"MOOCS ONLINE DATA MANAGEMENT"

<u>ABSTRACT</u>

The current challenges that the students are facing include traditional colleges and universities — including higher tuition, budget cuts, and course shortages which is causing many students to search for alternatives. Online education has clearly become one of the most popular higher education alternatives. All of this means that students, from   working professionals to recent high school graduates, find many reasons to take all or some of their courses online.MOOCS(Massive Open Online Course) is an online course aimed at unlimited participation and open access via the web. In addition to tradittional course materials,such as filmed lectures,readings,and problem sets,many MOOCs provide interactive courses with user forums or social media discussions to support community interactions among students,professors,and teaching assistants,as well as immediate feedback to quick quizzes and assignments.MOOCs are a recent and widely reasearched devolopment in distance education which ensures quality and also been suggested across

the world.

LIST OF REQUIREMENTS

LIST OF TABLES:

- Applicants

- Moocs_udemy

- Trainers

- Enrolls

- Teaches

List of attributes with their domain type:

-- Applicants

- name(char)

- userid(varchar) -primary key

- mailid(varchar)

- pasword(varchar)

- mobilenum(number)

--Moocs_udemy

- courseid(varchar)   -primary key

- userid(varchar)

- coursename(char)

- duration(varchar)

- exam(char)

--Trainers

- courseid(varchar)

- trainerid(varchar)   -primary key

- tname(char)

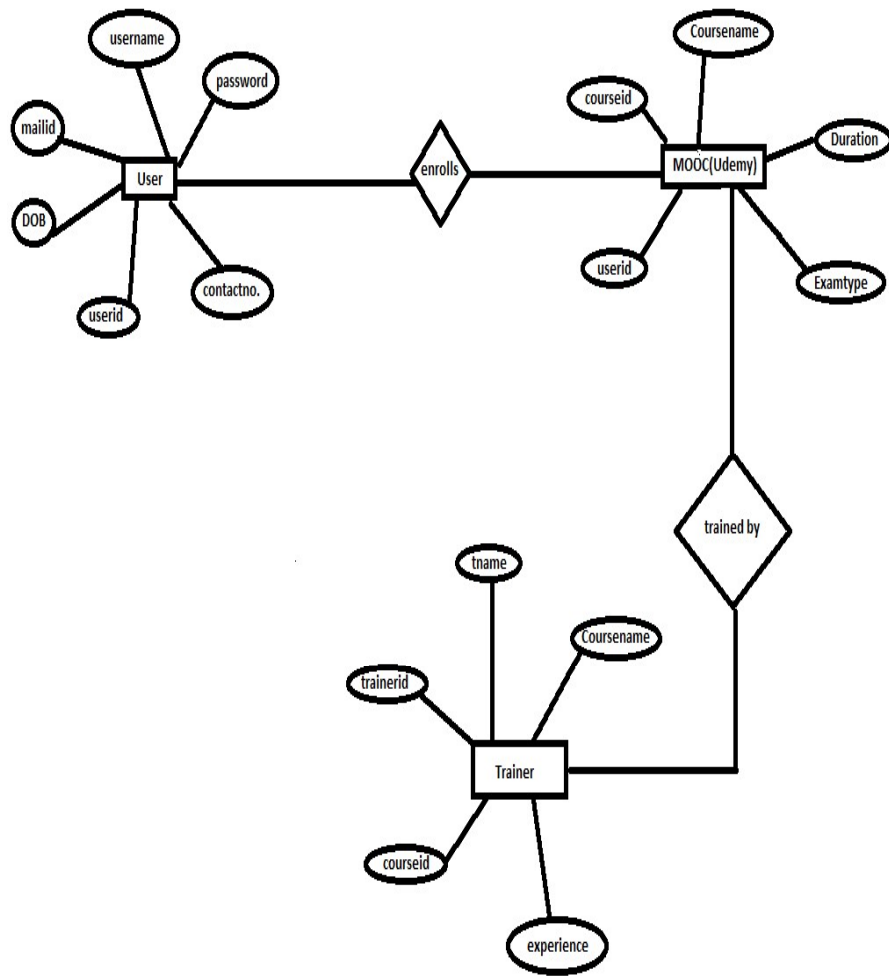- coursetaught(char)

- experience(varchar)

--Enrolls

- userid(varchar)   -foreign key

- courseid(varchar) -foreign key

--Teaches

- courseid(varchar) -foreign key

- trainerid(varchar) -foreign key

ER DIAGRAM

MAPPING CARDINALTIES
AND
PARTICIPATION CONSTRAINTS

- Applicants apply for a course in Udemy.(many to one)

- Trainer teaches a course in Udemy.(one to one)

- Trainer can also teach many courses.(one to many)

DDL   COMMANDS:

```
Table created.

SQL>
SQL> desc trainers;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 COURSEID                                           VARCHAR2(20)
 TRAINERID                                 NOT NULL VARCHAR2(20)
 TNAME                                              CHAR(30)
 COURSETAUGHT                                       CHAR(30)
 EXPERIENCE                                         VARCHAR2(20)

SQL> create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainers);
create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainers)
                 *
ERROR at line 1:
ORA-00955: name is already used by an existing object


SQL> desc teaches;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 COURSEID                                           VARCHAR2(20)
 TRAINERID                                          VARCHAR2(20)

SQL>
SQL> alter table teaches add foreign key(courseid) references moocs_udemy;
alter table teaches add foreign key(courseid) references moocs_udemy
                    *
ERROR at line 1:
ORA-02275: such a referential constraint already exists in the table


SQL>
SQL> desc teaches;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 COURSEID                                           VARCHAR2(20)
 TRAINERID                                          VARCHAR2(20)

SQL> desc enrolls;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             VARCHAR2(20)
 COURSEID                                           VARCHAR2(20)

SQL>
```

```
SQL> drop table enrolls;

Table dropped.

SQL> create table enrolls(courseid varchar(20) references applicants,userid varchar(20) references moocs_udemy);

Table created.

SQL> desc enrolls;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 COURSEID                                           VARCHAR2(20)
 USERID                                             VARCHAR2(20)

SQL> drop table enrolls;

Table dropped.

SQL> create table enrolls(userid varchar(20) references applicants,courseid varchar(20) references moocs_udemy);

Table created.

SQL> desc enrolls;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             VARCHAR2(20)
 COURSEID                                           VARCHAR2(20)

SQL> desc enrolls;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             VARCHAR2(20)
 COURSEID                                           VARCHAR2(20)

SQL> desc enrolls;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 USERID                                             VARCHAR2(20)
 COURSEID                                           VARCHAR2(20)

SQL> create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainer);
create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainer)
                                                                                                    *
ERROR at line 1:
ORA-02268: referenced table does not have a primary key
```

```
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
USERID                                           VARCHAR2(20)
COURSEID                                          VARCHAR2(20)

SQL> desc enrolls;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
USERID                                           VARCHAR2(20)
COURSEID                                          VARCHAR2(20)

SQL> desc enrolls;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
USERID                                           VARCHAR2(20)
COURSEID                                          VARCHAR2(20)

SQL> create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainer);
create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainer)
                                                                                                        *
ERROR at line 1:
ORA-02268: referenced table does not have a primary key


SQL> create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainers);

Table created.

SQL>
SQL> desc trainers;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
COURSEID                                         VARCHAR2(20)
TRAINERID                               NOT NULL VARCHAR2(20)
TNAME                                            CHAR(30)
COURSETAUGHT                                     CHAR(30)
EXPERIENCE                                       VARCHAR2(20)

SQL> create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainers);
create table teaches(courseid varchar(20) references moocs_udemy,trainerid varchar(20) references trainers)
              *
ERROR at line 1:
ORA-00955: name is already used by an existing object


SQL> desc teaches;
Name                                    Null?    Type
```

```
SQL> conn system
Enter password:
Connected.
SQL> desc applicants;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
NAME                                             CHAR(20)
USERID                                  NOT NULL VARCHAR2(20)
MAILID                                           VARCHAR2(20)
PASWORD                                          VARCHAR2(20)
MOBILENUM                                        NUMBER(10)

SQL> desc moocs_udemy
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
COURSEID                                NOT NULL VARCHAR2(20)
USERID                                           VARCHAR2(20)
COURSENAME                                       CHAR(40)
DURATION                                         VARCHAR2(20)
EXAM                                             CHAR(20)

SQL> desc trainers;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
COURSEID                                         VARCHAR2(20)
TRAINERID                               NOT NULL VARCHAR2(20)
TNAME                                            CHAR(30)
COURSETAUGHT                                     CHAR(30)
EXPERIENCE                                       VARCHAR2(20)

SQL> desc teaches
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
COURSEID                                         VARCHAR2(20)
TRAINERID                                        VARCHAR2(20)

SQL> desc enrolls;
Name                                    Null?    Type
--------------------------------------- -------- ----------------------
USERID                                           VARCHAR2(20)
COURSEID                                          VARCHAR2(20)

SQL>
```

DML COMMANDS:

```
SQL> insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum');
Enter value for name: Harini jeevitha
Enter value for userid: AAA111
Enter value for mailid: abc@gmail.com
Enter value for pasword: 111111
Enter value for mobilenum: 9999988880
old   1: insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum')
new   1: insert into applicants values('Harini jeevitha','AAA111','abc@gmail.com','111111','9999988880')

1 row created.

SQL> /
Enter value for name: Uma murali krishna
Enter value for userid: BBB111
Enter value for mailid: def@gmail.com
Enter value for pasword: 222222
Enter value for mobilenum: 8989898989
old   1: insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum')
new   1: insert into applicants values('Uma murali krishna','BBB111','def@gmail.com','222222','8989898989')

1 row created.

SQL> /
Enter value for name: Ashwini nambiar
Enter value for userid: CCC111
Enter value for mailid: ghi@gmail.com
Enter value for pasword: 333333
Enter value for mobilenum: 9898989890
old   1: insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum')
new   1: insert into applicants values('Ashwini nambiar','CCC111','ghi@gmail.com','333333','9898989890')

1 row created.

SQL> /
Enter value for name: Sandhya Raju
Enter value for userid: DDD111
Enter value for mailid: jkl@gmail.com
Enter value for pasword: 444444
Enter value for mobilenum: 7897897890
old   1: insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum')
new   1: insert into applicants values('Sandhya Raju','DDD111','jkl@gmail.com','444444','7897897890')

1 row created.

SQL> /
Enter value for name: Rama vaidhyanathan
```

```
1 row created.

SQL> /
Enter value for name: Rama vaidhyanathan
Enter value for userid: EEE111
Enter value for mailid: mno@gmail.com
Enter value for pasword: 555555
Enter value for mobilenum: 5678956789
old   1: insert into applicants values('&name','&userid','&mailid','&pasword','&mobilenum')
new   1: insert into applicants values('Rama vaidhyanathan','EEE111','mno@gmail.com','555555','5678956789')

1 row created.

SQL> select * from applicants;

NAME                 USERID               MAILID
-------------------- -------------------- --------------------
PASWORD              MOBILENUM
-------------------- ----------
Harini jeevitha      AAA111               abc@gmail.com
111111               9999988880

Uma murali krishna   BBB111               def@gmail.com
222222               8989898989

Ashwini nambiar      CCC111               ghi@gmail.com
333333               9898989890


NAME                 USERID               MAILID
-------------------- -------------------- --------------------
PASWORD              MOBILENUM
-------------------- ----------
Sandhya Raju         DDD111               jkl@gmail.com
444444               7897897890

Rama vaidhyanathan   EEE111               mno@gmail.com
555555               5678956789


SQL>
```

```
SQL> insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience');
Enter value for courseid: AAA
Enter value for trainerid: 111
Enter value for tname: Advitha
Enter value for coursetaught: Python
Enter value for experience: 5 years
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('AAA','111','Advitha','Python','5 years')

1 row created.

SQL> /
Enter value for courseid: BBB
Enter value for trainerid: 222
Enter value for tname: Sathwika
Enter value for coursetaught: Java
Enter value for experience: 6 years
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('BBB','222','Sathwika','Java','6 years')

1 row created.

SQL> /
Enter value for courseid: CCC
Enter value for trainerid: 333
Enter value for tname: Sahithi
Enter value for coursetaught: IOT
Enter value for experience: 7 years
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('CCC','333','Sahithi','IOT','7 years')

1 row created.

SQL> /
Enter value for courseid: DDD
Enter value for trainerid: 444
Enter value for tname: Prawin
Enter value for coursetaught: Artificial Intelligence
Enter value for experience: 8 years
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('DDD','444','Prawin','Artificial Intelligence','8 years')

1 row created.

SQL> /
Enter value for courseid: EEE
```

```
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('DDD','444','Prawin','Artificial Intelligence','8 years')

1 row created.

SQL> /
Enter value for courseid: EEE
Enter value for trainerid: 555
Enter value for tname: Venkat
Enter value for coursetaught: Data mining
Enter value for experience: 9 years
old   1: insert into trainers values('&courseid','&trainerid','&tname','&coursetaught','&experience')
new   1: insert into trainers values('EEE','555','Venkat','Data mining','9 years')

1 row created.

SQL> select * from trainers;

COURSEID        TRAINERID       TNAME
--------------- --------------- -----------------------------
COURSETAUGHT                    EXPERIENCE
------------------------------- --------------------
AAA             111             Advitha
Python                          5 years

BBB             222             Sathwika
Java                            6 years

CCC             333             Sahithi
IOT                             7 years


COURSEID        TRAINERID       TNAME
--------------- --------------- -----------------------------
COURSETAUGHT                    EXPERIENCE
------------------------------- --------------------
DDD             444             Prawin
Artificial Intelligence         8 years

EEE             555             Venkat
Data mining                     9 years


SQL>
```

```
SQL> insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam');
Enter value for courseid: AAA
Enter value for userid: AAA111
Enter value for coursename: Python
Enter value for duration: 8 weeks
Enter value for exam: online
old   1: insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam')
new   1: insert into moocs_udemy values('AAA','AAA111','Python','8 weeks','online')

1 row created.

SQL> /
Enter value for courseid: BBB
Enter value for userid: BBB111
Enter value for coursename: Java
Enter value for duration: 12 weeks
Enter value for exam: online
old   1: insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam')
new   1: insert into moocs_udemy values('BBB','BBB111','Java','12 weeks','online')

1 row created.

SQL> /
Enter value for courseid: CCC
Enter value for userid: CCC111
Enter value for coursename: IOT
Enter value for duration: 8 weeks
Enter value for exam: offline
old   1: insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam')
new   1: insert into moocs_udemy values('CCC','CCC111','IOT','8 weeks','offline')

1 row created.

SQL> /
Enter value for courseid: DDD
Enter value for userid: DDD111
Enter value for coursename: Artificial Intelligence
Enter value for duration: 8 weeks
Enter value for exam: offline
old   1: insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam')
new   1: insert into moocs_udemy values('DDD','DDD111','Artificial Intelligence','8 weeks','offline')

1 row created.

SQL> /
Enter value for courseid: EEE
```

```
SQL> /
Enter value for courseid: EEE
Enter value for userid: EEE111
Enter value for coursename: Data mining
Enter value for duration: 12 weeks
Enter value for exam: online
old   1: insert into moocs_udemy values('&courseid','&userid','&coursename','&duration','&exam')
new   1: insert into moocs_udemy values('EEE','EEE111','Data mining','12 weeks','online')

1 row created.

SQL> select * from moocs_udemy
  2  ;

COURSEID            USERID
------------------- --------------------
COURSENAME                               DURATION
---------------------------------------- --------------------
EXAM
--------------------
AAA                 AAA111
Python                                   8 weeks
online

BBB                 BBB111
Java                                     12 weeks
online

COURSEID            USERID
------------------- --------------------
COURSENAME                               DURATION
---------------------------------------- --------------------
EXAM
--------------------

CCC                 CCC111
IOT                                      8 weeks
offline

DDD                 DDD111
Artificial Intelligence                  8 weeks

COURSEID            USERID
------------------- --------------------
COURSENAME                               DURATION
---------------------------------------- --------------------
```

```
BBB                      BBB111
Java                                    12 weeks
online

COURSEID             USERID
-------------------- --------------------
COURSENAME                              DURATION
--------------------------------------- --------------------
EXAM
--------------------

CCC                      CCC111
IOT                                     8 weeks
offline
DDD                      DDD111
Artificial Intelligence                 8 weeks
COURSEID             USERID
-------------------- --------------------
COURSENAME                              DURATION
--------------------------------------- --------------------
EXAM
--------------------
offline

EEE                      EEE111
Data mining                             12 weeks
online

SQL>
```

- S.Sathwika Reddy

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