

מיני פרויקט בסיסי נתונים

NSO



תוכן עניינים

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תיאור הארגון

חברת NSO תספק שירותי חקירה ומעקב מתקדמים, ומנפיקה דוחות מעקב על הממצאים. לחברה לקוחות רבים בארץ ובחו"ל ובניהן משטרת ישראל, וממשלות שונות ברחבי העולם.

בחברה קיימים מחלקות, שמורכבות מצוותים, הפזורות ברחבי הארץ, עובדי החברה משויכים לצוותים האחראים על פיתוח ותחזוקת התוכנות המוצעות על ידי החברה.

פירוט ישויות

Location: הישות מייצגת מיקום פיזי

מדינה	Country
עיר	City
כתובת	Address
מזהה מיקום	LocationID

Person: הישות מייצגת אדם כלשהו

מזהה אדם	PersonID
שם	Name
מספר טלפון	Phone

Worker: (יורשת מ Person) הישות מייצגת עובד בחברה

משכורת	Salary
ותק	Seniority

Target: (יורשת מ Person) הישות מייצגת מטרה שעליה התבצע שימוש בתוכנת רוג'לה כזו או אחרת

פירוט תיק מטרה	Dossier
----------------	---------

Department: הישות מייצגת מחלקה בחברה

מזהה מחלקה	DeptID
שם מחלקה	DeptName

Team: הישות מייצגת צוות בחברה

מזהה צוות	TeamID
שם צוות	TeamName

Project : הישות מייצגת פרויקט בחברה

מזהה פרויקט	ProjectID
שם פרויקט	ProjectName
דדליין	DeadLine

Spyware : הישות מייצגת תוכנת ריגול

מזהה תוכנה	SpywareID
שם תוכנה	SpywareName
רמת סיווג	ClearenceLevel
סוג תכנה	Type
מערכת ההפעלה של המטרה	Platform

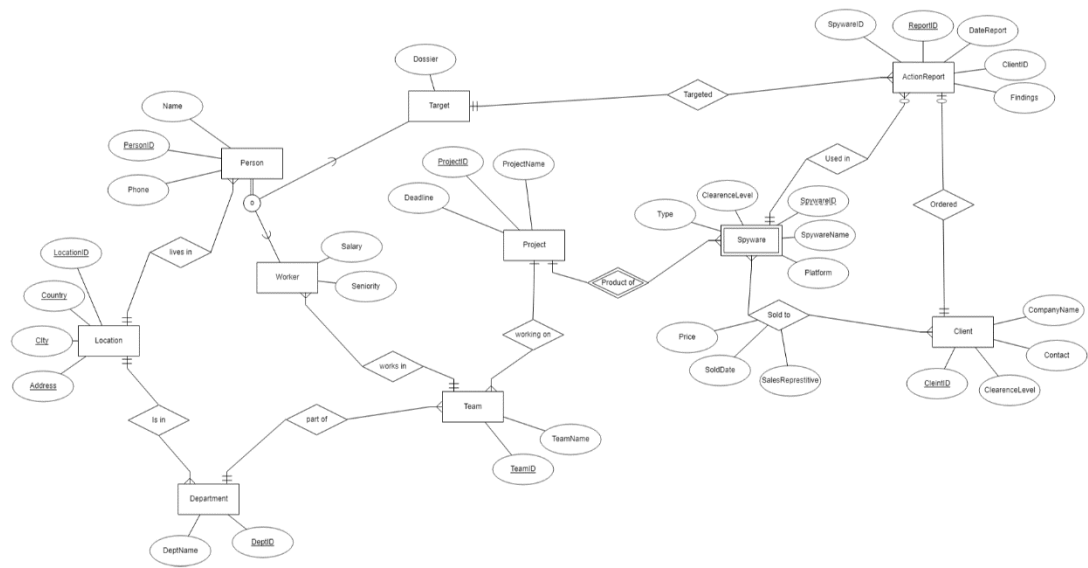
Client : הישות מייצגת לקוח אשר צורך את שירותי החברה

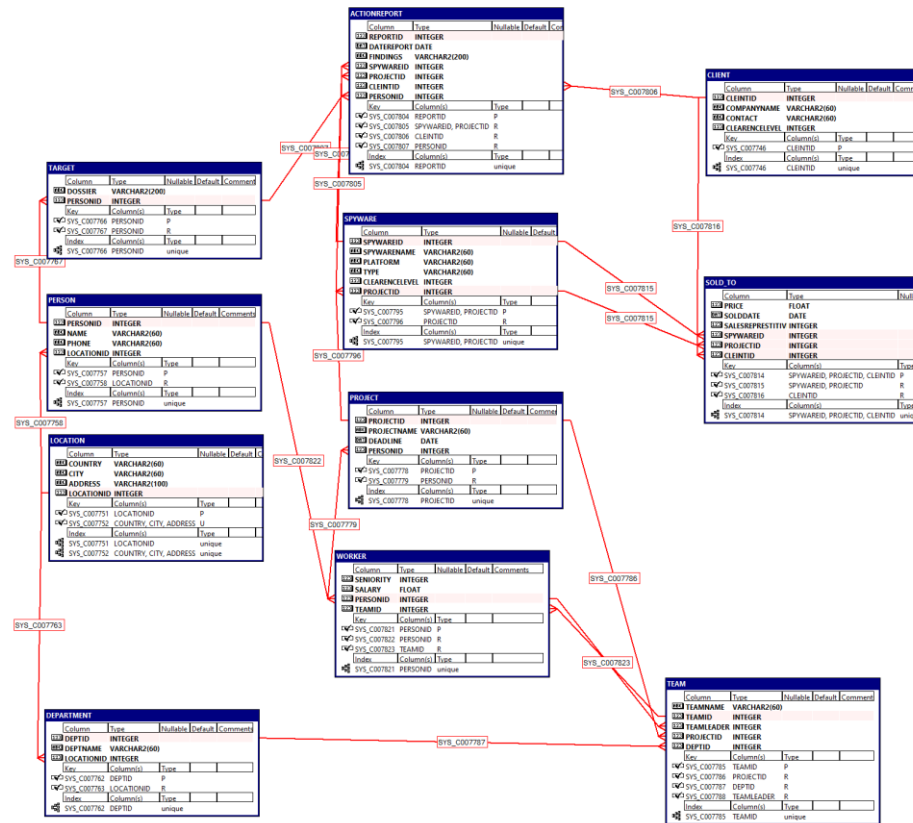
מזהה לקוח	ClientID
שם הלקוח (החברה הצורכת או האגרון אליו משוייך)	CompanyName
רמת סיווג הלקוח	ClearenceLevel
מספר טלפון של איש הקשר	Contact

ActionReport : הישות מייצגת דוח המונפק לאחר שימוש בתכנה על מטרה

מזהה דוח	ReportID
מזהה התכנה שבה השתמשו	SpywareID
מזהה מטרה	TargetID
תאריך הנפקת הדוח	DateReport
מזהה לקוח שצרך את השירות	ClientID
תיאור/ממצאים	Findings

תרשים ERD





שאלות פשוטות

CREATE שאלת

```
CREATE TABLE Location
(
    Country VARCHAR(60) NOT NULL,
    City VARCHAR(60) NOT NULL,
    Address VARCHAR(100) NOT NULL,
    LocationID INT NOT NULL,
    PRIMARY KEY (LocationID),
    UNIQUE (Country, City, Address)
);

CREATE TABLE Person
(
    PersonID INT NOT NULL,
    Name VARCHAR(60) NOT NULL,
    Phone VARCHAR(60) NOT NULL,
    LocationID INT NOT NULL,
    PRIMARY KEY (PersonID),
    FOREIGN KEY (LocationID) REFERENCES Location(LocationID)
);

CREATE TABLE Target
(
    Dossier VARCHAR(200) NOT NULL,
    PersonID INT NOT NULL,
    PRIMARY KEY (PersonID),
    FOREIGN KEY (PersonID) REFERENCES Person(PersonID)
);

CREATE TABLE Worker
(
    Seniority INT NOT NULL,
    Salary FLOAT NOT NULL,
    PersonID INT NOT NULL,
    TeamID INT NOT NULL,
    PRIMARY KEY (PersonID),
    FOREIGN KEY (PersonID) REFERENCES Person(PersonID),
    FOREIGN KEY (TeamID) REFERENCES Team(TeamID)
);
```

```
> █ CLIENT
> █ SPYWARE
> █ LOCATION
> █ SOLD_TO
> █ PERSON
> █ DEPARTMENT
> █ TARGET
> █ ACTIONREPORT
> █ WORKER
> █ PORJECT
> █ TEAM
```

שאלתת DROP

```
DROP TABLE TARGET;
```

```
DROP TABLE WORKER;
```

```
DROP TABLE ACTIONREPORT;
```

```
DROP TABLE CLIENT;
```

(כמובן שנעשתה החזרה של הטבלאות לאחר השאלתה)

שאלתת INSERT

(חלק מן השאלות קיימות הרבה יותר מ 10)

```
INSERT INTO Location
VALUES ('Japan','Tokyo', 'Jinfoo 234' );

INSERT INTO Location
VALUES ('Israel','Tel-Aviv', 'Dizingof 99' );

INSERT INTO Location
VALUES ('Israel','Herzlyia', 'Steel Wheels 22');

INSERT INTO Location
VALUES ('Israel','Raanana', 'Industry 25' );


INSERT INTO Person
VALUES (1,'Moshe Cohen', '0502433121', 'Israel','Jerusalem','Kiryat Yovel 23' );

INSERT INTO Person
VALUES (2,'Avi Levi', '0527675898', 'Israel','Haifa', 'Givhat Mordechai 1' );

INSERT INTO Person
VALUES (3,'Ron Danon', '0543732665', 'Israel','Jerusalem', 'Har Choma 31' );

INSERT INTO Person
VALUES (4,'Dana Ben-Lulu', '0506455123', 'Israel','Tel-Aviv', 'Dizingof 22' );

INSERT INTO Person
VALUES (5,'Agabu Bombi', '9431234536212', 'somalia','bana-east', 'Ada' );

INSERT INTO Person
VALUES (6,'Jack Jon', '442457982371', 'Rusia','Moscow', 'Komovitch 12' );

INSERT INTO Person
VALUES (7,'Lu Phan-ing', '223243562351', 'Japan','Tokyo', 'Jinfoo 234' );

INSERT INTO Person
VALUES (8,'Yossi Ofer', '0531446239', 'Israel','Tel-Aviv', 'Dizingof 99' );
```

שאיילתת DELETE

(הנתונים הוחזרו לאחר הפעלת השאילתה)

```
DELETE FROM actionreport where reportid = 1;

DELETE FROM person where name = 'Moshe Cohen';

DELETE FROM worker where seniority = 'senior';

DELETE FROM worker where salary = 20700;
```

שאיילתת UPDATE

```
UPDATE Person
SET phone = '0506544121'
WHERE name = 'Moshe Cohen';

UPDATE worker
SET salary = 22345
WHERE personID = 1;

UPDATE project
SET projectname = 'project zuckerberg'
WHERE projectid = 2;

UPDATE sold_to
SET price = 310200
WHERE spywareid = 1 and cleintid=1;
```

שאלתת SELECT

(מצורף תמונה של התכולה)

```
select * from person
```

	PERSONID	NAME	PHONE	COUNTRY	CITY	ADDRESS
1	1	Moshe Cohen	0506544121	Israel	Jerusalem	Kiryat Yovel 23
2	2	Avi Levi	0527675898	Israel	Haifa	Givhat Mordechai 1
3	3	Ron Danon	0543732665	Israel	Jerusalem	Har Choma 31
4	4	Dana Ben-Lulu	0506455123	Israel	Tel-Aviv	Dizingof 22
5	5	Agabu Bombi	9431234536212	somalia	bana-east	Ada
6	6	Jack Jon	442457982371	Rusia	Moscow	Komovitch 12
7	7	Lu Phan-ing	223243562351	Japan	Tokyo	Jinfoo 234
8	8	Yossi Ofer	0531446239	Israel	Tel-Aviv	Dizingof 99

```
select * from worker
```

	SENIORITY	SALARY	PERSONID	TEAMID
1	senior	22345	1	2
2	Middle management	20700	2	2
3	Flevel management	15300	3	1
4	Middle management	22700	4	1

```
select * from spyware
```

	SPYWAREID	PROJECTID	SPYWARENAME	PLATFORM	TYPE	CLEARANCELEVEL
1	1	1	Pegasus-a	andorid	remote trojan horse	3
2	2	2	Pegasus-iso	iso	remote trojan horse	3
3	3	3	zuckernerg 2000	windows	key logger	1
4	4	4	bill form microsoft support	windows	cryptominer	1


```
select * from client
```

	CLEINTID	COMPANYNAME	CONTACT	CLEARANCELEVEL
1	1	Israel Police	Roni Alsheikh	3
2	2	FBI	James Buttler	2
3	3	Facebook	zuck	1
4	4	FSB	vladdy P	1

שלב ב

הכנסת נתונים:


Data generator oracle

Data Generator X  select * from location

PERSON

Owner	Table	Number of records
SYSTEM	PERSON	20000

Name	Type	Size	Data	Master
PERSONID	NUMBER			...
NAME	VARCHAR2	60	FirstName + ' ' + LastName	...
PHONE	VARCHAR2	60	[000]-[000]-[000]	...
LOCATIONID	NUMBER		List(select locationid from location)	...
*				...

Data Generator X  select * from location

```

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (1, 'Lee LuPone', '321-028-323', 191);

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (2, 'Barry Oakenfold', '659-507-274', 26);

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (3, 'Danni Iglesias', '871-432-245', 181);

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (4, 'Ronnie Nelligan', '742-280-462', 358);

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (5, 'Charles Roberts', '396-194-754', 58);

insert into SYSTEM.PERSON (PERSONID, NAME, PHONE, LOCATIONID)
values (6, 'Alfred Hawke', '951-656-668', 192);

```

SYSTEM@XE [19:09:13] 20000 records generated in 13.422 seconds

Data Generator select * from person X

SQL Output Statistics

```
select * from person
```

PERSONID NAME PHONE LOCATIONID

1	Jeroen Whitwam	462-159-712	410
2	Owen Clark	502-651-574	110
3	Thin Kenoly	781-363-757	430
4	Tzi Farrell	167-854-394	156
5	LeVar Coe	806-942-291	179
6	Olympia Hersh	858-404-739	320
7	James Wolf	868-206-531	66
8	Kylie Ramirez	818-914-837	335
9	Brothers Grier	660-608-375	38
10	Kazem Dysart	928-332-622	326
11	Jesse Elliott	651-211-575	11
12	Rhett Northam	896-654-858	320
13	Manu Blossoms	904-041-967	215
14	Wendy Irving	066-837-674	175

Import csv

TEAM.csv

Data from Textfile | Data to Oracle

Configuration

General

Fieldcount
4

☒ End at line-end
☒ Name in header
☒ Skip empty lines

Quote character
"

Comment line

Import lines
1 ..

Field1 (+0 .. ",") TeamName
Field2 (+0 .. ",") TeamID
Field3 (+0 .. ",") ProjectID
Field4 (+0 .. ",") DeptID

Field Start
☐ Relative position
☐ Absolute position
☐ Character

Field End
☐ Length
☐ Character

Filter

Result Preview

TeamName	TeamID	ProjectID	DeptID
wcreech0	1	1	1
holenov1	2	1	1
dgunthorpe2	3	1	1

Import | Import to Script | Close | SYSTEM@XE | TEAM.csv loaded, 10 KB | Help

TEAM.csv

Data from Textfile | Data to Oracle

General

Owner
SYSTEM

Table
TEAM

Commit every...
100

☒ Overwrite duplicates
☐ Ignore duplicates

☐ Delete records
☐ Truncate table

Initializing Script

Finalizing Script

Fields

Field1 TeamName -> TEAMNAME
Field2 TeamID -> TEAMID
Field3 ProjectID -> PROJECTID
Field4 DeptID -> DEPTID

Field

Fieldtype

Create SQL

Result Preview

TeamName	TeamID	ProjectID	DeptID
pverrillu	31	11	11
kdalbyv	32	11	11
iembyw	33	11	11

Import | Import to Script | Close | SYSTEM@XE | TEAM.csv loaded, 10 KB | Help

דַרְר mockaroo

mockaroo

SCHEMAS¹ DATASETS¹ MOCK APIS SCENARIOS PROJECTS

Preview

TABLE RAW

Country	City	Address	LocationID
Costa Rica	Turrialba	North	1
China	Guhua	Golf Course	2
Nigeria	Riti	Oneill	3
Indonesia	Cikayas	Kings	4
Russia	Tarbagatay	Dexter	5
Tanzania	Kisasa	Derek	6
China	Lianfa	Mosinee	7
Thailand	Sa Bot	Monument	8
Colombia	Villela	Quincy	9
China	Yanchuan	Clement	10

showing first 100 rows

Rows: 500

DOWNLOAD DATA

CLOSE

שאלות מורכבות:

(נתון תצלום של פחות מ-40 שורות לשם הדוגמא, למרות שבכולם יש לפחות 40 +)

שאלתה 1

תיאור: עובד שלא שייך למחלקה (דרך צוות) במדינה שהוא גר בה.

```
select distinct wr.personid,
               wr.name,
               wr.country,
               dept.deptname
from (select wr1.personid,
             wr1.name,
             lc1.country
      from worker wr1,
           person pr1,
           location lc1
      where wr1.personid = pr1.personid
            and pr1.locationid = lc1.locationid) wr,
     (select wr2.personid,
             lc2.country,
             dp.deptname
      from worker wr2,
           team,
           location lc2,
           department dp
      where wr2.teamid = team.teamid
            and team.deptid = dp.deptid
            and dp.locationid = lc2.locationid) dept
where wr.personid = dept.personid
     and wr.country <> dept.country
order by name
```

	PERSONID	NAME	COUNTRY	DEPTNAME
1	1613	Aaron Bancroft	Thailand	Product Management
2	1667	Adina Crewson	Serbia	Research and Development
3	1319	Adina Garber	New Zealand	Marketing
4	1087	Adrien Rydell	China	Accounting
5	1879	Ahmad Stiller	Vietnam	Business Development
6	1547	Aida Merchant	Croatia	Services
7	1897	Alana DeLuise	China	Product Management
8	1248	Alana Horton	Indonesia	Legal
9	1442	Alana Pleasence	Ukraine	Sales
10	1974	Alannah Farrell	Philippines	Engineering

שאלתה 2

תיאור: כל מטרה שהלקוח שריגל אחריו עם clearance פחות מ-5 והפלטפורמה שלה הכי נפוצה

```
select distinct personid
      ,name,
      spywareid
from person natural join target
      natural join actionreport
      natural join client
where client.clearancelevel<5
      and actionreport.spywareid in(select spywareid
                                     from spyware
                                     where spyware.platform in(select platform
                                                                from spyware
                                                                group by platform
                                                                having count(platform) = (select max(count(platform))
                                                                from spyware
                                                                group by platform)
                                     )
      )
```

	PERSONID	NAME		SPYWAREID
1	46	Gordon Collins	...	46
2	89	Carol Oates	...	133
3	95	Alfred Barkin	...	142
4	97	Jason Harris	...	97
5	148	Herbie Pleasure	...	148
6	169	Kirk Kline	...	169
7	229	Alfie Buscemi	...	229
8	246	Gloria Boyle	...	246
9	264	Eric Armatrading	...	356
10	298	Taylor Margolyes	...	407

שאיילתה 3

תיאור: כל המחלקות שייצרו את התוכנות שהתאריך שלהם תקין לעומת הדוח וגם יש להם הצלחה של למעלה מ-30 מכירות.

```
select distinct deptid,deptname
from spyware sp,
    (select spyw.spywareid,
        department.deptid,
        department.deptname
        from department,
        project,team,
        spyware spyw
        where department.deptid = team.deptid
        and team.projectid = project.projectid
        and project.projectid = spyw.projectid) spyw
where sp.spywareid = spyw.spywareid
and exists(select *
    from actionreport natural join project
    where projectid=sp.projectid
    and deadline>actionreport.datereport)
and 30<(select count(*)
    from sold_to s
    where sp.spywareid = s.spywareid);
```

	DEPTID	DEPTNAME	
1	27	Human Resources	...
2	40	Accounting	...
3	89	Product Management	...
4	52	Engineering	...
5	61	Support	...
6	76	Training	...
7	106	Services	...
8	107	Services	...
9	113	Product Management	...
10	132	Services	...

שאלתה 4

תיאור: רשימה ממוינת של המחלקות על פי סדר גודל סכום המכירות הפרויקטים שלהם.

```
select distinct department.deptid
                ,department.deptname
                ,sum(price) sumPrice
from team
    ,department
    , sold_to
where team.projectid = sold_to.projectid
      and team.deptid = department.deptid
group by department.deptid,
          department.deptname
order by sumPrice desc
```

	DEPTID	DEPTNAME	SUMPRICE
1	1	Research and Development	577535388
2	3	Sales	512529513
3	2	Services	505289364
4	4	Training	497384580
5	5	Accounting	458865411
6	6	Training	442559019
7	7	Support	420466557
8	9	Accounting	416338371
9	10	Support	394558191
10	8	Services	393992343

שאלתה 5

תיאור: כל האנשים שמקבלים משכורת יותר גבוהה מאחרים עם ותק יותר גבוה, ועל פי ארצות

```
select distinct wr1.name,
               wr1.personid,
               wr1.salary,
               wr1.seniority,
               wr2.name,
               wr2.personid,
               wr2.salary,
               wr2.seniority
from (select personid,
             name,
             salary,
             seniority,
             country
      from worker natural join person
           natural join location) wr1,
     (select personid,
             name,
             salary,
             seniority,
             country
      from worker natural join person
           natural join location) wr2
where wr1.personid <> wr2.personid
      and wr1.salary > wr2.salary
      and wr1.seniority < wr2.seniority
      and wr1.country = wr2.country
order by wr1.name, wr2.name
```

	NAME	PERSONID	SALARY	SENIORITY	NAME	PERSONID	SALARY	SENIORITY
1	Aaron Bancroft	1613	21997.41	13	Garland Firth	1347	13922.52	17
2	Aaron Bancroft	1613	21997.41	13	Maggie Craddock	1890	12123.11	20
3	Aaron Bancroft	1613	21997.41	13	Tori Cotton	1558	14297.17	18
4	Adina Crewson	1667	20844.01	7	Kyra Baldwin	1796	13285.4	16
5	Ahmad Stiller	1879	42154.13	9	Kasey Fisher	1900	29158.64	30
6	Ahmad Stiller	1879	42154.13	9	Kathy Humphrey	1233	12650.98	23
7	Ahmad Stiller	1879	42154.13	9	Leelee Wolf	1350	40624.8	20
8	Ahmad Stiller	1879	42154.13	9	Lili Choice	1973	16689.81	13
9	Ahmad Stiller	1879	42154.13	9	Moe Hayek	1294	8984.01	24
10	Aida Merchant	1547	25101.18	7	Allison Rubinek	1625	18367.77	25

שאלתה 6

תיאור: 40 הלקוחות ששילמו הכי הרבה. בשנה האחרונה.

```
select *
from (select distinct
      cl.clientid,
      cl.companyname,
      sum(price) sumPrice
    from sold_to st,
      client cl
   where st.clientid = cl.clientid
        and st.solddate between TO_DATE ('01/01/2021', 'DD/MM/YYYY')
        and TO_DATE ('01/01/2022', 'DD/MM/YYYY')
   group by cl.clientid,cl.companyname
   order by sumPrice desc)
where rownum <=40
```

	CLIENTID	COMPANYNAME		SUMPRICE
1	115	Roodel	...	9870267
2	623	Zoonoodle	...	9764351
3	881	Wikizz	...	8560232
4	19	Mydo	...	8527900
5	246	Feedmix	...	8330954
6	67	Oodoo	...	8298233
7	827	Tazz	...	8181773
8	799	Skimia	...	8166050
9	782	Kazio	...	8125816
10	563	Dabfeed	...	7806352

שאלתה 7

תיאור: הלקוחות שממתינים לתכנה (קנו אבל התכנה עדיין לא סיימה(דדליין) ואין לזה דו"ח)

```
select distinct
    clientid,
    companyname
from sold_to st
    natural join project
    natural join client
where solddate < deadline

minus

select cl.clientid,
    companyname
from actionreport ar,
    client cl
where ar.clientid = cl.clientid
```

	CLIENTID	COMPANYNAME	
1	82	Brainlounge	...
2	88	Skynoodle	...
3	100	Photobug	...
4	126	Thoughtbridge	...
5	242	Yombu	...
6	270	Tagchat	...
7	330	Youspan	...
8	354	Meembee	...
9	355	Gabspot	...
10	410	Dabshots	...

שאלתה 8

תיאור: הצוותים שהתכנות שהם כתבו ריגלו הכי הרבה מטרות.

```
select distinct tm.teamname,
               count(ac.personid) sumTarget
from team tm,
     project pr,
     spyware sp,
     actionreport ac
where tm.projectid = pr.projectid
      and pr.projectid = sp.projectid
      and ac.spywareid = sp.spywareid
group by tm.teamname
order by sumTarget desc
```

TEAMNAME	SUMTARGET
sbottinir	3
imaylott30	3
sbroadberrie42	3
aheaslip6r	2
ewatkins6s	2
mmeryett6t	2
vgrishenkovd	1
dbysouthq	1
iembyw	1
kdalbyv	1

אינדקסים:

מוציא
לסוף

```
create index index_w_seniority_salary on worker(seniority,salary);

create index index_ac_datereport on actionreport(datereport);

create index index_lc_country on location(country);

create index index_dp_deptname department(deptname);

create index index_lc_city on location(city);

create index index_sp_type on spyware(type);
```

4 האינדקסים העליונים מועילים מכיוון שהשתמשנו בהם בשאלות והתחנות לא מכיוון שלא נעשה שימוש בעמודות אלה.

דוגמא 1 על השפעה מועילה:

```
select distinct wr1.name,
wr1.personid,
wr1.salary,
wr1.seniority,
wr2.name,
wr2.personid,
wr2.salary,
wr2.seniority
from (select personid,
name,
salary,
seniority,
country
from worker natural join person
natural join location)wr1,
```

	NAME	PERSONID	SALARY	SENIORITY	NAME	PERSONID	SALARY	SENIORITY
1	Aaron Bancroft	1613	21997.41	13	Maggie Craddock	1890	12123.11	20
2	Aaron Bancroft	1613	21997.41	13	Garland Firth	1347	13922.52	17
3	Aaron Bancroft	1613	21997.41	13	Tori Cotton	1558	14297.17	18
4	Adina Crewson	1667	20844.01	7	Kyra Baldwin	1796	13285.4	16
5	Ahmad Stiller	1879	42154.13	9	Kasey Fisher	1900	29158.64	30
6	Ahmad Stiller	1879	42154.13	9	Moe Hayek	1294	8984.01	24
7	Ahmad Stiller	1879	42154.13	9	Leelee Wolf	1350	40624.8	20
8	Ahmad Stiller	1879	42154.13	9	Kathy Humphrey	1233	12650.98	23
9	Ahmad Stiller	1879	42154.13	9	Lili Choice	1973	16689.81	13
10	Aida Merchant	1547	25101.18	7	Rosario Whitman	1882	21480.13	12

5:22 SYSTEM@XE [17:05:46] 10 rows selected in 0.260 seconds (more...)

NAME	PERSONID	SALARY	SENIORITY	NAME	PERSONID	SALARY	SENIORITY
Aaron Bancroft	1613	21997.41	13	Garland Firth	1347	13922.52	
Aaron Bancroft	1613	21997.41	13	Maggie Craddock	1890	12123.11	
Aaron Bancroft	1613	21997.41	13	Tori Cotton	1558	14297.17	
Adina Crewson	1667	20844.01	7	Kyra Baldwin	1796	13285.4	
Ahmad Stiller	1879	42154.13	9	Kasey Fisher	1900	29158.64	
Ahmad Stiller	1879	42154.13	9	Kathy Humphrey	1233	12650.98	
Ahmad Stiller	1879	42154.13	9	Leelee Wolf	1350	40624.8	
Ahmad Stiller	1879	42154.13	9	Lili Choice	1973	16689.81	
Ahmad Stiller	1879	42154.13	9	Moe Hayek	1294	8984.01	
Aida Merchant	1547	25101.18	7	Allison Rubinek	1625	18367.77	

2:26 SYSTEM@XE [11:33:59] 10 rows selected in 0.204 seconds (more...)

דוגמא 2 על השפעה מועילה:

	DEPTID	DEPTNAME	
▶ 1	27	Human Resources	...
2	40	Accounting	...
3	89	Product Management	...
4	52	Engineering	...
5	61	Support	...
6	76	Training	...
7	106	Services	...
8	107	Services	...
9	113	Product Management	...
10	132	Services	...

17:38 SYSTEM@XE [11:39:47] 10 rows selected in 0.177 seconds (more...)

	DEPTID	DEPTNAME	
▶ 1	27	Human Resources	...
2	40	Accounting	...
3	89	Product Management	...
4	52	Engineering	...
5	61	Support	...
6	76	Training	...
7	106	Services	...
8	107	Services	...
9	113	Product Management	...
10	132	Services	...

9:55 SYSTEM@XE [11:40:07] 10 rows selected in 0.038 seconds (more...)

דוגמא 3 על השפעה מועילה:

	PERSONID	NAME	COUNTRY	DEPTNAME
▶ 1	1613	Aaron Bancroft	Thailand	Product Management
2	1667	Adina Crewson	Serbia	Research and Development
3	1319	Adina Garber	New Zealand	Marketing
4	1087	Adrien Rydell	China	Accounting
5	1879	Ahmad Stiller	Vietnam	Business Development
6	1547	Aida Merchant	Croatia	Services
7	1897	Alana DeLuise	China	Product Management
8	1248	Alana Horton	Indonesia	Legal
9	1442	Alana Pleasence	Ukraine	Sales
10	1974	Alannah Farrell	Philippines	Engineering

15:26 SYSTEM@XE [11:44:27] 10 rows selected in 0.052 seconds (more...)

	PERSONID	NAME	COUNTRY	DEPTNAME
1	1613	Aaron Bancroft	Thailand	Product Management
2	1667	Adina Crewson	Serbia	Research and Development
3	1319	Adina Garber	New Zealand	Marketing
4	1087	Adrien Rydell	China	Accounting
5	1879	Ahmad Stiller	Vietnam	Business Development
6	1547	Aida Merchant	Croatia	Services
7	1897	Alana DeLuise	China	Product Management
8	1248	Alana Horton	Indonesia	Legal
9	1442	Alana Pleasence	Ukraine	Sales
10	1974	Alannah Farrell	Philippines	Engineering

7:25 SYSTEM@XE [11:45:00] 10 rows selected in 0.021 seconds (more...)

דוגמא 4 על השפעה מועילה:

DEPTID	DEPTNAME	SUMPRICE
1	1 Research and Development	577535388
2	3 Sales	512529513
3	2 Services	505289364
4	4 Training	497384580
5	5 Accounting	458865411
6	6 Training	442559019
7	7 Support	420466557
8	9 Accounting	416338371
9	10 Support	394558191
0	8 Services	393992343

13:1 SYSTEM@XE [11:52:00] 10 rows selected in 0.086 seconds (more...)

DEPTID	DEPTNAME	SUMPRICE
1	1 Research and Development	577535388
2	3 Sales	512529513
3	2 Services	505289364
4	4 Training	497384580
5	5 Accounting	458865411
6	6 Training	442559019
7	7 Support	420466557
8	9 Accounting	416338371
9	10 Support	394558191
10	8 Services	393992343

13:1 SYSTEM@XE [11:52:22] 10 rows selected in 0.040 seconds (more...)



RECATS_USER_PARM_VALUES	TABLE	27/08/2011 08:23:15
SOLD_TO	TABLE	27/03/2022 20:39:18
SPYWARE	TABLE	27/03/2022 17:36:26
SQLPLUS_PRODUCT_PROFILE	TABLE	27/08/2011 08:36:13
TARGET	TABLE	27/03/2022 17:36:26
TEAM	TABLE	03/04/2022 17:16:37
WORKER	TABLE	27/03/2022 17:36:26

User SYSTEM

Oracle Export SQL Inserts PL/SQL Developer Log

☒ Drop tables
☒ Create tables
☐ Truncate tables
☐ Delete records
☒ Disable triggers

☒ Disable foreign key constraints
☒ Include storage
☒ Include privileges
Commit every 100 records (0 = never)
Where clause

☐ Zip

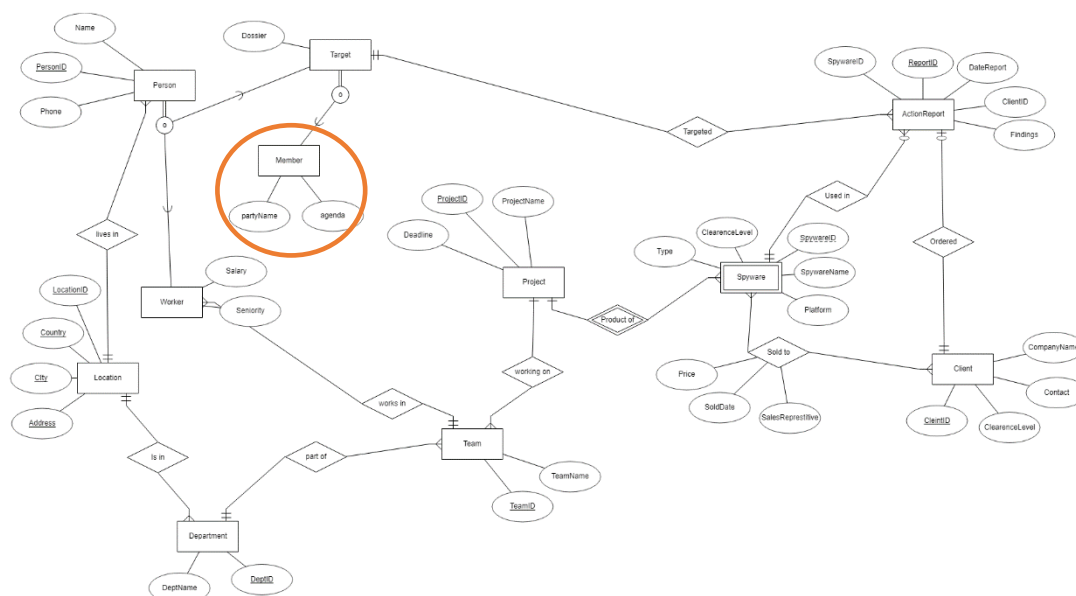
Output file C:\Users\user\Downloads\באקאפ\שליב ב\בסיסי נתונים\שליב ב\back2\back2.sql

Export

שלב ג

אינטגרציה

איחוד מסד הנתונים שלנו עם מסד הנתונים של הכנסת, חבר כנסת בתור יורש מישות מטרה.



יצירת הטבלה :

```

CREATE TABLE Member
(
    agenda VARCHAR(150) NOT NULL,
    partyName VARCHAR(100) NOT NULL,
    PersonID INT NOT NULL,
    PRIMARY KEY (PersonID),
    FOREIGN KEY (PersonID) REFERENCES Target(PersonID)
);
    
```

הכנסת נתונים:

```

insert into MEMBER (agenda,partyName,PersonID) values ('Donec semper sapien a libero.','opa', 980);
insert into MEMBER (agenda,partyName,PersonID) values ('Lorem ipsum dolor sit amet, consectetur adipiscing elit.','use', 981);
insert into MEMBER (agenda,partyName,PersonID) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.','mcr', 982);
insert into MEMBER (agenda,partyName,PersonID) values ('Quisque porta volutpat erat.','yeshatid', 983);
insert into MEMBER (agenda,partyName,PersonID) values ('In hac habitasse platea dictumst.','merez', 984);
insert into MEMBER (agenda,partyName,PersonID) values ('Sed accumsan felis.','yamina', 985);
insert into MEMBER (agenda,partyName,PersonID) values ('Maecenas pulvinar lobortis est.','likud', 986);
insert into MEMBER (agenda,partyName,PersonID) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est.','aleyarak', 987);
insert into MEMBER (agenda,partyName,PersonID) values ('Vivamus metus arcu, adipiscing molestie, hendrerit at, vulputate vitae, nisl.','avoda', 2);
insert into MEMBER (agenda,partyName,PersonID) values ('Nunc nisl.','raham', 3);
insert into MEMBER (agenda,partyName,PersonID) values ('In congue.','meshutefet', 4);
insert into MEMBER (agenda,partyName,PersonID) values ('Phasellus sit amet erat.','ozma', 5);
insert into MEMBER (agenda,partyName,PersonID) values ('Morbi vel lectus in quam fringilla rhoncus.','amutriz', 6);
    
```

שאלתה בה רואים את כל החברי כנסת שיש עליהם דוח מטרה עם שימוש בתוכנה אשר פותחה בחברה:

```
select name,partyName
from actionreport,member,person
where actionreport.personid = member.personid
and person.personid = member.personid
```

		NAME		PARTYNAME	
▶	1	Jeroen Whitwam	...	hapiratim	...
	2	Owen Clark	...	avoda	...
	3	Thin Kenoly	...	raham	...
	4	Tzi Farrell	...	meshutefet	...
	5	LeVar Coe	...	ozma	...
	6	Olympia Hersh	...	smutriz	...
	7	Jeroen Whitwam	...	hapiratim	...
	8	Thin Kenoly	...	raham	...
	9	LeVar Coe	...	ozma	...