HACKATHON CONTEST

Abstract

A hackathon is basically an event, typically lasting several days, in which a large number of people meet to engage in collaborative computer programming in order to solve a real time problem or a simulated problem or a case study usually by building web and mobile services. Now, to facilitate hackathons, one must ensure the smooth management of the event such as gathering the solutions and validating the strength of the solutions provided by the students. Finally, the best possible solution is awarded a prize by the experts/panel of judges. Also the teams must be permitted to participate in the event by their respective colleges/universities. At the end of the hackathon, all the participants are given a certificate of participation. So, this project basically deals with managing a hackathon efficiently. It's implemented using SQL(back end) and JAVA(front end).

REQUIREMENT ANALYSIS

List of tables:

HACKATHON

STUDENTS

COLLEGES

EXPERT

RESULTS

PARTICIPATE

STUDY

PRESENTS

REWARDS

List of attributes with their domain types:

HACKATHON :

Team id:team_id -Number()

duration:duration-varchar()

type-varchar(20)

STUDENTS:

student id: sid -number(10)

student name: sname-varchar(20)

branch-varchar(15)

COLLEGES:

college id: cid-number(5)

college address-varchar(5)

college name: cname -varchar(20)

EXPERT :

Title: HACKATHON CONTEST

expert id: eid-number(5)

expert name=ename-varchar(15)

qualification-varchar(30)

RESULTS :

student id:sid -number(5)

score-number(20)

certificate_status-varchar2(20)

Date: day-date

PARTICIPATE :

Date : day-date

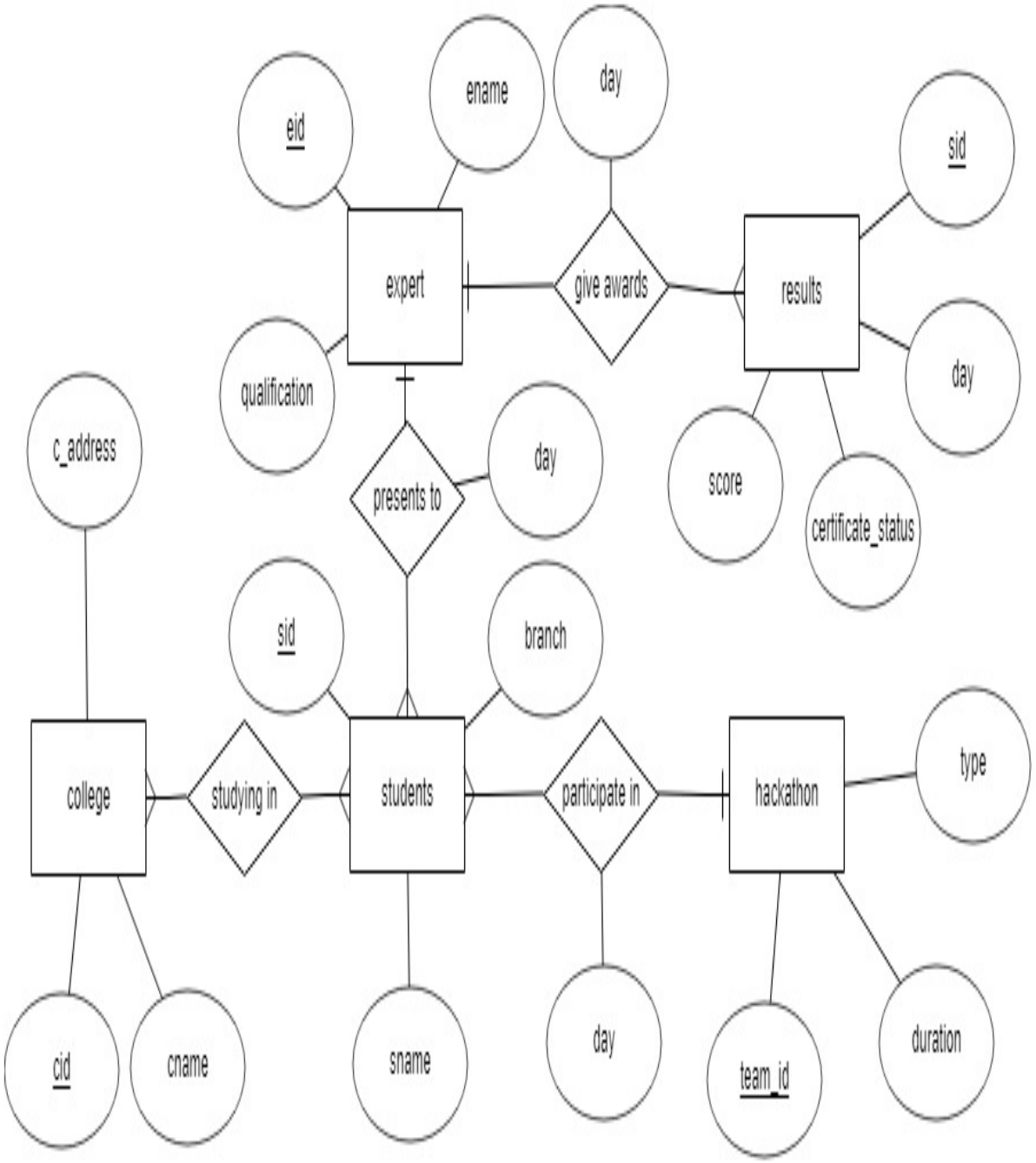
PRESENTS:

Date : day-date

REWARDS:

Date : day-date

ER DIAGRAM


eid
ename
day
sid
expert
give awards
results
qualification
day
c_address
presents to
day
score
certificate_status
sid
branch
college
studying in
students
participate in
hackathon
type
cid
cname
sname
day
team_id
duration

Mapping Cardinalities and Participation Constraints:

A hackathon can conduct a one contest for many students can be come from many colleges so one to many mapping cardinalities between hackathon and students.

A many students can come from many colleges.so, many to many mapping cardinalities between students and colleges.

A many students can present there presentation to an one expert.so manyto one mapping cardinality between students and expert.

An one expert can give rewards on particular day relesing many results so one to many mapping cardinality between expert and results.

DDL COMMADS:

```
SQL> create table hackathon(
  2  team_id number(10) primary key,
  3  duration varchar2(20),
  4  type char(50));

Table created.

SQL> create table students(
  2  sid number(5) primary key,
  3  sname varchar2(20),
  4  branch varchar2(20));

Table created.

SQL> create table colleges(
  2  c_address varchar2(20),
  3  cname varchar2(20),
  4  cid number(10)) primary key;

Table created.

SQL> create table expert(
  2  eid number(10) primary key,
  3  ename varchar2(20),
  4  qualification varchar2(20));

Table created.
```

```
SQL> create table results(
  2  sid number(10) primary key,
  3  day date,
  4  certificate_status varchar2(10),
  5  score number(20));

Table created.

SQL> ed
Wrote file afiedt.buf

  1  create table participate(
  2  team_id number(10),
  3  sid number(10),
  4  primary key(team_id,sid),
  5  foreign key(team_id)references hackathon(team_id),
  6* foreign key(sid)references students(sid))
SQL> /

Table created.

SQL> create table study(
  2  sid number(10),
  3  cid number(10),
  4  primary key(sid,cid),
  5  foreign key(sid)references students(sid),
  6  foreign key(cid)references colleges(cid));
```

Table created.

```
SQL> create table presents(
  2  sid number(10),
  3  eid number(10),
  4  primary key(sid,eid),
  5  foreign key(sid)references students(sid),
  6  foreign key(eid)references expert(eid));
```

Table created.

```
SQL> alter table participate add(day date);
```

Table altered.

```
SQL> alter table presents add(day date);
```

Table altered.

```
SQL> create table rewards(
  1  day date,
  2  eid number(10),
  3  sid number(10),
  4  primary key(eid,sid),
  5  foreign key(eid)refereces expert(eid),
  6  foreign key(sid)references results(sid));
```

DBMS ASSIGNMENT I
Title: HACKATHON CONTEST

Table created.

SQL> select * from tab;

```
TNAME                          TABTYPE  CLUSTERID
------------------------------ ------- ----------
COLLEGES                       TABLE
EXPERT                         TABLE
HACKATHON                      TABLE
PARTICIPATE                    TABLE
PRESENTS                       TABLE
RESULTS                        TABLE
REWARDS                        TABLE
STUDENTS                       TABLE
STUDY                          TABLE

9 rows selected.
```

SQL> desc hackathon;

```
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 TEAM_ID                                   NOT NULL NUMBER(10)
 DURATION                                           VARCHAR2(20)
 TYPE                                               CHAR(50)
```

SQL> desc students;

```
 Name                                      Null?    Type
```

SID	NOT NULL	NUMBER(5)
SNAME		VARCHAR2(20)
BRANCH		VARCHAR2(20)

SQL> desc colleges;

Name	Null?	Type
C_ADDRESS		VARCHAR2(20)
CNAME		VARCHAR2(20)
CID	NOT NULL	NUMBER(10)

SQL> desc expert;

Name	Null?	Type
EID	NOT NULL	NUMBER(10)
ENAME		VARCHAR2(20)
QUALIFICATION		VARCHAR2(20)

SQL> desc rewards;

Name	Null?	Type
EID	NOT NULL	NUMBER(10)
SID	NOT NULL	NUMBER(10)
DAY		DATE

SQL> desc participate;

Name	Null?	Type
TEAM_ID	NOT NULL	NUMBER(10)
SID	NOT NULL	NUMBER(10)
DAY		DATE

SQL> desc study;

Name	Null?	Type
SID	NOT NULL	NUMBER(10)
CID	NOT NULL	NUMBER(10)

SQL> desc presents;

Name	Null?	Type
SID	NOT NULL	NUMBER(10)
EID	NOT NULL	NUMBER(10)
DAY		DATE

SQL> desc results;

Name	Null?	Type
SID	NOT NULL	NUMBER(10)

DAY	DATE
in CERTIFICATE_STATUS	VARCHAR2(10)
SCORE	NUMBER(20)

DML COMMANDS:-

```
SQL> insert into hackathon(&team_id,&type,'&duration','&type');

Enter value for team_id: 086

Enter value for duration: 1:30

Enter value for type: s/w

old      1: insert into hackathon values(&team_id,'&duration','&type')

new      1: insert into hackathon values(086,'1:30','s/w')


1 row created.


SQL> /

Enter value for team_id: 087

Enter value for duration: 2:00

Enter value for type: s/w

old      1: insert into hackathon values(&team_id,'&duration','&type')

new      1: insert into hackathon values(087,'2:00','s/w')

&

1 row created.


SQL> /

Enter value for team_id: 088

Enter value for duration: 2:30

Enter value for type: h/w

old      1: insert into hackathon values(&team_id,'&duration','&type')

new      1: insert into hackathon values(088,'2:30','h/w')
```

1 row created.

SQL> /

Enter value for team_id: 090

Enter value for duration: 3:00

Enter value for type: h/w

old 1: insert into hackathon values(&team_id,'&duration','&type')

new 1: insert into hackathon values(090,'3:00','h/w')

1 row created.

SQL> select * from hackathon;

TEAM_ID DURATION

---------- --------------------

TYPE

----

86 1:30

s/w

87 2:00

s/w

88 2:30

h/w

TEAM_ID DURATION

---------- --------------------

TYPE

----

90 3:00

h/w

SQL> insert into students values(&sid,'&sname','&branch');

Enter value for sid: 086

Enter value for sname: omkar

Enter value for branch: it

old 1: insert into students values(&sid,'&sname','&branch')

new 1: insert into students values(086,'omkar','it')

1 row created.

SQL> /

Enter value for sid: 087

Enter value for sname: pavan

Enter value for branch: it

old 1: insert into students values(&sid,'&sname','&branch')

new 1: insert into students values(087,'pavan','it')

1 row created.

```
SQL> /

Enter value for sid: 088

Enter value for sname: pradeep

Enter value for branch: it

old      1: insert into students values(&sid,'&sname','&branch')

new      1: insert into students values(088,'pradeep','it')


1 row created.


SQL> /

Enter value for sid: 090

Enter value for sname: pranay

Enter value for branch: it

old      1: insert into students values(&sid,'&sname','&branch')

new      1: insert into students values(090,'pranay','it')


1 row created.


SQL> select * from students;


               SID SNAME                          BRANCH

---------- -------------------- --------------------

                86 omkar                         it

                87 pavan                         it
```

88 pradeep it

90 pranay it

SQL> insert into colleges values(&cid,'&cname','&c_address');

Enter value for cid: 1602

Enter value for cname: vasavi

Enter value for c_address: 1145

old 1: insert into colleges values(&cid,'&cname',&c_address)

new 1: insert into colleges values(1602,'vasavi',1145)

1 row created.

SQL> /

Enter value for cid: 911

Enter value for cname: vjit

Enter value for c_address: 4878

old 1: insert into colleges values(&cid,'&cname',&c_address)

new 1: insert into colleges values(911,'vjit',4878)

1 row created.

SQL> /

Enter value for cid: 1601

Enter value for cname: cbit

Enter value for c_address: 4651

old 1: insert into colleges values(&cid,'&cname',&c_address)

new 1: insert into colleges values(1601,'cbit',4651)

1 row created.

SQL> /

Enter value for cid: 912

Enter value for cname: jbit

Enter value for c_address: 2154

old 1: insert into colleges values(&cid,'&cname',&c_address)

new 1: insert into colleges values(912,'jbit',2154)

1 row created.

SQL> select *from colleges;

C_ADDRESS	CNAME	CID
1602	vasavi	1145
911	vjit	4878
1601	cbit	4651
912	jbit	2154

SQL> insert into expert values(&eid,'&ename',&qualification);

Enter value for eid: 38

Enter value for ename: brutus

Enter value for qualification: phd

old 1: insert into expert values(&eid,'&ename','&qualification')

new 1: insert into expert values(38,'brutus','phd')

```
1 row created.


SQL> select * from expert;


       EID ENAME                          QUALIFICATION

---------- -------------------- --------------------

        38 brutus                         phd


SQL> insert into results values(&sid,'03-feb-2020','&certificate_status',&score);

Enter value for sid: 086

Enter value for certificate_status: pass

Enter value for score: 95

old      1: insert into results values(&sid,'03-feb-2020','&certificate_status',&score)

new      1: insert into results values(086,'03-feb-2020','pass',95)


1 row created.


SQL> /

Enter value for sid: 087

Enter value for certificate_status: pass

Enter value for score: 85

old      1: insert into results values(&sid,'03-feb-2020','&certificate_status',&score)

new      1: insert into results values(087,'03-feb-2020','pass',85)


1 row created.
```

```
SQL> /

Enter value for sid: 088

Enter value for certificate_status: pass

Enter value for score: 99

old      1: insert into results values(&sid,'03-feb-2020','&certificate_status',&score)

new      1: insert into results values(088,'03-feb-2020','pass',99)


1 row created.


SQL> /

Enter value for sid: 090

Enter value for certificate_status: pass

Enter value for score: 89

old      1: insert into results values(&sid,'03-feb-2020','&certificate_status',&score)

new      1: insert into results values(090,'03-feb-2020','pass',89)


1 row created.

SQL> select * from results;


           SID DAY             CERTIFICAT          SCORE

---------- --------- ---------- ----------

            86 03-FEB-20 pass                       95

            87 03-FEB-20 pass                       85

            88 03-FEB-20 pass                       99
```

```
        90 03-FEB-20 pass                    89

SQL> insert into participate values(&team_id,&sid,'&day');

Enter value for team_id: 086

Enter value for sid: 86

Enter value for day: 13-feb-2020

old   1: insert into participate values(&team_id,&sid,'&day')

new   1: insert into participate values(086,86,'13-feb-2020')


1 row created.


SQL> /

Enter value for team_id: 087

Enter value for sid: 87

Enter value for day: 13-feb-2020

old   1: insert into participate values(&team_id,&sid,'&day')

new   1: insert into participate values(087,87,'13-feb-2020')


1 row created.


SQL> /

Enter value for team_id: 088

Enter value for sid: 88

Enter value for day: 13-feb-2020

old   1: insert into participate values(&team_id,&sid,'&day')

new   1: insert into participate values(088,88,'13-feb-2020')
```

```
1 row created.

SQL> select * from participate;

   TEAM_ID                SID DAY
---------- ---------- ---------
        86                 86 13-FEB-20
        87                 87 13-FEB-20
        88                 88 13-FEB-20
SQL> insert into study values(&sid,&cid);
Enter value for sid: 86
Enter value for cid: 1145
old   1: insert into study values(&sid,&cid)
new   1: insert into study values(86,1145)

1 row created.

SQL> /
Enter value for sid: 87
Enter value for cid: 4878
old   1: insert into study values(&sid,&cid)
new   1: insert into study values(87,4878)

1 row created.
```

```
SQL> /

Enter value for sid: 88

Enter value for cid: 4651

old      1: insert into study values(&sid,&cid)

new      1: insert into study values(88,4651)


1 row created.


SQL> select * from study;


             SID                CID

---------- ----------

               86              1145

               87              4878

              88              4651

SQL> insert into presents values(&sid,&eid,'13-feb-2020');

Enter value for sid: 86

Enter value for eid: 38

old      1: insert into presents values(&sid,&eid,'13-feb-2020')

new      1: insert into presents values(86,38,'13-feb-2020')


1 row created.


SQL> /

Enter value for sid: 87
```

```
Enter value for eid: 38

old      1: insert into presents values(&sid,&eid,'13-feb-2020')

new      1: insert into presents values(87,38,'13-feb-2020')


1 row created.


SQL> /

Enter value for sid: 88

Enter value for eid: 38

old      1: insert into presents values(&sid,&eid,'13-feb-2020')

new      1: insert into presents values(88,38,'13-feb-2020')


1 row created.


SQL> select * from presents;


               SID                EID DAY

---------- ---------- ---------

                 86                 38 13-FEB-20

                 87                 38 13-FEB-20

                 88                 38 13-FEB-20

SQL> insert into rewards values(38,&sid,'13-feb-2020');

Enter value for sid: 86

old      1: insert into rewards values(38,&sid,'13-feb-2020')

new      1: insert into rewards values(38,86,'13-feb-2020')
```

```
1 row created.

SQL> /

Enter value for sid: 87

old      1: insert into rewards values(38,&sid,'13-feb-2020')

new      1: insert into rewards values(38,87,'13-feb-2020')

1 row created.

SQL> /

Enter value for sid: 88

old      1: insert into rewards values(38,&sid,'13-feb-2020')

new      1: insert into rewards values(38,88,'13-feb-2020')

1 row created.

SQL> select * from rewards;

       EID               SID DAY

---------- ---------- ---------

        38                86 13-FEB-20

        38                87 13-FEB-20

        38                88 13-FEB-20
```