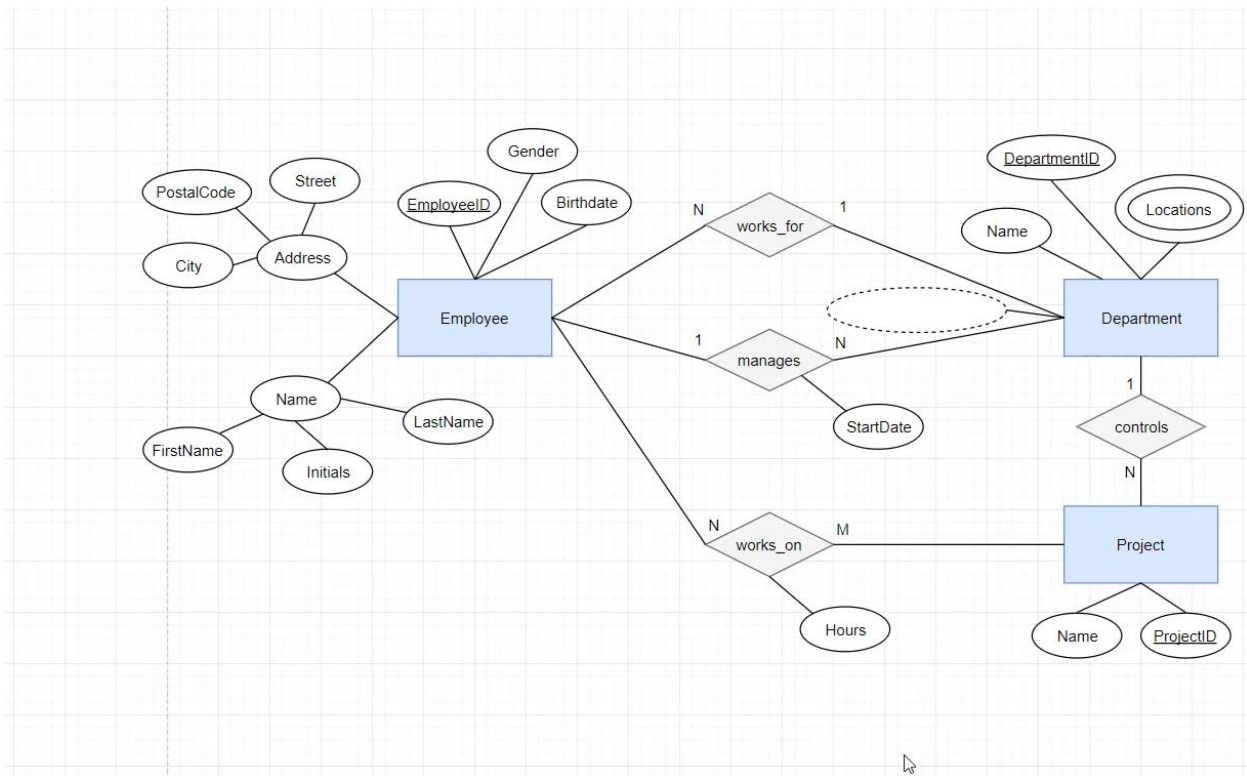


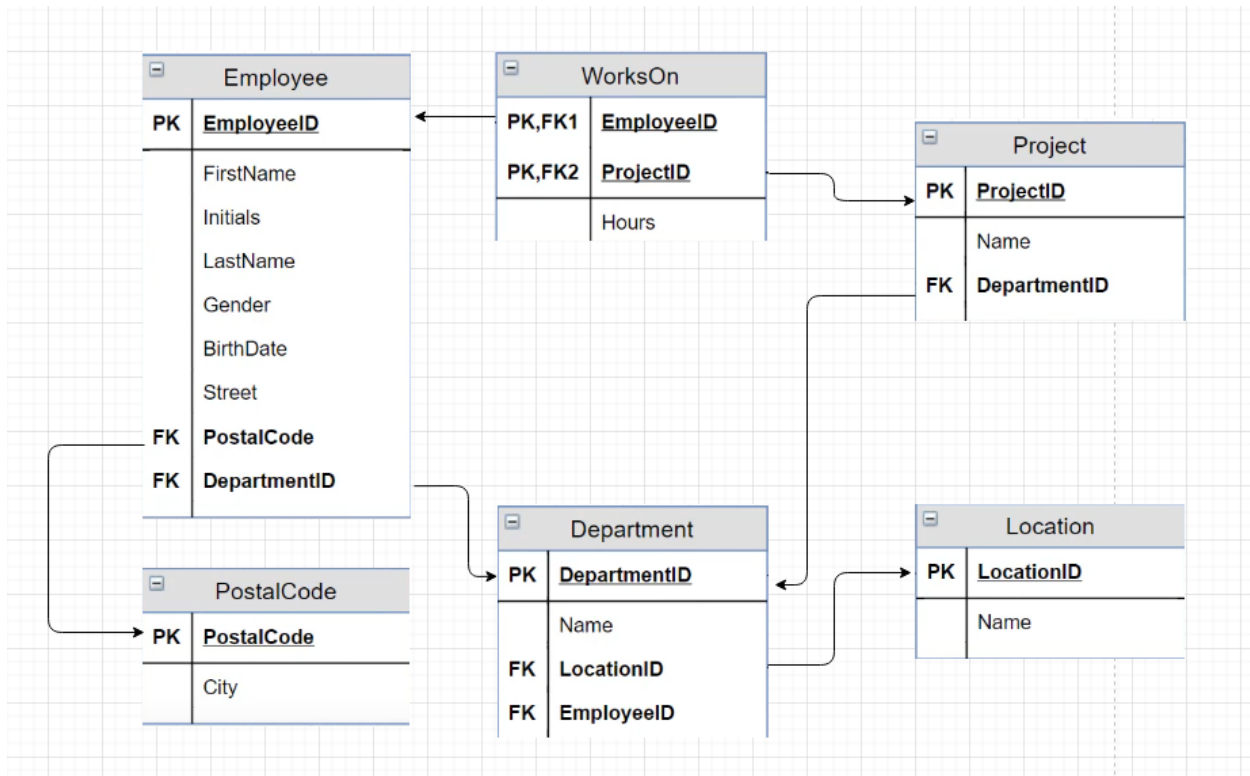
PROIECT

-BAZE DE DATE-

Pornim de la urmatoarea diagrama ER, ne propunem sa construim o diagrama relationala, iar dupa sa cream tabelele in SQL in Oracle.














Dupa transformarea ei in Diagrama relationala si aducerea ei la a 3-a forma normala obtinem urmatoarea diagrama:



Incepem sa cream tabelele in SQL, specificand pentru fiecare intrare tipul de date si specificand cheia primara si constrangerile.

Welcome Page x SCHEMA.sql x

SQL Worksheet | History



Worksheet | Query Builder

```
1 CREATE TABLE Location_IMA(  
2   LocationID int NOT NULL PRIMARY KEY,  
3   Name varchar(255)  
4 );  
5  
6  
7  
8 CREATE TABLE PostalCode_IMA(  
9   PostalCodeID varchar(20) NOT NULL PRIMARY KEY,  
10  City varchar(255)  
11 );  
12  
13  
14  
15 CREATE TABLE Employee_IMA(  
16   EmployeeID int NOT NULL PRIMARY KEY,  
17   FirstName varchar(255) NULL,  
18   Initials varchar(255) NULL,  
19   LastName varchar(255) NULL,  
20   Street varchar(255) NULL,  
21   PostalCode varchar(20) NULL,  
22   Gender varchar(1) NOT NULL,  
23   BirthDate DATE NOT NULL,  
24   DepartmentID int NULL  
25 );  
26  
27  
28  
29  
30  
31 CREATE TABLE Department_IMA(  
32   DepartmentID int NOT NULL PRIMARY KEY,  
33   Name varchar(255),  
34   EmployeeID int NULL,  
35   LocationID int NULL  
36 );  
37  
38  
39  
40 CREATE TABLE Project_IMA(  
41   ProjectID int NOT NULL PRIMARY KEY,  
42   Name varchar(255),  
43   DepartmentID int NULL  
44 );  
45
```

```

48
49 CREATE TABLE WorksON_IMA(
50     EmployeeID int NOT NULL,
51     ProjectID int NOT NULL,
52     Hours float NULL,
53     CONSTRAINT PK_WorksOn Primary KEY (EmployeeID, ProjectID)
54 );
55

```

Dupa specificam cheile externe pentru a corespunde diagramei relationale.

```












55
56
57 ALTER TABLE Employee_IMA
58 ADD CONSTRAINT FK_POSTALCODE
59 FOREIGN KEY(PostalCode) References PostalCode_IMA(PostalCodeID);
60
61
62 ALTER TABLE Employee_IMA
63 ADD CONSTRAINT FK_DEPARTMENT
64 FOREIGN KEY(DepartmentID) References Department_IMA(DepartmentID);
65
66 ALTER TABLE Department_IMA
67 ADD CONSTRAINT FK_LOCATION
68 FOREIGN KEY(LocationID) References Location_IMA(LocationID);
69
70
71 ALTER TABLE Project_IMA
72 ADD CONSTRAINT FK_DEPARTMENT_P
73 FOREIGN KEY(DepartmentID) References Department_IMA(DepartmentID);
74
75
76
77 ALTER TABLE WorksON_IMA
78 ADD CONSTRAINT FK_EMPLOYEE_W
79 FOREIGN KEY(EmployeeID) References Employee_IMA(EmployeeID);
80
81 ALTER TABLE WorksON_IMA
82 ADD CONSTRAINT FK_PROJECT_W
83 FOREIGN KEY(ProjectID) References Project_IMA(ProjectID);
84

```

Odata construite tabelele si relatiile dintre acestea putem sa introducem date in tabele.

Welcome Page x SCHEMA.sql x

SQL Worksheet History













Worksheet Query Builder

```
124
125 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
126 VALUES (1, 'Vanzari', 1);
127 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
128 VALUES (2, 'Suport', 1);
129 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
130 VALUES (3, 'Logistica', 2);
131 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
132 VALUES (4, 'Marketing', 3);
133 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
134 VALUES (5, 'Mentenanata', 4);
135 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
136 VALUES (6, 'Transport', 5);
137
138
139 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
140 VALUES (1, 'Crestere vanzari', 1);
141 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
142 VALUES (2, 'Problem solving', 2);
143 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
144 VALUES (3, 'Sporire eficienta', 3);
145 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
146 VALUES (4, 'Noua strategie', 4);
147 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
148 VALUES (5, 'Innoire aparate', 5);
149 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
150 VALUES (6, 'Optimizare', 6);
151
```

Welcome Page x SCHEMA.sql x

SQL Worksheet History














Worksheet Query Builder

```
86
87 INSERT INTO PostalCode_IMA(PostalCodeId, City)
88 VALUES ('19543', 'Bucuresti');
89 INSERT INTO PostalCode_IMA(PostalCodeId, City)
90 VALUES ('19201', 'Bucuresti');
91 INSERT INTO PostalCode_IMA(PostalCodeId, City)
92 VALUES ('19492', 'Bucuresti');
93 INSERT INTO PostalCode_IMA(PostalCodeId, City)
94 VALUES ('19211', 'Bucuresti');
95 INSERT INTO PostalCode_IMA(PostalCodeId, City)
96 VALUES ('10741', 'Craiova');
97 INSERT INTO PostalCode_IMA(PostalCodeId, City)
98 VALUES ('10402', 'Craiova');
99 INSERT INTO PostalCode_IMA(PostalCodeId, City)
100 VALUES ('15321', 'Oradea');
101 INSERT INTO PostalCode_IMA(PostalCodeId, City)
102 VALUES ('15715', 'Oradea');
103 INSERT INTO PostalCode_IMA(PostalCodeId, City)
104 VALUES ('17566', 'Constanta');
105 INSERT INTO PostalCode_IMA(PostalCodeId, City)
106 VALUES ('17233', 'Constanta');
107 INSERT INTO PostalCode_IMA(PostalCodeId, City)
108 VALUES ('12454', 'Cluj');
109 INSERT INTO PostalCode_IMA(PostalCodeId, City)
110 VALUES ('12813', 'Cluj');
111
112
113 INSERT INTO Location_IMA(LocationId, Name)
114 VALUES ('1', 'Bulevardul Iuliu Maniu, Bucuresti');
115 INSERT INTO Location_IMA(LocationId, Name)
116 VALUES ('2', 'Calea Severin, Craiova');
117 INSERT INTO Location_IMA(LocationId, Name)
118 VALUES ('3', 'Strada Cuza Voda, Oradea');
119 INSERT INTO Location_IMA(LocationId, Name)
120 VALUES ('4', 'Strada Lucian Blaga, Constanta');
121 INSERT INTO Location_IMA(LocationId, Name)
122 VALUES ('5', 'Calea Aurel Suci, Cluj');
123
```

Welcome Page x SCHEMA.sql x

SQL Worksheet History

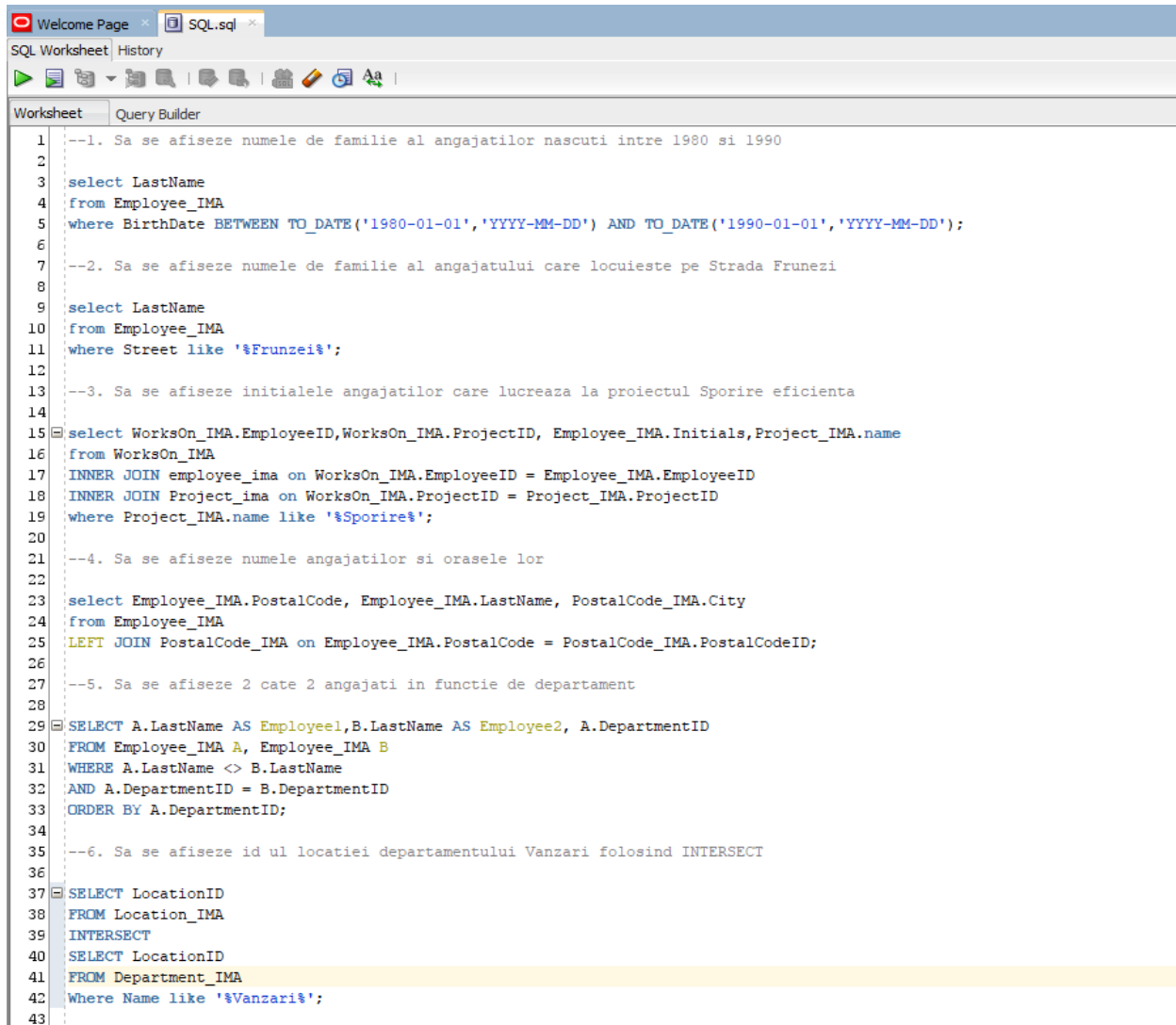
          

Worksheet Query Builder

```
124
125 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
126 VALUES (1, 'Vanzari', 1);
127 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
128 VALUES (2, 'Suport', 1);
129 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
130 VALUES (3, 'Logistica', 2);
131 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
132 VALUES (4, 'Marketing', 3);
133 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
134 VALUES (5, 'Mentenanata', 4);
135 INSERT INTO Department_IMA(DepartmentId, Name, LocationID)
136 VALUES (6, 'Transport', 5);
137
138
139 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
140 VALUES (1, 'Crestere vanzari', 1);
141 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
142 VALUES (2, 'Problem solving', 2);
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144 VALUES (3, 'Sporire eficienta', 3);
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146 VALUES (4, 'Noua strategie', 4);
147 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
148 VALUES (5, 'Innoire aparate', 5);
149 INSERT INTO Project_IMA(ProjectId, Name, DepartmentID)
150 VALUES (6, 'Optimizare', 6);
151
```

```
Welcome Page x SCHEMA.sql x
SQL Worksheet History
Worksheet Query Builder
152
153 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
154 VALUES (1, 'Gheorghe', 'G.P.', 'Popescu', 'Strada Ardealului', '19543', 'M', TO_DATE('1989-12-09','YYYY-MM-DD'), 1);
155 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
156 VALUES (2, 'Ion', 'I.I.', 'Ionescu', 'Strada Vlahuta', '19201', 'M', TO_DATE('1977-06-02','YYYY-MM-DD'), 1);
157 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
158 VALUES (3, 'Andreea', 'A.A.', 'Andronescu', 'Strada Bratianu', '19492', 'F', TO_DATE('1991-01-19','YYYY-MM-DD'), 2);
159 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
160 VALUES (4, 'Marcel', 'M.S.', 'Staicu', 'Strada Fratii Buzesti', '19211', 'M', TO_DATE('1988-02-04','YYYY-MM-DD'), 2);
161 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
162 VALUES (5, 'Ioana', 'I.A.', 'Adam', 'Strada Lebedei', '10741', 'F', TO_DATE('1992-11-06','YYYY-MM-DD'), 3);
163 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
164 VALUES (6, 'Andrei', 'A.F.', 'Filip', 'Strada Gorjului', '10402', 'M', TO_DATE('1990-01-14','YYYY-MM-DD'), 3);
165 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
166 VALUES (7, 'Mihaela', 'M.R.', 'Radu', 'Strada Avram Iancu', '15321', 'F', TO_DATE('1985-10-13','YYYY-MM-DD'), 4);
167 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
168 VALUES (8, 'Matei', 'M.I.', 'Iordache', 'Strada Frunzei', '15715', 'M', TO_DATE('1987-03-22','YYYY-MM-DD'), 4);
169 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
170 VALUES (9, 'Liana', 'L.O.', 'Olteanu', 'Strada Mihai Eminescu', '17566', 'M', TO_DATE('1984-12-05','YYYY-MM-DD'), 5);
171 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
172 VALUES (10, 'Radu', 'R.A.', 'Anton', 'Strada Caragiale', '17233', 'M', TO_DATE('1991-09-27','YYYY-MM-DD'), 5);
173 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
174 VALUES (11, 'Flavia', 'F.M.', 'Munteanu', 'Strada Nichita Stanescu', '12454', 'F', TO_DATE('1993-11-01','YYYY-MM-DD'), 6);
175 INSERT INTO Employee_IMA(EmployeeID, FirstName, Initials, LastName, Street, PostalCode, Gender, BirthDate, DepartmentID)
176 VALUES (12, 'Mircea', 'M.M.', 'Manescu', 'Strada Vrabiei', '12813', 'M', TO_DATE('1995-02-21','YYYY-MM-DD'), 6);
177
178 INSERT INTO WORKSON_IMA
179 VALUES (1,1,500);
180 INSERT INTO WORKSON_IMA
181 VALUES (2,1,300);
182 INSERT INTO WORKSON_IMA
183 VALUES (3,2,400);
184 INSERT INTO WORKSON_IMA
185 VALUES (4,2,500);
186 INSERT INTO WORKSON_IMA
187 VALUES (5,3,1000);
188 INSERT INTO WORKSON_IMA
189 VALUES (6,3,800);
190 INSERT INTO WORKSON_IMA
191 VALUES (7,4,550);
192 INSERT INTO WORKSON_IMA
193 VALUES (8,4,780);
194 INSERT INTO WORKSON_IMA
195 VALUES (9,5,1200);
196 INSERT INTO WORKSON_IMA
197 VALUES (10,5,600);
198 INSERT INTO WORKSON_IMA
199 VALUES (11,6,890);
200 INSERT INTO WORKSON_IMA
201 VALUES (12,6,710);
202
```



Avand datele introduse putem sa facem 15 interogatii pentru a testa functionabilitatea tabelor si a relatiilor dintre acestea.



```
1  --1. Sa se afiseze numele de familie al angajatilor nascuti intre 1980 si 1990
2
3  select LastName
4  from Employee_IMA
5  where BirthDate BETWEEN TO_DATE('1980-01-01','YYYY-MM-DD') AND TO_DATE('1990-01-01','YYYY-MM-DD');
6
7  --2. Sa se afiseze numele de familie al angajatului care locuieste pe Strada Frunzei
8
9  select LastName
10 from Employee_IMA
11 where Street like '%Frunzei%';
12
13 --3. Sa se afiseze initialele angajatilor care lucreaza la proiectul Sporire eficienta
14
15 select WorksOn_IMA.EmployeeID, WorksOn_IMA.ProjectID, Employee_IMA.Initials, Project_IMA.name
16 from WorksOn_IMA
17 INNER JOIN employee_ima on WorksOn_IMA.EmployeeID = Employee_IMA.EmployeeID
18 INNER JOIN Project_ima on WorksOn_IMA.ProjectID = Project_IMA.ProjectID
19 where Project_IMA.name like '%Sporire%';
20
21 --4. Sa se afiseze numele angajatilor si orasele lor
22
23 select Employee_IMA.PostalCode, Employee_IMA.LastName, PostalCode_IMA.City
24 from Employee_IMA
25 LEFT JOIN PostalCode_IMA on Employee_IMA.PostalCode = PostalCode_IMA.PostalCodeID;
26
27 --5. Sa se afiseze 2 cate 2 angajati in functie de departament
28
29 SELECT A.LastName AS Employee1, B.LastName AS Employee2, A.DepartmentID
30 FROM Employee_IMA A, Employee_IMA B
31 WHERE A.LastName <> B.LastName
32 AND A.DepartmentID = B.DepartmentID
33 ORDER BY A.DepartmentID;
34
35 --6. Sa se afiseze id ul locatiei departamentului Vanzari folosind INTERSECT
36
37 SELECT LocationID
38 FROM Location_IMA
39 INTERSECT
40 SELECT LocationID
41 FROM Department_IMA
42 Where Name like '%Vanzari%';
43
```

Welcome Page x SQL.sql x

SQL Worksheet History



Worksheet Query Builder

```
43
44 --7. Sa se afiseze numele angajatilor cu mai mult de 600 de ore lucrate la proiectul Noua Strategie
45
46 select Employee_Ima.LastName, WorksOn_IMA.Hours
47 from WorksOn_IMA
48 INNER JOIN employee_ima on WorksOn_IMA.EmployeeID = Employee_IMA.EmployeeID
49 INNER JOIN Project_ima on WorksOn_IMA.ProjectID = Project_IMA.ProjectID
50 where Project_IMA.name like '%Noua%' and WorksOn_IMA.Hours > 600;
51
52 --8. Sa se afiseze cati angajati se afla in fiecare oras in ordine descrescatoare
53
54 select count(EmployeeID), PostalCode_IMA.City
55 from Employee_IMA
56 JOIN PostalCode_IMA on Employee_IMA.PostalCode = PostalCode_IMA.PostalCodeID
57 Group by PostalCode_IMA.City
58 Order BY Count(EmployeeID) DESC;
59
60 --9. Sa se afiseze numarul mediu de ore muncite la proiectul 'Innoire aparate'
61
62 select AVG(Hours)
63 from WorksOn_IMA
64 JOIN Project_IMA ON WorksOn_IMA.ProjectID = project_ima.projectid
65 where project_ima.name like '%parate%';
66
67 --10. Sa se afiseze locatiile departamentelor in care lucreaza femei
68
69 select Gender, Department_IMA.DepartmentID, Location_IMA.Name
70 from Employee_IMA
71 JOIN Department_IMA ON Employee_IMA.DepartmentID = Department_IMA.DepartmentID
72 JOIN Location_IMA ON Department_IMA.LocationID = Location_IMA.LocationID
73 where Gender = 'F';
74
75 --11. Sa se afiseze orasul angajatilor al carui prenume incepe cu litera A
76
77 select PostalCode_IMA.City
78 from Employee_IMA
79 JOIN PostalCode_IMA ON Employee_IMA.PostalCode = PostalCode_IMA.PostalCodeID
80 where FirstName like 'A%';
81
```

```

81
82 --12. Sa se afiseze numele locatiei unde lucreaza cel putin 3 angajati
83
84 select Count(Employee_IMA.EmployeeID), Location_IMA.Name
85 from Employee_IMA
86 JOIN Department_IMA ON Employee_IMA.DepartmentID = Department_IMA.DepartmentID
87 JOIN Location_IMA ON Department_IMA.LocationID = Location_IMA.LocationID
88 GROUP BY Location_IMA.Name
89 HAVING COUNT(Employee_IMA.EmployeeID) >= 3;
90
91 --13. Sa se afiseze numarul lucrat in total pentru fiecare departament
92
93 select SUM(Hours), Employee_IMA.DepartmentID
94 from WorksOn_IMA
95 JOIN Employee_IMA ON WorksOn_IMA.EmployeeID = Employee_IMA.EmployeeID
96 GROUP BY Employee_IMA.DepartmentID
97 ORDER BY SUM(Hours) DESC;
98
99 --14. Sa se afiseze adresa si numele departamentului in cadrul caruia se desfasoara proiectul Optimizare
100
101 select Department_IMA.Name, Location_IMA.Name
102 from Project_IMA
103 JOIN Department_IMA on Project_IMA.DepartmentID = Department_IMA.DepartmentID
104 JOIN Location_IMA on Department_IMA.LocationID = Location_IMA.LocationID
105 WHERE Project_IMA.Name like '%Optimizare%';
106
107 --15. Sa se afiseze prenumele, initialele, numele de familie si strada unde locuiesc angajatii care lucreaza in departamentul aflat in Craiova
108
109 select FirstName, Initials, LastName, Street
110 from Employee_IMA
111 JOIN Department_IMA on Employee_IMA.DepartmentID = Department_IMA.DepartmentID
112 JOIN Location_IMA on Department_IMA.LocationID = Location_IMA.LocationID
113 WHERE Location_IMA.Name like '%Craiova%';

```

Messages - Log

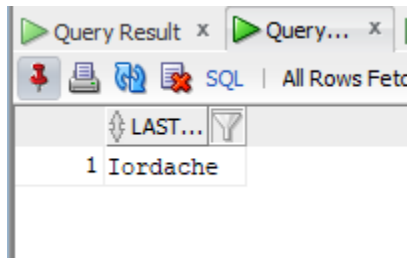
rch

Rezultatele in ordine ale acestor interogatii sunt:

1.

Query Result x	
SQL	
LASTNAME	
1 Popescu	
2 Staicu	
3 Radu	
4 Iordache	
5 Olteanu	

2.



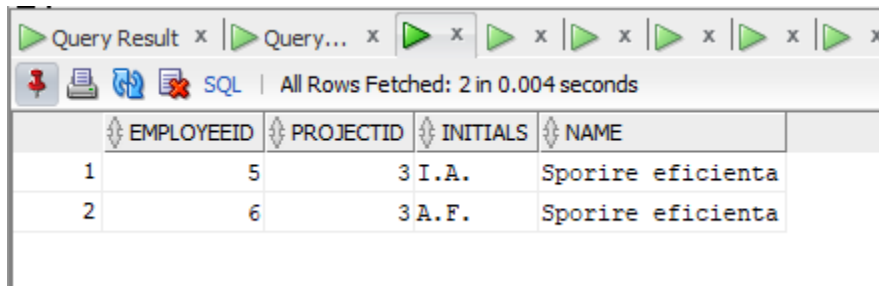
Query Result x Query... x

SQL | All Rows Fetched

LAST...

1 Iordache

3.

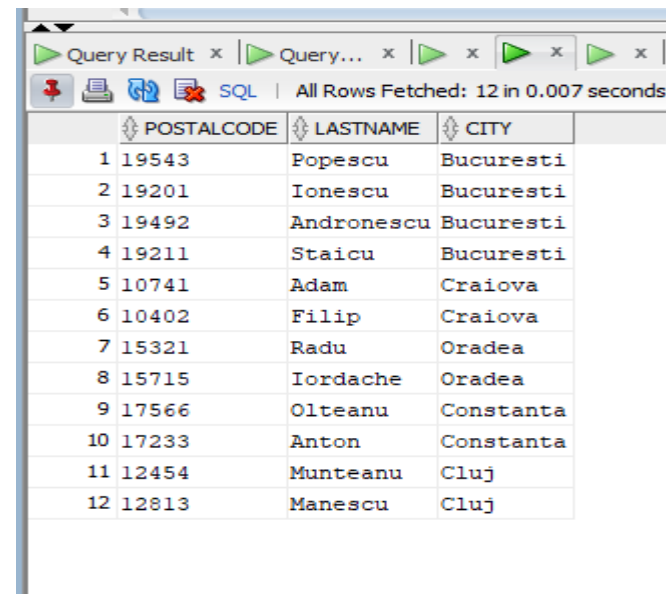


Query Result x Query... x x x x x x x x

SQL | All Rows Fetched: 2 in 0.004 seconds

	EMPLOYEEID	PROJECTID	INITIALS	NAME
1	5	3	I.A.	Sporire eficienta
2	6	3	A.F.	Sporire eficienta

4.

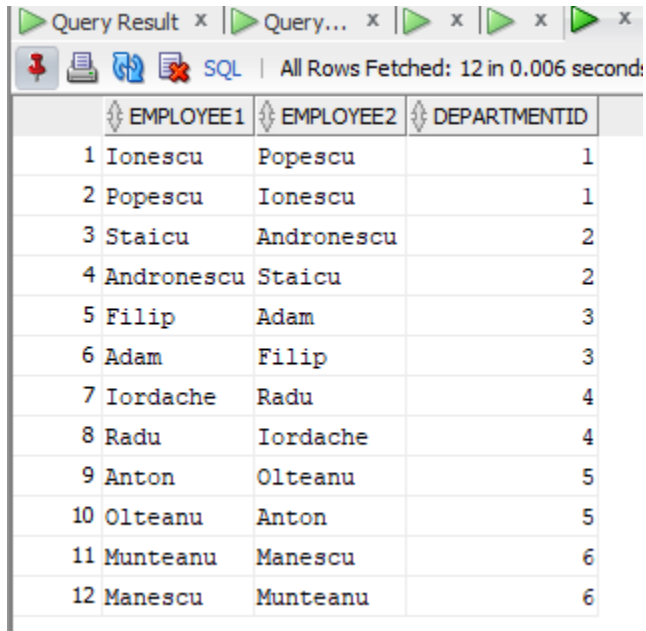


Query Result x Query... x x x x

SQL | All Rows Fetched: 12 in 0.007 seconds

	POSTALCODE	LASTNAME	CITY
1	19543	Popescu	Bucuresti
2	19201	Ionescu	Bucuresti
3	19492	Andronescu	Bucuresti
4	19211	Staicu	Bucuresti
5	10741	Adam	Craiova
6	10402	Filip	Craiova
7	15321	Radu	Oradea
8	15715	Iordache	Oradea
9	17566	Olteanu	Constanta
10	17233	Anton	Constanta
11	12454	Munteanu	Cluj
12	12813	Manescu	Cluj

5.

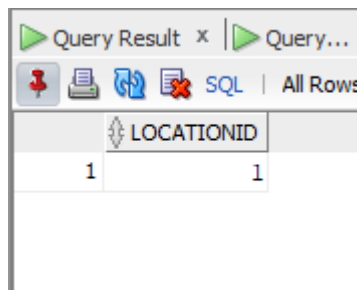


Query Result x | Query... x | x | x | x

SQL | All Rows Fetched: 12 in 0.006 seconds

	EMPLOYEE1	EMPLOYEE2	DEPARTMENTID
1	Ionescu	Popescu	1
2	Popescu	Ionescu	1
3	Staicu	Andronescu	2
4	Andronescu	Staicu	2
5	Filip	Adam	3
6	Adam	Filip	3
7	Iordache	Radu	4
8	Radu	Iordache	4
9	Anton	Olteanu	5
10	Olteanu	Anton	5
11	Munteanu	Manescu	6
12	Manescu	Munteanu	6

6.

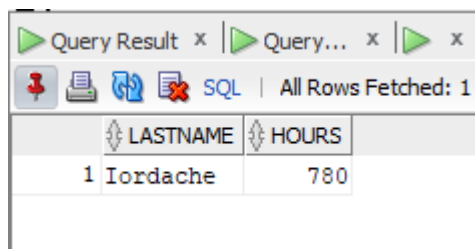


Query Result x | Query...

SQL | All Rows Fetched: 1

LOCATIONID
1

7.

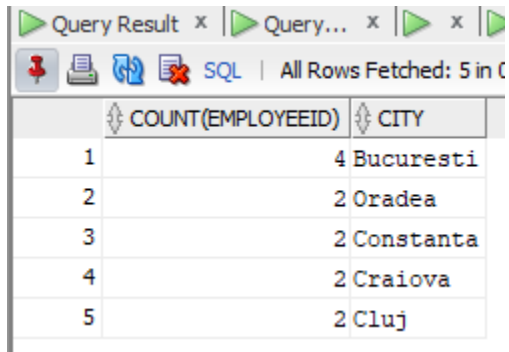


Query Result x | Query... x | x

SQL | All Rows Fetched: 1

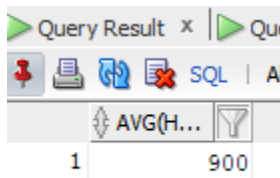
	LASTNAME	HOURS
1	Iordache	780

8.



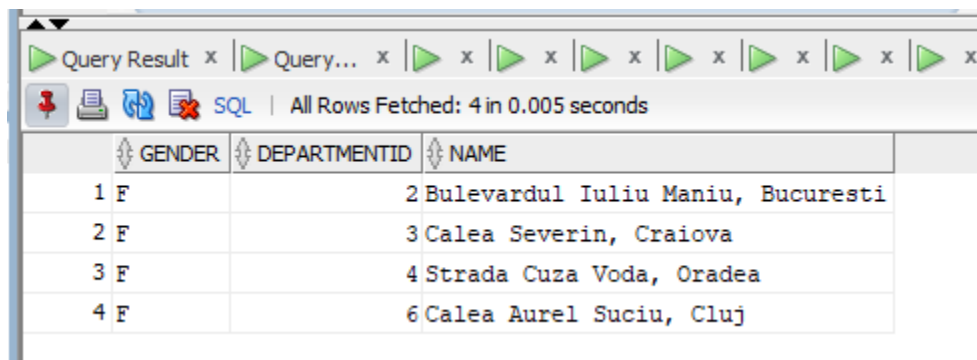
	COUNT(EMPLOYEEID)	CITY
1	4	Bucuresti
2	2	Oradea
3	2	Constanta
4	2	Craiova
5	2	Cluj

9.



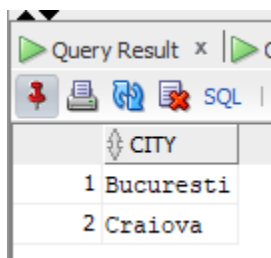
	AVG(H...)	
1	900	

10.



	GENDER	DEPARTMENTID	NAME
1	F	2	Bulevardul Iuliu Maniu, Bucuresti
2	F	3	Calea Severin, Craiova
3	F	4	Strada Cuza Voda, Oradea
4	F	6	Calea Aurel Suciu, Cluj

11.



	CITY
1	Bucuresti
2	Craiova

Query Result x | Query... x | x | x | x | x | x | x | x

SQL | All Rows Fetched: 1 in 0.01 seconds

	COUNT(EMPLOYEE_IMA.EMPLOYEEID)	NAME
1	4	Bulevardul Iuliu Maniu, Bucuresti

	SUM(HOURS)	DEPARTMENTID
1	1800	5
2	1800	3
3	1600	6
4	1330	4
5	900	2
6	800	1

Query Result x Query... x x x x

SQL | All Rows Fetched: 1 in 0.006 second

	NAME	NAME_1
1	Transport	Calea Aurel Suci, Cluj

Query Result x | Query... x | x | x | x |

SQL | All Rows Fetched: 2 in 0.005 seconds

	FIRSTNAME	INITIALS	LASTNAME	STREET
1	Ioana	I.A.	Adam	Strada Lebedei
2	Andrei	A.F.	Filip	Strada Gorjului

Codurile au fost rulate de mine pe serverul extern folosind userul si parola celor de la grupa 211:

SQL	Connection	TimeStamp	Type	Executed	Duration(se...
select FirstName, Initials, LastName, Streetfrom Employee_IMAJJOIN De...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
select Department_IMA.Name, Location_IMA.Namefrom Project_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.006
select SUM(Hours),Employee_IMA.DepartmentIDfrom WorksON_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
select Count(Employee_IMA.EmployeeID),Location_IMA.Namefrom Emp...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.01
select PostalCode_IMA.Cityfrom Employee_IMAJJOIN PostalCode_IMA ...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
select Gender, Department_IMA.DepartmentID, Location_IMA.Namefro...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
select AVG(Hours)from WorksOn_IMAJJOIN Project_IMA ON WorksOn_I...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.006
select count(EmployeeID),PostalCode_IMA.Cityfrom Employee_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.007
select Employee_IMa.LastName,WorksOn_IMA.Hoursfrom WorksOn_IM...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
SELECT LocationIDFROM Location_IMAINTERSECTSELECT LocationIDFR...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.005
SELECT A.LastName AS Employee1,B.LastName AS Employee2, A.Depa...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.006
select Employee_IMA.PostalCode, Employee_IMA.LastName, PostalCod...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.007
select WorksOn_IMA.EmployeeID,WorksOn_IMA.ProjectID, Employee_...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.004
select LastNamefrom Employee_IMAwhere Street like '%Frunzei%';	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.004
select LastNamefrom Employee_IMAwhere BirthDate BETWEEN TO_DAT...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.008
select Department_IMA.Name, Location_IMA.Namefrom Project_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.024
select SUM(Hours),Employee_IMA.DepartmentIDfrom WorksON_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.009
select SUM(Hours),Employee_IMA.DepartmentIDfrom WorksON_IMAJOI...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.01
select Hours,EmployeeIDfrom WorksON_IMA;	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.011
select Sum(Hours)from WorksON_IMA;	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.008
select Count(Employee_IMA.EmployeeID),Location_IMA.Namefrom Emp...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.009
select AVG(Hours)from WorksOn_IMAJJOIN Project_IMA ON WorksOn_I...	Marinas Ionut Vlad	19-SEP-20 1...	SQL	1	0.012
select AVG(Hours)from WorksOn_IMA;	Marinas Ionut Vlad	19-SEP-20 1...	SQL	1	0.093
select Employee_IMa.LastName,WorksOn_IMA.Hoursfrom WorksOn_IM...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.006
select WorksOn_IMA.EmployeeID,Employee_IMa.LastName,WorksOn_I...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.018
select WorksOn_IMA.EmployeeID,Employee_IMa.LastName,WorksOn_I...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.01
SELECT LocationIDFROM Department_IMAWhere Name like '%Vanzari...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.005
SELECT LocationID,department_ima.nameFROM Department_IMAWher...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.007
SELECT LocationIDFROM Department_IMAWhere Name like '%Vagfdgdf...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.012
SELECT LocationIDFROM Department_IMAUNIONSELECT LocationIDFR...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.01
SELECT UNIQUE A.LastName AS Employee1,B.LastName AS Employee2...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.008
file:/C:/Users/Vlad/Pictures/Marinas Ionut Vlad Interogari.sql	Marinas Ionut Vlad	19-SEP-20 0...	Script	1	0.0
select WorksOn_IMA.EmployeeID,WorksOn_IMA.ProjectID, Employee_...	Marinas Ionut Vlad	19-SEP-20 0...	SQL	2	0.014
select employeeeid from workson_ima where employeeeid = 5;	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.005
file:/C:/Users/Vlad/Pictures/Marinas Ionut Vlad1.sql	Marinas Ionut Vlad	19-SEP-20 0...	Script	157	0.02
select * from workson_ima;	Marinas Ionut Vlad Interogari	19-SEP-20 0...	SQL	2	0.005
select LastNamefrom Employee_IMAwhere Street like '%Frunzei%';	Marinas Ionut Vlad Interogari	19-SEP-20 0...	SQL	1	0.008
select LastNamefrom Employee_IMAwhere BirthDate BETWEEN TO_DAT...	Marinas Ionut Vlad Interogari	19-SEP-20 0...	SQL	2	0.006
select LastNamefrom Employee_IMAwhere BirthDate BETWEEN TO_DAT...	Marinas Ionut Vlad Interogari	19-SEP-20 0...	SQL	1	0.007
select * from employee_ima;	Marinas Ionut Vlad	19-SEP-20 0...	SQL	3	0.005
select * from project_ima;	Marinas Ionut Vlad	19-SEP-20 0...	SQL	1	0.008
ALTER TABLE WorksON_IMAADD FOREIGN KEY(ProjectID) References ...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.021
ALTER TABLE WorksON_IMAADD FOREIGN KEY(EmployeeID) Reference...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.021
ALTER TABLE Project_IMAADD FOREIGN KEY(DepartmentID) Reference...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.02
ALTER TABLE Department_IMAADD FOREIGN KEY(EmployeeID) Refere...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.021
ALTER TABLE Employee_IMAADD FOREIGN KEY(DepartmentID) Refere...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.021
ALTER TABLE Employee_IMAADD FOREIGN KEY(PostalCode) Reference...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.168
CREATE TABLE WorksON_IMA(EmployeeID int NOT NULL, ProjectID...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.021
CREATE TABLE Project_IMA(ProjectID int NOT NULL PRIMARY KEY, ...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.055
CREATE TABLE Department_IMA(DepartmentID int NOT NULL PRIMA...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.021
CREATE TABLE Employee_IMA(EmployeeID int NOT NULL PRIMARY K...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.023
drop table project_ima;	Marinas Ionut Vlad	18-SEP-20 0...	SQL	1	0.02
CREATE TABLE PostalCode_IMA(PostalCodeID varchar(20) NOT NULL P...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.038
CREATE TABLE Location_IMA(LocationID int NOT NULL PRIMARY KEY,N...	Marinas Ionut Vlad	18-SEP-20 0...	SQL	2	0.029
DROP TABLE WorksON_IMA;	Marinas Ionut Vlad	18-SEP-20 1...	SQL	1	0.02

Pentru realizarea acestui proiect m-am folosit de :

- materialele de la curs si laborator
- videoclipuri ajutatoare ale canalului de youtube
https://www.youtube.com/channel/UCu6s19IQOWBtsK_hS9kJgKQ
- videoclipul tutorial <https://www.youtube.com/watch?v=XqIk2PwP0To>
- tutorial de pe site-ul <https://www.w3schools.com/sql/default.asp>