR TO DEPOSITOR\_INFO;

*-- task 3:*

ALTER TABLE DEPOSITOR\_INFO

CHANGE COLUMN CUSTOMER\_NO C\_NO CHAR(5);

ALTER TABLE DEPOSITOR\_INFO

CHANGE COLUMN ACCOUNT\_NO A\_NO CHAR(5);

*-- task 4:*

ALTER TABLE DEPOSITOR\_INFO

ADD CONSTRAINT fk\_customer FOREIGN KEY (C\_NO) REFERENCES CUSTOMER(CUSTOMER\_NO);

ALTER TABLE DEPOSITOR\_INFO

ADD CONSTRAINT fk\_account FOREIGN KEY (A\_NO) REFERENCES ACCOUNT(ACCOUNT\_NO);

*-- task 5:*

SELECT \* FROM CUSTOMER;

*-- TASK 6:*

SELECT CUSTOMER.CUSTOMER\_NAME, ACCOUNT.BALANCE

FROM CUSTOMER

INNER JOIN DEPOSITOR\_INFO ON CUSTOMER.CUSTOMER\_NO = DEPOSITOR\_INFO.C\_NO

INNER JOIN ACCOUNT ON DEPOSITOR\_INFO.A\_NO = ACCOUNT.ACCOUNT\_NO;

*-- TASK 7:*

SELECT AVG(BALANCE) AS Average\_Balance

FROM ACCOUNT;

*-- TASK 8:*

SELECT CUSTOMER\_NAME, A\_NO

FROM CUSTOMER

NATURAL JOIN DEPOSITOR\_INFO;

*-- TASK 9:*

UPDATE CUSTOMER

SET CUSTOMER\_CITY = 'KLN'

WHERE CUSTOMER\_NO = 'C-102';

*-- TASK 10:*

DELETE FROM ACCOUNT

WHERE ACCOUNT\_NO = 'A-104';

*-- TASK 11:*

DELETE FROM CUSTOMER

WHERE CUSTOMER\_NO NOT IN (SELECT C\_NO FROM DEPOSITOR\_INFO);

**Task Set 2:**

*-- Task 2.1*

CREATE TABLE LOAN(

LOAN\_NO CHAR(5) PRIMARY KEY,

AMOUNT DECIMAL(12,2) NOT NULL

);

*-- TASK 2.2*

INSERT INTO LOAN VALUES ('L-201', 10000.00),

('L-202', 20000.00),

('L-203', 15000.00);

CREATE TABLE BORROWER (

CUSTOMER\_NO CHAR (5) ,

LOAN\_NO CHAR (5) ,

PRIMARY KEY (CUSTOMER\_NO , LOAN\_NO) ,

FOREIGN KEY (CUSTOMER\_NO) REFERENCES CUSTOMER (CUSTOMER\_NO) ,

FOREIGN KEY (LOAN\_NO) REFERENCES LOAN (LOAN\_NO)

) ;

INSERT INTO BORROWER VALUES ('C-101', 'L-201'),

('C-102', 'L-202'),

('C-103', 'L-203');

*-- TASK 2.3*

SELECT CUSTOMER.CUSTOMER\_NO, CUSTOMER.CUSTOMER\_NAME

FROM CUSTOMER

INNER JOIN DEPOSITOR\_INFO ON CUSTOMER.CUSTOMER\_NO = DEPOSITOR\_INFO.C\_NO

INNER JOIN BORROWER ON CUSTOMER.CUSTOMER\_NO = BORROWER.CUSTOMER\_NO;

*-- TASK 2.4*

SELECT CUSTOMER.CUSTOMER\_NO, CUSTOMER.CUSTOMER\_NAME

FROM CUSTOMER

INNER JOIN DEPOSITOR\_INFO ON CUSTOMER.CUSTOMER\_NO = DEPOSITOR\_INFO.C\_NO

LEFT JOIN BORROWER ON CUSTOMER.CUSTOMER\_NO = BORROWER.CUSTOMER\_NO

WHERE BORROWER.LOAN\_NO IS NULL;

*-- OR,*

 SELECT CUSTOMER.CUSTOMER\_NO, CUSTOMER.CUSTOMER\_NAME

FROM CUSTOMER

INNER JOIN DEPOSITOR\_INFO ON CUSTOMER.CUSTOMER\_NO = DEPOSITOR\_INFO.C\_NO

WHERE CUSTOMER.CUSTOMER\_NO NOT IN (

    SELECT BORROWER.CUSTOMER\_NO

    FROM BORROWER

);

*-- TASK 2.5*

UPDATE ACCOUNT

SET BALANCE = BALANCE \* 1.05

WHERE BALANCE < 10000;