1.

CREATE TABLE department(

id INT PRIMARY KEY,

name VARCHAR(64) NOT NULL UNIQUE,

description TEXT

);

CREATE TABLE bank (

id INT PRIMARY KEY,

name VARCHAR (64),

city VARCHAR(32));

CREATE TABLE employee(

bank\_id INT,

id INT PRIMARY KEY,

fullname VARCHAR(64) NOT NULL UNIQUE,

e\_salary DECIMAL(32),

department\_id INT ,

address TEXT,

t\_number VARCHAR (32),

marital\_status VARCHAR(32),

age INT,

gender VARCHAR (32),

FOREIGN KEY (bank\_id) REFERENCES bank(id),

FOREIGN KEY (department\_id) REFERENCES department(id)

);

CREATE TABLE account\_type(

id INT PRIMARY KEY,

description TEXT

);

CREATE TABLE customer(

bank\_id INT ,

id INT PRIMARY KEY,

customer\_account\_type\_id INT NOT NULL,

fullname varchar(64),

salary DECIMAL (32),

employee\_id INT ,

address TEXT,

t\_number VARCHAR(32),

marital\_status VARCHAR (32),

age INT,

account\_type\_id INT,

FOREIGN KEY (employee\_id) REFERENCES employee(id),

FOREIGN KEY (bank\_id) REFERENCES bank(id),

FOREIGN KEY (customer\_account\_type\_id) REFERENCES account\_type (id)

);

CREATE TABLE loans(

customer\_id\_loan INT ,

purpose TEXT NOT NULL,

amount\_$ DECIMAL(32) NOT NULL,

rate\_percent integer DEFAULT 15,

date\_take DATE,

date\_full\_back DATE,

FOREIGN KEY (customer\_id\_loan) REFERENCES customer(id)

);

CREATE TABLE shares(

customer\_id\_share INT,

description VARCHAR(64),

value DECIMAL(32),

FOREIGN KEY (customer\_id\_share) REFERENCES customer(id)

);

CREATE TABLE balance(

customer\_id\_balance INT,

type VARCHAR(32),

amount\_$ DECIMAL(32),

FOREIGN KEY (customer\_id\_balance) REFERENCES customer(id)

);

CREATE TABLE appointment (

customer\_id INT NOT NULL,

employee\_id INT,

date\_appointment DATE NOT NULL,

time\_appointment TIME,

purpose TEXT,

FOREIGN KEY (customer\_id) REFERENCES customer(id),

FOREIGN KEY (employee\_id) REFERENCES employee(id)

);

2

ALTER TABLE employee DROP COLUMN gender;

SELECT\*FROM employee;

ALTER TABLE customer DROP COLUMN account\_type\_id;

SELECT\*FROM customer;

ALTER TABLE balance ADD COLUMN rate\_percent INT;

SELECT\*FROM balance;

ALTER TABLE employee ADD COLUMN position VARCHAR(32);

SELECT\*FROM employee;

3.

Insert into department (id,name,description) VALUES

(1,‘Shareholder Relations Department’, ‘servicing bank shareholders’),

(2,‘Accounting department’,‘control of funds within the bank’),

(3,‘Human Resources Department’,‘hiring and supervising bank employees’),

(‘4’,‘problem loans department’,‘work with problem loans’),

('5','IT department','technical support');

SELECT \*FROM department;

Insert into bank(id,name,city) VALUES

(101,‘affiliate №201995’,‘New York’ ),

(201,‘ affiliate №101547’,‘Atlanta’),

(301,‘ affiliate №455707’,‘Rosemont’),

(401,‘ affiliate №750244’,‘Longview’),

(501,‘ affiliate №453452’,‘Dallas’),

(601,‘ affiliate №657502’,‘Minneapolis’),

(701,‘affiliate №101548’,‘Atlanta’);

SELECT \*FROM bank;

Insert into employee (bank\_id,id,fullname,e\_salary,department\_id,address,t\_number,marital\_status,age,position )

VALUES

('201','1','Angeli Counihan','5513','2','4470 Glendale Avenue','+86 (970) 373-9649',‘married’,'59',‘head of operations department’),

('601','2','Courtney Hargate','4554','3','1795 Maple Wood Road','+7 (567) 104-2870',‘divorced’,'27',‘security department specialist’),

('501','3','Salomi Rampley','4083','4','0 Cottonwood Way','+86 (611) 949-5315',‘married’,'29',‘manager’),

('401','4','Tani Ellwell','5174','5','217 Forest Run Park','+66 (267) 777-8249',‘divorced’,'56',‘evaluator’),

('201','5','Thain Raselles','7947','3','335 Shoshone Circle','+54 (932) 809-0078',‘married’,'31',‘Accountant’),

('301','6','Caldwell Walton','4297','5','805 Esker Circle','+976 (162) 658-4711',‘not married’,'42',‘back office manager’),

('101','7','Antonella Crispin','2843','2','02416 Bellgrove Center','+98 (737) 498-5638',‘married’,'38',‘head of operations department’);

SELECT \*FROM employee;

insert into account\_type (id,description) values

('777', 'PLATINUM.The ability to open 5 balance accounts, storage of different types of valuables, service with special consideration of the requirement'),

('101', 'Mass segment..Common type of service'),

(‘102’,‘Middle segment.increased withdrawal limit, increased remuneration rate’);

Select \* from account\_type;

Insert into customer(bank\_id,id,customer\_account\_type\_id,fullname,salary,employee\_id,address,t\_number,marital\_status ,age) VALUES

('501','11','777','Wade Vankin','4339',NULL,'33 Burrows Drive','+86 (179) 283-7701','married','39'),

('401','12','101','Avram Tottle','5766',NULL,'00 American Ash Pass','+31 (759) 642-6476','married','32'),

('601','13','102','Adria Dineen','4803',NULL ,'00 Mosinee Road','+58 (663) 849-5567','divorced','31'),

('101','14','777','Hagen Suero','7287', NULL ,'5240 Chive Junction','+86 (811) 559-1001','married','26'),

('601','15','777','Trip Brankley','4351',NULL ,'68624 Springview Lane','+51 (504) 283-6981','married','28'),

('501','16','777','Crissie Newark','3039',NULL,'4316 Iowa Park','+63 (663) 226-3617',' not married','23'),

('201','17','777','Nat Fochs','7128', NULL ,'5 Sage Way','+33 (876) 803-3211','not married','21'),

('401','18', ‘101’,'Kittie Landrieu','3483',NULL,'05 Steensland Plaza','+63 (195) 552-4813',‘not married’,'22');

INSERT INTO customer VALUES ( '101','19','101','Antonella Crispin','2843','7','02416 Bellgrove Center','+98 (737) 498-5638','married','38');

SELECT\*FROM customer;

insert into loans (customer\_id\_loan, purpose, amount\_$, rate\_percent, date\_take, date\_full\_back) values

(11, 'Car', 34115, 20, '2012-04-29', '2023-05-21'),

(12, 'House', 26744, 20, '2011-08-08', '2025-01-11'),

(13, 'TV', 32281, 20, '2014-09-08', '2021-11-26'),

(14, 'PlayStation 5', 35671, 20, '2019-12-07', '2025-08-02'),

(15, 'Bike', 26950, 20, '2020-10-26', '2021-11-08'),

(16, 'Laptop', 28043, 21, '2013-07-09', '2024-10-13'),

(17, 'Iphone 21', 40778, 20, '2011-05-08', '2023-11-18'),

(18, 'Watch', 27260, 20, '2011-08-23', '2023-10-11');

Select \* from loans;

Insert into shares(customer\_id\_share,description,value) VALUES

('11','appleO','14'),

('11','xiaomija','6'),

('11','Nike','5'),

('11','appleO','20'),

('12','Dollphonio ','15'),

('12','Amazon','5'),

('14','appleO','11'),

('14','xiaomija','2'),

('14','Walmart','5'),

('17','appleO','7'),

('19','Facebook','8'),

('18','Dollphonio','5'),

('15','Intel','9'),

('15','xiaomija','1'),

('15','Dollphonio','5');

Select\*from shares;

Insert into balance (customer\_id\_balance,type,amount\_$,rate\_percent)

VALUES

('11','deposit','100000',‘8’),

('12','deposit','10000',‘8’),

('13','deposit','2000',‘8’),

('14','deposit','200',‘8’),

('15','deposit','2000000',‘8’),

('16','deposit','5000',‘8’),

('17','deposit','6000',‘8’),

('18','deposit','9000',‘8’),

('19','deposit','10000',‘8’);

SELECT\*FROM balance;

insert into appointment (customer\_id, employee\_id, date\_appointment, time\_appointment, purpose) values

(11, 2, '2020-11-16', '12:44 PM','get a loan'),

(12, 3, '2020-11-04', '4:23 PM','open a deposit'),

(13, 4, '2020-11-23', '10:02 AM','make a money transfer'),

(14, 5, '2020-11-26', '1:37 PM', 'get a loan'),

(15, 4, '2020-11-10', '11:33 AM','install internet banking'),

(16, 4, '2020-11-23', '9:28 AM','open a deposit'),

(17, 6, '2020-11-11', '12:58 PM','term deposit operations’),

(18, 7, '2020-11-05', '10:55 AM','order a debit card'),

(19, 3, '2020-11-01', '1:20 PM', 'get a loan');

Select \* from appointment;

4.

UPDATE department SET description='service of individuals' WHERE id=4;

UPDATE appointment SET employee\_id=5 WHERE date\_appointment='2020-11-16' AND time\_appointment='12:44:00';

UPDATE customer SET address='18 Koishybek Hill' WHERE id=15 ;

UPDATE employee SET e\_salary=5000 WHERE e\_salary<3500 ;

UPDATE bank SET city='Los-Angeles' WHERE id=601;

DELETE FROM customer WHERE id=12;

DELETE FROM bank WHERE id=701;

DELETE FROM employee WHERE id=4;

DELETE FROM department WHERE id=7;

5.

1.Write a single query to display bank branches throughout the country

SELECT DISTINCT  id,name,cityFROMBank*;*

2.Write a single query to display the first name, last name of a client whose salary is between 2000 and 3500

SELECT fullname,id,salary

FROM Customer

WHERE Salary BETWEEN ‘2000’ AND ‘3500’;

3.Derive the marital status of bank employees.

SELECT marital\_status,COUNT(**\***)

FROM employee

GROUP BY marital\_status;

4.Write a single query to display the maximum salary in the ‘Pledge department’ department

SELECT MAX(e\_salary) AS maximum\_salary

FROM Employee, department

WHERE department.name= ‘Accounting department’;

5.Write a single query to Display the average salary of a bank employee, except for the position of an ‘IT\_ specialist’

SELECT AVG(e\_salary) AS average\_salary

FROM Employee

WHERE position != ‘Accountant’;

6. Write a single query to Display the full name, the amount of money in the client's account, as well as the date of the last visit.

SELECT customer.fullname,balance.type,balance.amount\_$,appointment.date\_appointment

FROM customer

INNER JOIN balance ON balance.customer\_id\_balance=customer.id

LEFT JOIN appointment ON appointment.customer\_id= customer.id ;

7.

SELECT fullname,id,salary,(SELECT AVG(salary) FROM customer) FROM customer;

SELECT\*FROM customer WHERE id IN (SELECT id FROM customer WHERE fullname LIKE 'A%');