

Project :- 1

Name: Pruthvik H Kakadiya

1. I have used MySQL server and MySQL workbench.

2. source codes for SQL create statements:

```
create database Project_1;
```

```
use Project_1;
```

```
create table Employee (
```

```
Fname varchar(15) not null,
```

```
Minit char,
```

```
Lname varchar(15) not null,
```

```
SSN char(9) not null,
```

```
Bdate date,
```

```
Address varchar(30),
```

```
sex char, Salary decimal(10,2),
```

```
Super_SSN char(9),
```

```
Dno int not null, primary key(SSN)
```

```
);
```

```
create table Department (
```

```
Dname varchar(15),
```

```
Dnumber int not null,
```

```
Mgr_SSN char(9) not null,  
MGR_start_date date,  
unique(Dname),  
foreign key(Mgr_SSN) references Employee(SSN),  
primary key(Dnumber)  
);
```

```
create table Project (  
Pname varchar(15) unique,  
Pnumber int not null,  
Plocation varchar(15),  
Dnum int not null,  
Foreign key(Dnum) references Department(Dnumber),  
primary key(Pnumber)  
);
```

```
create table Works_On (  
ESSN char(9) not null,  
Pno int not null,  
Hours decimal(3,1) not null,  
primary key(ESSN,Pno),  
foreign key(ESSN) references Employee(SSN),  
foreign key(Pno) references Project(Pnumber)  
);
```

```
create table Dept_Locations (  
Dnumber int not null,
```

```

Dlocation varchar(15),

primary key(Dnumber,Dlocation),

foreign key(Dnumber) references Department(Dnumber)

);

show tables in Project_1;

```

Here are the screenshots of create statements (employee as an example and list of all the created tables)

The screenshot displays a database management interface with a query editor and a results pane. The query editor shows the following SQL statements:

```

1 create database Project_1;
2 use Project_1;
3 show tables in Project_1;
4
5 create table Employee(Fname varchar(15) not null,Minit char,Lname varchar(15) not null,SSN char(9) not null,
6 Bdate date, Address varchar(30),sex char,Salary decimal(10,2),Super_SSN char(9),Dno int not null,primary key(SSN));
7
8 show tables in Project_1;

```

The results pane shows the output of the queries. The first query, 'show tables in Project_1', returns a single row with the table name 'employee'. The second query, 'show tables in Project_1', returns a single row with the table name 'employee'.

#	Time	Action	Message
1	02:14:31	SELECT * FROM sakila.actor LIMIT 0, 1000	200 row(s) returned
2	02:19:57	create database Project_1	1 row(s) affected
3	02:20:21	use Project_1	0 row(s) affected
4	02:21:07	show tables in Project_1	0 row(s) returned
5	02:26:00	create table Employee(Fname varchar(15) not null,Minit char,Lname varchar(15) not null,SSN char(9) not null,Bd...	0 row(s) affected
6	02:26:19	show tables in Project_1	1 row(s) returned

Create employee screenshot

4. Source code for SQL create statements.

```
select * from project_1.employee;
```

```
select * from project_1.department;
```

```
select * from project_1.dept_locations;
```

```
select * from project_1.project;
```

```
select * from project_1.works_on;
```

Here are the screenshots of the individual tables with data:

Employee Table

```
2
3 • select * from project_1.employee;
4
```






	Fname	Minit	Lname	SSN	Bdate	Address	Sex	Salary	Super_ssn	Dno
▶	Lisa	G	House	101248268	29-JUN-1975	12 Maple St Austin TX	F	85000.00	null	7
	Sunil	D	Gupta	110110110	01-FEB-2001	4312 Bowen Rd Arlington TX	M	80000.00	111111100	3
	Jared	D	James	111111100	10-OCT-1966	123 Peachtr Atlanta GA	M	85000.00	null	6
	Jon	C	Jones	111111101	14-NOV-1967	111 Allgood Atlanta GA	M	45000.00	111111100	6
	Justin	null	Mark	111111102	12-JAN-1966	2342 May Atlanta GA	M	40000.00	111111100	6
	Brad	C	Knight	111111103	13-FEB-1968	176 Main St. Atlanta GA	M	44000.00	111111100	6
	Cameron	D	Thirteen	111422203	04-MAY-2001	22 Univ Blvd Arlington TX	F	80000.00	987987987	4
	Juan	G	Linda	112244668	23-JUN-1965	1210 Apple St Austin TX	F	55000.00	null	9
	Johny	C	Smith	122344668	26-JAN-1972	1221 Diploma Dr. Arlington TX	M	65000.00	999999999	9
	John	B	Smith	123456789	09-Jan-1955	731 Fondren Houston TX	M	30000.00	333445555	5
	Alex	C	Yu	1614905	17-OCT-1980	626 Mary St Dallas TX	M	50000.00	444444400	6
	Debra	T	Hall	202843824	11-MAR-1983	45 NY St Rochester NY	F	30000.00	555555501	6
	Richard	T	Koelbel	214370999	3-APR-1976	50 Elk St Chicago IL	M	85000.00	999999999	4
	Evan	E	Wallis	222222200	16-JAN-1958	134 Pelham Milwaukee WI	M	92000.00	null	7
	Josh	U	Zell	222222201	22-MAY-1954	266 McGrady Milwaukee WI	M	56000.00	222222200	7
	Andru	C	Vile	222222202	21-11-1944	1967 Jordan Milwaukee WI	M	53000.00	222222200	7

Department Table

4

5 • `select * from project_1.department;`

<

Result Grid   Filter Rows: Edit:    Export/In







	Dname	Dnumber	Mgr_SSN	Mgr_start_date
▶	Headquarters	1	888665555	19-JUN-1971
	Networking	3	110110110	15-MAY-2009
	Administration	4	987654321	01-JAN-1985
	Research	5	333445555	22-MAY-1978
	Software	6	111111100	15-MAY-1999
	Hardware	7	444444400	15-MAY-1998
	Sales	8	555555500	01-JAN-1997
	HR	9	112244668	01-FEB-1989
	QA	11	913323708	2-FEB-2010
*	NULL	NULL	NULL	NULL

Project Table

8

9 • `select * from project_1.project;`

<

Result Grid   Filter Rows: Edit:    Export/Import: 






	Pname	Pnumber	Plocation	Dnum
▶	ProductX	1	Bellaire	5
	ProductY	2	Sugarland	5
	ProductZ	3	Houston	5
	EntityAnnot	4	Houston	5
	Computerization	10	Stafford	4
	ConfigMgmt	11	Atlanta	6
	DataMining	13	Sacramento	6
	Reorganization	20	Houston	1
	SearchEngine	22	Arlington	6
	MotherBoard	29	Milwaukee	7
	Newbenefits	30	Stafford	4
	OperatingSystem	61	Sacramento	6
	DatabaseSystems	62	Atlanta	6
	Middleware	63	Atlanta	6
	Advertizing	70	Arlington	9
	InkjetPrinters	91	Milwaukee	7

Works_on Table

10

11 • `select * from project_1.works_on;`

<

Result Grid   Filter Rows: Edit:    Export/







	ESSN	Pno	Hours
▶	101248268	29	10.0
	111111100	61	40.0
	111111101	61	40.0
	111111102	61	40.0
	111111103	61	40.0
	111422203	4	45.0
	112244668	95	40.0
	122344668	3	10.0
	122344668	20	10.0
	122344668	30	25.0
	123456789	1	32.5
	123456789	2	7.5
	1614905	13	18.0
	202843824	11	20.0
	214370999	10	35.0
	???	6?	40.0

Dept_locations Table

6

7 • `select * from project_1.dept_locations;`

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Result Grid   Filter Rows: Edit:    Export/Import: 

	Dnumber	Dlocation
▶	1	Houston
	4	Stafford
	5	Bellaire
	5	Houston
	5	Sugarland
	6	Atlanta
	6	Sacramento
	7	Milwaukee
	8	Chicago
	8	Dallas
	8	Miami
	8	Philadelphia
	8	Seattle
	9	Arlington
	11	Austin
*	NULL	NULL