**create** **database** companydb;

**use** companydb;

**CREATE** **TABLE** Departments (

Code **INTEGER** **PRIMARY** **KEY**,

Name **varchar**(255) **NOT** **NULL** ,

Budget **decimal** **NOT** **NULL**

);

**CREATE** **TABLE** Employees (

SSN **INTEGER** **PRIMARY** **KEY**,

Name **varchar**(255) **NOT** **NULL** ,

LastName **varchar**(255) **NOT** **NULL** ,

Department **INTEGER** **NOT** **NULL** ,

**foreign** **key** (department) **references** Departments(Code)

);

**INSERT** **INTO** Departments(Code,Name,Budget) **VALUES**(14,'IT',65000);

**INSERT** **INTO** Departments(Code,Name,Budget) **VALUES**(37,'Accounting',15000);

**INSERT** **INTO** Departments(Code,Name,Budget) **VALUES**(59,'Human Resources',240000);

**INSERT** **INTO** Departments(Code,Name,Budget) **VALUES**(77,'Research',55000);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('123234877','Michael','Rogers',14);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('152934485','Anand','Manikutty',14);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('222364883','Carol','Smith',37);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('326587417','Joe','Stevens',37);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('332154719','Mary-Anne','Foster',14);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('332569843','George','ODonnell',77);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('546523478','John','Doe',59);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('631231482','David','Smith',77);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('654873219','Zacary','Efron',59);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('745685214','Eric','Goldsmith',59);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('845657245','Elizabeth','Doe',14);

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('845657246','Kumar','Swamy',14);

**select** \* **from** departments;

**select**\***from** employees;

#1

**select** lastname **from** employees;

#2

**select** **distinct**(lastname) **from** employees;

#3

**select** \* **from** employees **where** lastname="Smith";

#4

**select** \* **from** employees **where** lastname="Smith"**or** lastname="Doe";

#5

**select**\* **from** employees **where** department=14;

#6

**select**\* **from** employees **where** department=37 **or** department=77;

#7

**select** \* **from** employees **where** lastname **like** "S%";

#8

**select** **sum**(budget) **from** departments;

**select**\***from** departments;

**select** \* **from** employees;

#9

**select** department,**count**(\*)**from** employees

**group** **by** department;

#10

**select** \* **from** employees **join** departments

**on** departments.code=employees.department;

#11

**select** employees.name,lastname,departments.name,budget **from** employees **join** departments

**on** employees.department=departments.code;

#12

**select** employees.name,lastname,budget **from** employees **join** departments

**on** employees.department=departments.code

**where** budget >60000;

#13

**select** \* **from** departments **where** budget > (**select** **avg**(budget) **from** departments);

#14

**select** departments.name ,**count**(\*) **from** employees **join** departments

**on** employees.department=departments.code

**group** **by** departments.name

**having** **count**(\*) >2;

#15

**select** budget **from** departments

**group** **by** budget

**order** **by** budget **limit** 1,1;

**select** employees.name,lastname **from** employees **join** departments

**on** employees.department=departments.code

**where** departments.budget = (**select** budget **from** departments **order** **by** budget **limit** 1,1);

#16

**INSERT** **INTO** Departments(Code,Name,Budget) **VALUES**(11,'Quality Assurance',40000);

**select** \* **from** departments;

#16

**INSERT** **INTO** Employees(SSN,Name,LastName,Department) **VALUES**('847219811','Mary','Moore',11);

**select**\* **from** employees;

#17

**select** budget - (budget\*0.9) **from** departments;

#18

**update** employees **set** department =14 **where** department = 77;

**select** \* **from** employees;

#19

**delete** **from** employees **where** department =14;

**select** \* **from** employees;

#20

**select** \* **from** departments **where** budget >= 60000;

**select** \* **from** departments;

**select** employees.name,budget **from** employees **join** departments

**on** employees.department=departments.code

**where** budget >= 60000;

**select** code **from** departments **where** budget >=60000;