DBMS PRACTICAL FILE _2

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```
(1). Create database 'bank'
SQL: create database if not exists bank;
(2). Create above tables in database 'bank'
SQL:
use bank;
create table if not exists account
account_number char(5) not null primary key,
branch_name varchar(10),
balance double
);
create table if not exists branch
branch_name varchar(10) not null primary key,
branch_city varchar(10),
assets double
);
create table if not exists customer
customer_name varchar(20) not null primary key,
customer_street varchar(20),
customer_city varchar(10)
);
create table if not exists loan
loan_number varchar(5) not null primary key,
branch_name varchar(10),
```

```
amount double
);
create table if not exists borrower
customer_name varchar(20) not null,
loan_number varchar(5) not null,
primary key(customer_name, loan_number)
);
create table if not exists depositor
customer_name varchar(20) not null,
account_number char(5) not null,
primary key(customer_name, account_number)
);
create table if not exists employee
employee_name varchar(20) not null,
branch_name varchar(10) not null,
salary double,
primary key(employee_name,branch_name)
);
```

Field	Туре	Null	Key	Default	Extra
account_number branch_name balance		NO YES YES	•	NULL NULL NULL	

ACCOUNT

Field	Туре	Null	Key	Default	Extra
customer_name	varchar(20) char(5)		PRI PRI		

BORROWER

Field	Туре	Null	Key	Default	Extra
branch_name branch_city asset		YES	!	NULL NULL NULL	
3 rows in set ((0.00 sec)				

BRANCH

Field	Type	Null	Key	Default	Extra
customer_name customer_street customer_city	varchar(20)	YES	PRI	NULL NULL NULL	
3 rows in set (0.00) sec)				r+

CUSTOMER

Field	Type	Null	Key	Default	Extra
Dname	int varchar(50) varchar(50)			NULL NULL NULL	
rows in se	et (0.00 sec)	+			++

DEPARTMENT

+	+ Type	 Null	Key	Default	++ Extra
customer_name		: :	PRI PRI		
+++++++					

DEPOSITOR

Field	Type	Null	Key	Default	Extra
employee_name branch_name salary			PRI		

EMPLOYEE

+ Field	Type	Null	Key	Default	+ Extra
loan_number branch_name amount	varchar(10)			NULL NULL NULL	
3 rows in set ((0.00 sec)				

LOAN

3)INSERT DATA INTO THOSE TABLES.

SQL:

Use bank;

insert into account values('A-101', 'Downtown', 500); insert into account values('A-102', 'Perryridge', 400); insert into account values('A-201', 'Brighton', 900); insert into account values('A-215', 'Mianus', 700); insert into account values('A-217', 'Brighton', 750); insert into account values('A-222', 'Redwood', 700); insert into account values('A-305', 'Round Hill', 350);

OUTPUT:

		++
account_number	brancn_name	Dalance
A-101	Downtown	500
A-102	Perryridge	400
A-201	Brighton	900
A-215	Mianus	700
A-217	Brighton	750
A-222	Redwood	700
A-305	Round Hill	350
		++

insert into branch values('Brighton', 'Brooklyn', 7100000); insert into branch values('Downtown', 'Brooklyn', 9000000); insert into branch values('Mianus', 'Horseneck', 400000); insert into branch values('North Town', 'Rye', 3700000); insert into branch values('Perryridge', 'Horseneck', 1700000); insert into branch values('Pownal', 'Bennington', 300000); insert into branch values('Redwood', 'Palo Alto', 2100000); insert into branch values('Round Hill', 'Horseneck', 8000000);

+	branch_city	+ asset
Brighton Downtown Mianus North Town Perryridge Pownal Redwood Round Hill	Brooklyn Brooklyn Horseneck Rye Horseneck Bennington Palo Alto Horseneck	7100000 9000000 400000 3700000 1700000 300000 2100000
8 rows in set ((0.00 sec)	

insert into customer values('Adams', 'Spring', 'Pittsfield'); insert into customer values('Brooks', 'Senator', 'Brooklyn'); insert into customer values('Curry', 'North', 'Rye'); insert into customer values('Glenn', 'Sand Hill', 'Woodside'); insert into customer values('Green', 'Walnut', 'Stamford'); insert into customer values('Hayes', 'Main', 'Harrison'); insert into customer values('Johnson', 'Alma', 'Palo Alto'); insert into customer values('Jones', 'Main', 'Harrison'); insert into customer values('Lindsay', 'Park', 'Pittsfield'); insert into customer values('Smith', 'North', 'Rye'); insert into customer values('Turner', 'Putnam', 'Stamford'); insert into customer values('Williams', 'Nassau', 'Princeton');

OUTPUT:

customer_name	customer_street	customer_city
 Adams	Spring	Pittsfield
Brooks	Senator	Brooklyn
Curry	North	Rye
Glenn	Sand Hill	Woodside
Green	Walnut	Stamford
Hayes	Main	Harrison
Johnson	Alma	Palo Alto
Jones	Main	Harrison
Lindsay	Park	Pittsfield
Smith	North	Rye
Turner	Putnam	Stamford
Williams	Nassau	Princeton
		·+

insert into depositor values('Hayes', 'A-102'); insert into depositor values('Johnson', 'A-102');

```
insert into depositor values('Johnson', 'A-201'); insert into depositor values('Jones', 'A-217'); insert into depositor values('Lindsay', 'A-222'); insert into depositor values('Smith', 'A-215'); insert into depositor values('Turner', 'A-305');
```

+ customer_name +	account_number
Hayes Johnson Johnson Jones Lindsay Smith Turner	A-102 A-102 A-201 A-217 A-222 A-215 A-305
7 rows in set (0	.00 sec)

insert into loan values('L-11', 'Round Hill', 900); insert into loan values('L-14', 'Downtown', 1500); insert into loan values('L-15', 'Perryridge', 1500); insert into loan values('L-16', 'Perryridge', 1300); insert into loan values('L-17', 'Downtown', 1000); insert into loan values('L-23', 'Redwood', 2000); insert into loan values('I-93', 'Mianus', 500);

OUTPUT:

+ loan_number	branch_name	
+	Round Hill Downtown Perryridge Perryridge Downtown Redwood	900 1500 1500 1300 1000 2000
7 rows in set ((0.00 sec)	+

```
insert into borrower values('Adams', 'L-16'); insert into borrower values('Curry', 'L-93'); insert into borrower values('Hayes', 'L-15'); insert into borrower values('Jackson', 'L-14'); insert into borrower values('Jones', 'L-17'); insert into borrower values('Smith', 'L-11'); insert into borrower values('Smith', 'L-23'); insert into borrower values('Williams', 'L-17');
```

+ customer_name +	++ loan_number ++
Adams	L-16
Curry	L-93
Hayes	L-15
Jackson	L-14
Jones	L-17
Smith	L-11
Smith	L-23
Williams	L-17
+	++
8 rows in set (0	.00 sec)

```
insert into employee values('Adams', 'Perryridge', 1500); insert into employee values('Brown', 'Perryridge', 1300); insert into employee values('Gopal', 'Perryridge', 5300); insert into employee values('Johnson', 'Downtown', 1500); insert into employee values('Loreena', 'Downtown', 1300); insert into employee values('Peterson', 'Downtown', 2500); insert into employee values('Rao', 'Austin', 1500); insert into employee values('Sato', 'Austin', 1600);
```

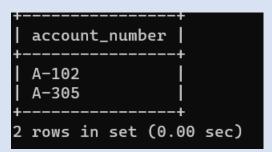
OUTPUT:

+	branch name	++ salary
+		sacary ++
Adams	Perryridge	1500
Brown	Perryridge	1300
Gopal	Perryridge	5300
Johnson	Downtown	1500
Loreena	Downtown	1300
Peterson	Downtown	2500
Rao	Austin	1500
Sato	Austin	1600
+		++
8 rows in set (0.	.00 sec)	

- (4). Perform queries on those tables
- 1. Find all account whose balance is smaller than 500.

Answer: select account_name from account where balance < 500;

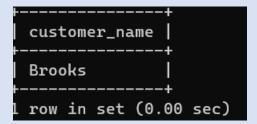
OUTPUT:



2. Find all name of customers whose city is in Brooklyn

Answer: select customer_name from customer where customer_city='Brooklyn';

OUTPUT:



3. Find all employees whose salary is greater than 1400 and working branch is not 'Downtown'

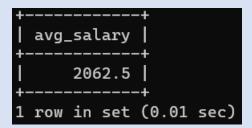
Answer: select * from employee where salary>1400 and branch_name<>'Downtown'; OUTPUT:

+ employee_name	branch_name	++ salary +
Adams Gopal Rao Sato	Perryridge Perryridge Austin Austin	1500 5300 1500 1600
	 	++

4. Calculate the average salary of all employees and show the average salary as "avg_salary"

Answer: select avg(salary) as avg_salary from employee;

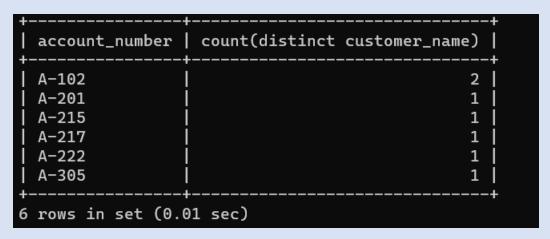
OUTPUT:



5. Calculate the number of customer for each account

Answer: select account_number, count(distinct customer_name) from depositor group by account_number;

OUTPUT:



6. Show all account_number, branch_name and corresponding branch_city

Answer: select account_number, branch.branch_name, branch_city from account,

branch where account.branch_name=branch.branch_name;

OUTPUT:

account_number	branch_name	branch_city
A-101	Downtown	Brooklyn
A-102	Perryridge	Horseneck
A-201	Brighton	Brooklyn
A-215	Mianus	Horseneck
A-217	Brighton	Brooklyn
A-222	Redwood	Palo Alto
A-305	Round Hill	Horseneck
rows in set (0.0	 00 sec)	