

DBMS Assignment 1

Online MOOC's year wise student database management system

ABSTRACT

Online MOOC's year wise Student Management System is a database management system which is helpful for students as well as the Mooc's providers. In the current system all the activities are done manually. It is very time consuming and costly. Our online Mooc's Student Management System deals with the various activities related to the students and mooc's provider. In the database can register as a user and user has of two types, student and administrator. Administrator has the power to add new user and can edit and delete a user. A student can register as user and can add edit and delete his profile. The administrator can add edit and delete marks for the student. All the users can see the marks.

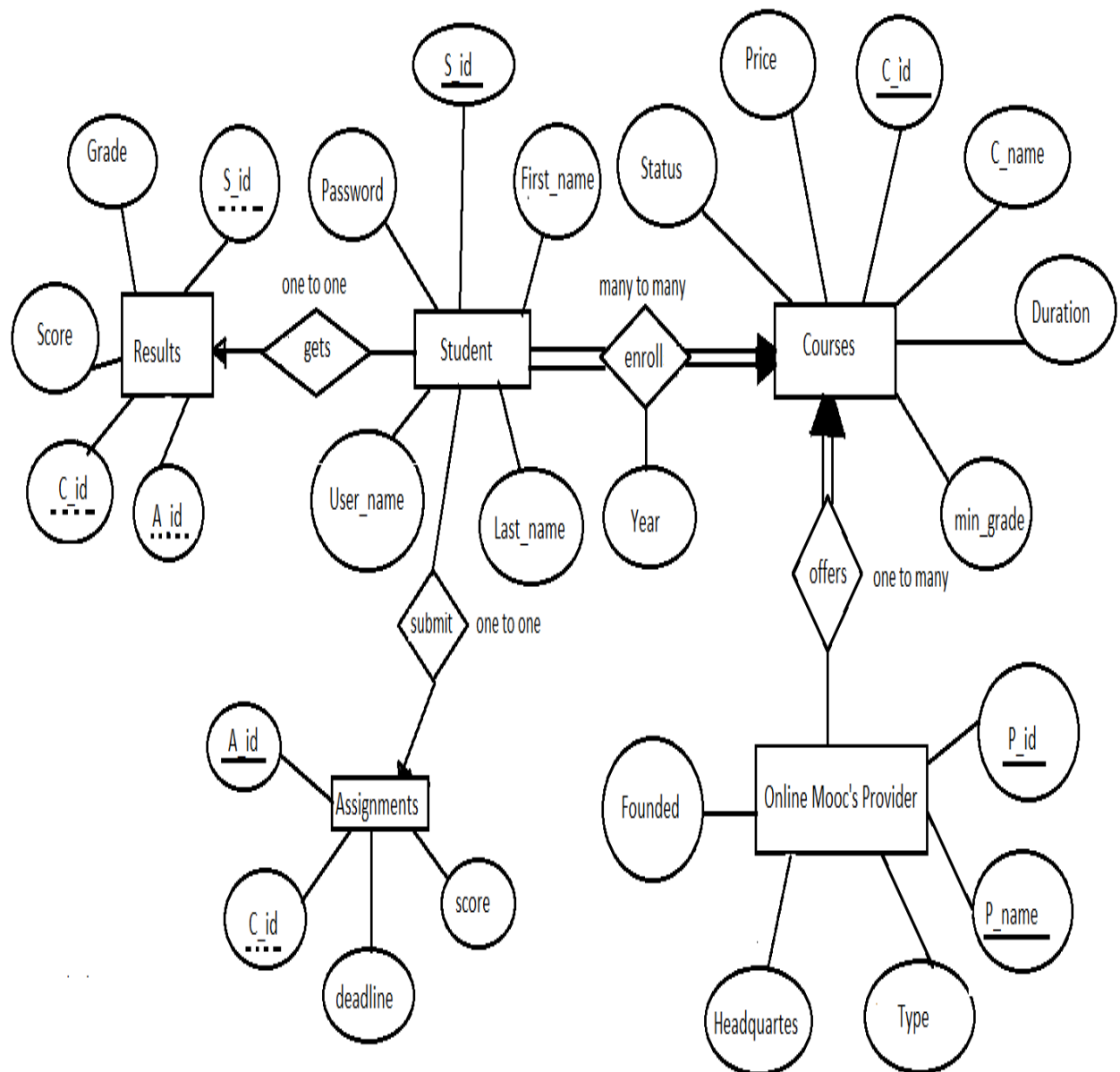
REQUIREMENT ANALYSIS

List of tables :

- Online MOOC's provider
- Courses
- Student
- Enrolls
- Assignments
- Results

List of attributes with their domain types:

ENTITY	ATTRIBUTES	DOMAIN
Online Mooc's provider	1. P_id 2. P_name 3. Type 4. Headquartes 5. Found	Number(5) Varchar2(20) Varchar2(20) Varchar2(20) Number(5)
Courses	1. C_id 2. C_name 3. Duration 4. Min_grade 5. Price 6. Status	Number(5) Varchar2(20) Varchar2(20) Char(5) Number(5) Varchar(10)
Student	1. S_id 2. First_name 3. Last_name 4. User_name 5. Password	Number(5) Varchar(10) Varchar(10) Varchar(10) Varchar(10)
Enrolls	1. S_id 2. C_id 3. Year	Number(5) Number(5) Number(5)
Assignments	1. A_id 2. C_id 3. Deadline 4. Score	Number(5) Number(5) Varchar(10) Number(5)
Results	1. S_id 2. C_id 3. A_id 4. Score	Number(5) Number(5) Number(5) Number(5)

ENTITY RELATIONSHIP DIAGRAM:

MAPPING CARDINALITIES AND PARTICIPATION

CONSTRAINTS:

- Online mooc's provider offers as many courses to the students who want to pursue the course so, it is a one to many mapping. As it is not necessary that one provider should offer only one course.
- Student enrolls into courses, it is many to many mapping as any number of students can enrol into any number of courses.
- Student submits assignment, it is one to one as one student should submit one assignment as per the provider instructions.
- Student gets results if he/submit the assignments and attend the exam, it is one to one mapping as one student get only one result.

DDL Commands:

Creating all the required tables.

```
SQL> create table courses( C_id number(5),C_name varchar2(20),Duration Varchar(20), min_grade Char(10),Status char(10),price Number(3,2));
Table created.

SQL> desc courses;
Name                                Null?    Type
-----
C_ID                                NUMBER(5)
C_NAME                              VARCHAR2(20)
DURATION                            VARCHAR2(20)
MIN_GRADE                           CHAR(10)
STATUS                              CHAR(10)
PRICE                               NUMBER(3,2)

SQL> create table student( S_id number(5),First_name varchar2(20),Last_name Varchar2(20), User_name varchar2(10),Password varchar2(10),price Number(3,2));
Table created.

SQL> desc student;
Name                                Null?    Type
-----
S_ID                                NUMBER(5)
FIRST_NAME                          VARCHAR2(20)
LAST_NAME                           VARCHAR2(20)
USER_NAME                           VARCHAR2(10)
PASSWORD                            VARCHAR2(10)
PRICE                               NUMBER(3,2)

SQL> create table results( S_id number(5),C_id number(5),Score varchar2(20),Grade char(20));
Table created.

SQL> desc results;
Name                                Null?    Type
-----
S_ID                                NUMBER(5)
C_ID                                NUMBER(5)
SCORE                              VARCHAR2(20)
GRADE                              CHAR(20)
```

DBMS ASSIGNMENT 1

```

SQL> desc assignments;
Name                                     Null?   Type
-----
A_ID                                     NUMBER(5)
C_ID                                     NUMBER(5)
DEADLINE                                VARCHAR2(20)
SCORE                                    CHAR(20)

SQL> create table enrolls(S_id Number(5),C_id Number(5),Year Number(5));

Table created.

SQL> desc enrolls;
Name                                     Null?   Type
-----
S_ID                                     NUMBER(5)
C_ID                                     NUMBER(5)
YEAR                                    NUMBER(5)

SQL> alter table Online_Moocs_Provider add primary key(P_id);

Table altered.

SQL> desc Online_Moocs_Provider;
Name                                     Null?   Type
-----
P_ID                                     NOT NULL NUMBER(5)
P_NAME                                  VARCHAR2(20)
TYPE                                    VARCHAR2(20)
HEADQUARTERS                            VARCHAR2(20)
FOUNDED                                  NUMBER(5)

SQL> alter table courses add primary key(C_id);

Table altered.

SQL> alter table Student add primary key (S_id);

Table altered.

SQL> alter table Results add foreign key (S id,C id) references

```

Enforcing constraints to primary, foreign key constraints:

```
SQL> desc Online_Moocs_Provider;
Name                                Null?    Type
-----
P_ID                                NOT NULL NUMBER(5)
P_NAME                              VARCHAR2(20)
TYPE                                VARCHAR2(20)
HEADQUARTERS                        VARCHAR2(20)
FOUNDED                             NUMBER(5)

SQL> alter table courses add primary key(C_id);

Table altered.

SQL> alter table Student add primary key (S_id);

Table altered.

SQL> alter table Results add foreign key (S_id,C_id) references student,courses;
alter table Results add foreign key (S_id,C_id) references student,courses
*
ERROR at line 1:
ORA-01735: invalid ALTER TABLE option

SQL> alter table Results add foreign key (S_id) references student;

Table altered.

SQL> alter table Results add foreign key (C_id) references courses;

Table altered.

SQL> alter table enrolls add foreign key (C_id) references courses;

Table altered.

SQL> alter table enrolls add foreign key (S_id) references student;

Table altered.

SQL> alter table Assignments add foreign key (C_id) references courses;

Table altered.
```

DML commands:**Inserting values into the tables.**

```

SQL> Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded');
Enter value for p_id: 101
Enter value for p_name: SWAYAM
Enter value for type: Non-profit
Enter value for headquartes: India
Enter value for founded: 2017
old 1: Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded')
new 1: Insert into Online_Moocs_Provider values(101,'SWAYAM','Non-profit','India','2017')

1 row created.

SQL> /
Enter value for p_id: 102
Enter value for p_name: Udemy
Enter value for type: Commercial
Enter value for headquartes: USA
Enter value for founded: 2010
old 1: Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded')
new 1: Insert into Online_Moocs_Provider values(102,'Udemy','Commercial','USA','2010')

1 row created.

SQL> /
Enter value for p_id: 103
Enter value for p_name: Khanacadamy
Enter value for type: Non-profit
Enter value for headquartes: USA
Enter value for founded: 2006
old 1: Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded')
new 1: Insert into Online_Moocs_Provider values(103,'Khanacadamy','Non-profit','USA','2006')

1 row created.

SQL> /
Enter value for p_id: 104
Enter value for p_name: Coursera
Enter value for type: Commercial
Enter value for headquartes: USA
Enter value for founded: 2012
old 1: Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded')
new 1: Insert into Online_Moocs_Provider values(104,'Coursera','Commercial','USA','2012')

1 row created.

```

```

SQL> /
Enter value for p_id: 105
Enter value for p_name: Udacity
Enter value for type: Commercial
Enter value for headquartes: USA
Enter value for founded: 2012
old 1: Insert into Online_Moocs_Provider values(&P_id,&P_name,&Type,&headquartes,&founded')
new 1: Insert into Online_Moocs_Provider values(105,'Udacity','Commercial','USA','2012')

1 row created.

```


DBMS ASSIGNMENT 1

```
SQL> select * from Online_MOOCs_provider;
```

P_ID	P_NAME	TYPE	HEADQUARTERS
FOUNDED			
101 2017	SWAYAM	Non-profit	India
102 2010	Udemy	Commercial	USA
103 2006	Khanacademy	Non-profit	USA
P_ID	P_NAME	TYPE	HEADQUARTERS
FOUNDED			
104 2012	Coursera	Commercial	USA
105 2012	Udacity	Commercial	USA

```
SQL Plus
```

```
SQL> desc assignments;
```

Name	Null?	Type
A_ID		NUMBER(5)
C_ID		NUMBER(5)
DEADLINE		VARCHAR2(20)
SCORE		CHAR(20)

```
SQL> alter table assignments add primary key(A_id);
```

```
Table altered.
```

```
SQL> desc assignments;
```

Name	Null?	Type
A_ID	NOT NULL	NUMBER(5)
C_ID		NUMBER(5)
DEADLINE		VARCHAR2(20)
SCORE		CHAR(20)

```
SQL> alter table results add foreign key(A_id) references assignments;
alter table results add foreign key(A_id) references assignments
```

```
ERROR at line 1:
ORA-00904: "A_ID": invalid identifier
```

```
SQL> alter table results add (A_id Number(5));
```

```
Table altered.
```

```
SQL> alter table results add foreign key(A_id) references assignments;
```

```
Table altered.
```

```
SQL> desc results;
```

Name	Null?	Type
S_ID		NUMBER(5)
C_ID		NUMBER(5)
SCORE		VARCHAR2(20)
GRADE		CHAR(20)
A_ID		NUMBER(5)

```
SQL> desc student;
```

Name	Null?	Type
S_ID	NOT NULL	NUMBER(5)
FIRST_NAME		VARCHAR2(20)
LAST_NAME		VARCHAR2(20)
USER_NAME		VARCHAR2(10)
PASSWORD		VARCHAR2(10)
PRICE		NUMBER(3,2)

```
SQL> alter table students drop column price;
```

```
alter table students drop column price
```

```
ERROR at line 1:
```

Windows taskbar showing search bar, task icons, and system tray with date 12-02-2020 and time 06:56.

DBMS ASSIGNMENT 1

```
SQL> insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price);
Enter value for c_id: 2
Enter value for c_name: DAA
Enter value for duration: 8weeks
Enter value for min_grade: D
Enter value for status: yes
Enter value for price: 1000
old 1: insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price)
new 1: insert into courses values(2,'DAA','8weeks','D','yes',1000)
```

1 row created.

```
SQL> /
Enter value for c_id: 3
Enter value for c_name: SocialNetworking
Enter value for duration: 10weeks
Enter value for min_grade: C
Enter value for status: No
Enter value for price: 1500
old 1: insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price)
new 1: insert into courses values(3,'SocialNetworking','10weeks','C','No',1500)
```

1 row created.

```
SQL> /
Enter value for c_id: 4
Enter value for c_name: AI
Enter value for duration: 20weeks
Enter value for min_grade: D
Enter value for status: yes
Enter value for price: 3500
old 1: insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price)
new 1: insert into courses values(4,'AI','20weeks','D','yes',3500)
```

1 row created.

```
SQL> /
Enter value for c_id: 5
Enter value for c_name: C_programming
Enter value for duration: 8weeks
Enter value for min_grade: E
Enter value for status: yes
Enter value for price: free
old 1: insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price)
new 1: insert into courses values(5,'C_programming','8weeks','E','yes',free)
insert into courses values(5,'C_programming','8weeks','E','yes',free)
```

ERROR at line 1:
ORA-00984: column not allowed here

```
SQL> /
Enter value for c_id: 5
Enter value for c_name: C_programming
```

```
SQL> /
Enter value for c_id: 5
Enter value for c_name: C_programming
Enter value for duration: 8weeks
Enter value for min_grade: E
Enter value for status: yes
Enter value for price: 0
old 1: insert into courses values(&c_id,&c_name','&duration','&min_grade','&status',&price)
new 1: insert into courses values(5,'C_programming','8weeks','E','yes',0)
```

1 row created.

```
SQL> select *from courses;
```

C_ID	C_NAME	DURATION	MIN_GRADE	STATUS
2	DAA	8weeks	D	yes
1000				
3	SocialNetworking	10weeks	C	No
1500				
4	AI	20weeks	D	yes
3500				
5	C_programming	8weeks	E	yes
0				
1	DBMS	12weeks	D	YES
1200				

DBMS ASSIGNMENT 1

SQL Plus

```

61 Abhiraj          dusari          dusariabhi @bhir@j

SQL> insert into student values (&s_id,&first_name','&last_name','&user_name','&password');
Enter value for s_id: 72
Enter value for first_name: Hemanth
Enter value for last_name: Sherla
Enter value for user_name: sherla001
Enter value for password: hem@nth
old 1: insert into student values (&s_id,&first_name','&last_name','&user_name','&password')
new 1: insert into student values (72,'Hemanth','Sherla','sherla001','hem@nth')

1 row created.

SQL> /
Enter value for s_id: 83
Enter value for first_name: mohammad
Enter value for last_name: razzaq
Enter value for user_name: mrzzaq
Enter value for password: r@zz@q
old 1: insert into student values (&s_id,&first_name','&last_name','&user_name','&password')
new 1: insert into student values (83,'mohammad','razzaq','mrzzaq','r@zz@q')

1 row created.

SQL> /
Enter value for s_id: 94
Enter value for first_name: mallik
Enter value for last_name: reddy
Enter value for user_name: saimallik
Enter value for password: s@im@llik
old 1: insert into student values (&s_id,&first_name','&last_name','&user_name','&password')
new 1: insert into student values (94,'mallik','reddy','saimallik','s@im@llik')

1 row created.

SQL> /
Enter value for s_id: 105
Enter value for first_name: sujitha
Enter value for last_name: tadi
Enter value for user_name: sujithatadi
Enter value for password: sujith@
old 1: insert into student values (&s_id,&first_name','&last_name','&user_name','&password')
new 1: insert into student values (105,'sujitha','tadi','sujithatadi','sujith@')
insert into student values (105,'sujitha','tadi','sujithatadi','sujith@')
*
ERROR at line 1:
ORA-12899: value too large for column "HEMANTH"."STUDENT"."USER_NAME" (actual:
11, maximum: 10)

SQL> /
Enter value for s_id: 105
Enter value for first_name: sujitha
Enter value for last_name: tadi
Enter value for user_name: tsujitha
Enter value for password: sujith@
old 1: insert into student values (&s_id,&first_name','&last_name','&user_name','&password')
new 1: insert into student values (105,'sujitha','tadi','tsujitha','sujith@')

1 row created.

SQL> select *from student;

   S_ID FIRST_NAME      LAST_NAME      USER_NAME      PASSWORD
-----
    61 Abhiraj          dusari          dusariabhi @bhir@j
    72 Hemanth          Sherla          sherla001      hem@nth
    83 mohammad          razzaq          mrzzaq         r@zz@q
    94 mallik            reddy           saimallik      s@im@llik
   105 sujitha          tadi            tsujitha       sujith@

SQL> desc enrolls;
Name                               Null?    Type
-----

```

```
YEAR                                NUMBER(5)

SQL> insert into enrolls values(&s_id,&c_id,&year);
Enter value for s_id: 72
Enter value for c_id: 4
Enter value for year: 2018
old 1: insert into enrolls values(&s_id,&c_id,&year)
new 1: insert into enrolls values(72,4,2018)

1 row created.

SQL> /
Enter value for s_id: 94
Enter value for c_id: 5
Enter value for year: 2020
old 1: insert into enrolls values(&s_id,&c_id,&year)
new 1: insert into enrolls values(94,5,2020)

1 row created.

SQL> /
Enter value for s_id: 105
Enter value for c_id: 3
Enter value for year: 2019
old 1: insert into enrolls values(&s_id,&c_id,&year)
new 1: insert into enrolls values(105,3,2019)

1 row created.

SQL> /
Enter value for s_id: 61
Enter value for c_id: 1
Enter value for year: 2019
old 1: insert into enrolls values(&s_id,&c_id,&year)
new 1: insert into enrolls values(61,1,2019)

1 row created.

SQL> /
Enter value for s_id: 83
Enter value for c_id: 2
Enter value for year: 2019
old 1: insert into enrolls values(&s_id,&c_id,&year)
new 1: insert into enrolls values(83,2,2019)

1 row created.

SQL> select * from enrolls;

  S_ID    C_ID    YEAR
-----
    72      4    2018
    94      5    2020
   105      3    2019
    61      1    2019
    83      2    2019
```

DBMS ASSIGNMENT 1

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SQL> insert into assgnments values(&a_id,&c_id,'&deadline','&score');
Enter value for a_id: 101
Enter value for c_id: 4
Enter value for deadline: 12-2-2018
Enter value for score: 100
old 1: insert into assgnments values(&a_id,&c_id,'&deadline','&score')
new 1: insert into assgnments values(101,4,'12-2-2018','100')
insert into assgnments values(101,4,'12-2-2018','100')
*
ERROR at line 1:
ORA-00942: table or view does not exist

SQL> insert into assignments values(&a_id,&c_id,'&deadline','&score');
Enter value for a_id: 101
Enter value for c_id: 4
Enter value for deadline: 12-02-2018
Enter value for score: 100
old 1: insert into assignments values(&a_id,&c_id,'&deadline','&score')
new 1: insert into assignments values(101,4,'12-02-2018','100')

1 row created.

SQL> /
Enter value for a_id: 102
Enter value for c_id: 5
Enter value for deadline: 11-02-2020
Enter value for score: 100
old 1: insert into assignments values(&a_id,&c_id,'&deadline','&score')
new 1: insert into assignments values(102,5,'11-02-2020','100')

1 row created.

SQL> /
Enter value for a_id: 105
Enter value for c_id: 3
Enter value for deadline:
Enter value for score:
old 1: insert into assignments values(&a_id,&c_id,'&deadline','&score')
new 1: insert into assignments values(105,3,'','')

1 row created.

SQL> /
Enter value for a_id: 61
Enter value for c_id: 1
Enter value for deadline: 15-02-2019
Enter value for score: 80
old 1: insert into assignments values(&a_id,&c_id,'&deadline','&score')
new 1: insert into assignments values(61,1,'15-02-2019','80')

1 row created.

```

```

SQL> update assignments SET '&deadline' where a_id=105 and c_id=3;
Enter value for deadline: 12-02-2019
old 1: update assignments SET '&deadline' where a_id=105 and c_id=3
new 1: update assignments SET '12-02-2019' where a_id=105 and c_id=3
update assignments SET '12-02-2019' where a_id=105 and c_id=3
*
ERROR at line 1:
ORA-01747: invalid user.table.column, table.column, or column specification

SQL> update assignments SET deadline ='&deadline' where a_id=105 and c_id=3;
Enter value for deadline: 12-08-2019
old 1: update assignments SET deadline ='&deadline' where a_id=105 and c_id=3
new 1: update assignments SET deadline ='12-08-2019' where a_id=105 and c_id=3

1 row updated.

SQL> update assignments SET score =&score where a_id=105 and c_id=3;
Enter value for score: 100
old 1: update assignments SET score =&score where a_id=105 and c_id=3
new 1: update assignments SET score =100 where a_id=105 and c_id=3

1 row updated.

SQL> delete from assignments where a_id=23;

1 row deleted.

SQL> select * from assignments;

   A_ID    C_ID DEADLINE    SCORE
-----
    101         4 12-02-2018      100
    102         5 11-02-2020      100
    105         3 12-08-2019      100
     61         1 15-02-2019       80
     83         2 20-02-2019       75

```

DBMS ASSIGNMENT 1

```

SQL> desc results;
Name                                Null?    Type
-----
S_ID                                NUMBER(5)
C_ID                                NUMBER(5)
SCORE                              VARCHAR2(20)
GRADE                              CHAR(20)
A_ID                                NUMBER(5)

SQL> insert into results values(&s_id,&c_id,'&score','&char',&a_id);
Enter value for s_id: 72
Enter value for c_id: 4
Enter value for score: 92
Enter value for char: A
Enter value for a_id: 101
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(72,4,'92','A',101)

1 row created.

SQL> /
Enter value for s_id: 94
Enter value for c_id: 5
Enter value for score: 82
Enter value for char: B
Enter value for a_id: 102
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(94,5,'82','B',102)

1 row created.

SQL> /
Enter value for s_id: 105
Enter value for c_id: 3
Enter value for score: 95
Enter value for char: A
Enter value for a_id: 105
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(105,3,'95','A',105)

1 row created.

SQL> /
Enter value for s_id: 61
Enter value for c_id: 1
Enter value for score: 91
Enter value for char: A
Enter value for a_id: 61
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(61,1,'91','A',61)

1 row created.

SQL> /
Enter value for s_id: 83
Enter value for c_id: 2
Enter value for score: 67
Enter value for char: D
Enter value for a_id: 83
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(83,2,'67','D',83)

1 row created.

SQL> select_

```

DBMS ASSIGNMENT 1

```

SQL> insert into results values(&s_id,&c_id,'&score','&char',&a_id);
Enter value for s_id: 72
Enter value for c_id: 4
Enter value for score: 92
Enter value for char: A
Enter value for a_id: 101
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(72,4,'92','A',101)

1 row created.

SQL> /
Enter value for s_id: 94
Enter value for c_id: 5
Enter value for score: 82
Enter value for char: B
Enter value for a_id: 102
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(94,5,'82','B',102)

1 row created.

SQL> /
Enter value for s_id: 105
Enter value for c_id: 3
Enter value for score: 95
Enter value for char: A
Enter value for a_id: 105
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(105,3,'95','A',105)

1 row created.

SQL> /
Enter value for s_id: 61
Enter value for c_id: 1
Enter value for score: 91
Enter value for char: A
Enter value for a_id: 61
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(61,1,'91','A',61)

1 row created.

SQL> /
Enter value for s_id: 83
Enter value for c_id: 2
Enter value for score: 67
Enter value for char: D
Enter value for a_id: 83
old 1: insert into results values(&s_id,&c_id,'&score','&char',&a_id)
new 1: insert into results values(83,2,'67','D',83)

1 row created.

SQL> select * from results;

  S_ID    C_ID SCORE      GRADE      A_ID
-----
    72      4  92         A        101
    94      5  82         B        102
   105      3  95         A        105
    61      1  91         A         61
    83      2  67         D         83

```