AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

Summer 2021-2022

Section: L

Introduction to database project:

School Management System

Supervised By

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Submitted By

Group 7

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School Management System

Introduction

We are trying to make a primary school management system, so we decided to build a school management system with oracle SQL developer. We tried to solve the school data management problems automatically by the software.

Scenario

In the school management system, we will include students of every class, every class has one class teacher assigned but there are many teachers in school who will also in employee and teachers' group. That teacher must be in under a department. Department has employees, teachers and other staff. Students will be in a specific branch of the school. In the department table, we will include all the necessary employees who are involved in schoolwork. Every employee has detailed information about the salary, commission, communication detail etc. There will be teacher information and teacher details like salary, department etc. Mainly we highlight employees and their job, class, teacher, library. All the people in a school are in person entity. To be a student, teacher, member you must be a person of the school with any department. If any ore are not in person of a school, then he or she will not be a part of school. This management system can manage more than one branch of the school and thousands of students, teacher, employees and this can keep all the information for future use.

Context

Normalization

ENROLLS

UNF: S-ID, S-Phone, S-Dob, S-name, School-id, Email, Class, Zip, City, Country, Numbers, Building number, class, Class-ID, Room number, Section

1NF: S-id, S-phone, S-dob, S-name, School-id, Email, Class, Zip, City, Country, S.id, Building number, Class,Class-ID, Room number, Section

2NF: i) S-id, S-phone, S-dob, S-name, School-id, Email, Zip, City, Country

ii) Room number, Building number, Class-id, section, Class, S-ID(fk)

3NF: i) S-id, S-phone, S-dob, S-name, School-id, Email.

ii) City, Zip, Country

iii) Room number, Building number, Class-ID, Section, S-ID(fk)

TAKES:

UNF: T. Phone, T.ID, T. Name, Class.ID, Class, Building number, Emp.No, C. Id, Subject, Address, Zip, City, Country, Email, Room.no, S.id, Section

1NF: T.ID, T. Name,T.Phone, Room.no, S.id, Section, Class.ID, Class, Building number, Emp.No, C. Id, Subject, Email, Zip, City, Country

2NF: i) Room.no, S.id, Section, Class.ID, Class, Building number

ii) T. Phone, T.ID, T. Name, Emp.No,Subject, Address, Email, Zip, City, Country, Class.ID(fk)

iii) T.ID, Class_ID(fk)

3NF:

i) Class.ID, Class, Room.no, S.id, Section, Building number
ii) Zip, City, Country Zip, City, Country
iii) T. Phone, T.ID, T. Name,Emp.No, Class. Id(fk), Subject, Address, Email
iv) T.ID, Class.Id(fk)

HAS:

UNF: S. Phone, S. Name, School ID, S. Date,Email, Address, City, Zip, Country, S.B. Number, Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date

1NF: S. Phone, S. Name, School ID, S. Date, Email,City, Zip, Country, S.B. Number, Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date

2NF:

i) S. Phone, S. Name, School ID, S. Date,Email, City, Zip, Country, S.B. Number
ii) E.Name, E. Job, Emp.No, Comm, Dept No, Billing Number, Room No, Salary, School ID (fk), Joining Date

3NF:

i) S. Phone, S. Name, School ID, S. Date,Email, City, Zip, Country, S.B. Number
ii) Zip, City, Country
iii) E.Name,E. Job, Emp.No, Comm, Dept No, Billing Number, Room No, Salary, School ID (fk), Joining Date

IS A

UNF: Emp. No, C. Id, Subject, Address, Zip, City, Country, Email, T. Phone, T.ID, T. Name, Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date

1NF: Emp. No, C. Id, Subject, Zip, City, Country, Email, T. Phone, T.ID, T. Name, Billing Number, E. Job, Comm, Dept No, E. Name, Room No, Emp.No, Salary, School Id, Joining Date

2NF:

i) T. Phone, T.ID, T. Name ,Emp. No, C. Id, Subject, Zip, City, Country, Email
ii) Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date,T.ID(fk)
iii) Emp.No, T.ID(fk)

3NF:

i) Emp. No, C. Id, Subject, Zip, City, Country, Email, T. Phone, T.ID, T. Name
ii) Zip, City, Country
iii) Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date,T.ID(fk)
iv) Emp. No, T.ID(fk)

HAS:

UNF: L.ID, Job, School ID, L.ID, Book. ID, B. Self, B. Date, Book Name, Block

1NF: L.ID, Job, School ID, L.ID, Book. ID, B. Self, B. Date, Book Name, Block

2NF:

i) L.ID, Job, School ID
ii) Book. ID, B. Self, B. Date, Book Name, Block, L.ID (fk)

3NF: SAME AS 2NF

HAS:

UNF: L.ID, School id, job, M.ID, M.Name, M.Date, L.Id

1NF: L.ID, school id, job, M.ID, M.Name, M.Date, L.Id

2NF:

i) L.ID, school id, job
ii) M.ID, M.Name, M.Date, L.ID(fk)

3NF:

i) L.ID, school id, job
ii) M.ID, M.Name, M.Date, L.ID(fk)
iii) M.ID L.ID(fk)

Belongs To:

UNF: P.no, P.name, P.job, S.phone, Email, Class, s.Id, s.name, Address, zip, city, country, s.dob, school id

1NF: P.no, P.name, P.job, S. phone, Email, Class, s.Id, s.name, zip, city, country, s.dob, school id

2NF:

i) P.No, P.Name, P.job
ii) S. phone, Email, Class, S. Id, s.name, zip, city, country, s.dob, school id, P.No (fk)

3NF:

i) P.no, P.name, P.job
ii) zip, city, country
iii) S. phone, Email, Class, S.Id, s.name, s.dob, school id, P.No (fk)
iv) S. Id ,P. no(fk)

Has:

UNF: P.no, P.name, P.job, L. Id, Job, School id

1NF: P.no, P.name, P.job, L. Id, Job, School id

2NF:

i) P.No, P.Name, P.job
ii) L.Id, job, school id, P.No (fk)

3NF: SAME AS 2NF

Belongs To:

UNF: P.No, P.Name, P.job, L.id, M.id, M.name, M. date

1NF: P.No, P.Name, P.job, L.id, M.id, M.name, M. date

2NF:

i) P.no, P.name, P.job
ii) L.id, M.id, M.name, M. date,P.No(fk)

3NF: SAME AS 2NF

Belongs To:

UNF: S. phone, Email, Class, S.id, S.name, Address, Zip, City, Country, S.dob, School id, T.name, T.id, T. phone, Email, Address, Zip, City, Country, Subject, c.id, empno

1NF: S. phone, Email, Class, S.id, S.name, Zip, City, Country, S.dob, School id, T.name, T.id, T. phone, Subject, c.id, empno

2NF:

i) S. phone, email, class, S.id, s.name, zip, city, country, s.dob, school id
ii) T.Name, T.Id, T. phone, Subject, C.id, Empno, S.id (fk)

3NF:

i) s. phone, email, class, s.id, s.name, s.dob, school id
ii) zip, city, country
iii) T.Name, T.Id, T. phone, Subject, C.id, Empno, S.id (fk)

IN:

UNF: S. phone, s.name, School id, S. date,Email Address, zip, city, country, S.B. Number, Room No, S.Id , Section, Class id, Class, Building number

1NF: S. phone, s.name, School id, S. date,Email, zip, city, country, S.B. Number, Room No, S.Id , Section, Class id, Class, Building number

2NF:

i) S. phone, S.name, School id, S. date,Email zip, city, country, S.B. Number
ii) Room No, Section, Class id, Class, Building number,School.Td(fk)

3NF:

i) Email, S. phone, s.name, school id, S. date, S.B. Number
ii) zip, city, country
iii) Room No, S. Id(fk), Section, Class id, Class, Building number

Finalization

i) S-id, S-phone, S-dob, S-name, School-id, Email.

ii) City, Zip, Country

iii) Room number, Building number, Class-ID, Section, S-ID(fk)

Iv) Class.ID, Class, Room.no, S.id, Section, Building number

V) T. Phone, T.ID, T. Name,Emp.No, Class. Id(fk), Subject, Address, Email

vi) T.ID, Class.Id(fk)

viii) S. Phone, S. Name, School ID, S. Date,Email, City, Zip, Country, S.B. Number

ix) E.Name,E. Job, Emp.No, Comm, Dept No, Billing Number, Room No, Salary, School ID (fk), Joining Date

x) Emp. No, C. Id, Subject, Zip, City, Country, Email, T. Phone, T.ID, T. Name

xi) Billing Number, E. Job, Emp.No, Comm, Dept No, E. Name, Room No, Salary, School Id, Joining Date,T.ID(fk)

xii) Emp. No, T.ID(fk)

xiii) L.ID, Job, School ID

xiv) Book. ID, B. Self, B. Date, Book Name, Block, L.ID (fk)

xv) M.ID, M.Name, M.Date, L.ID(fk)

xvi) M.ID L.ID(fk)

xvii) S. phone, Email, Class, S.Id, s.name, s.dob, school id, P.No (fk)

xviii) S. Id ,P. no(fk)

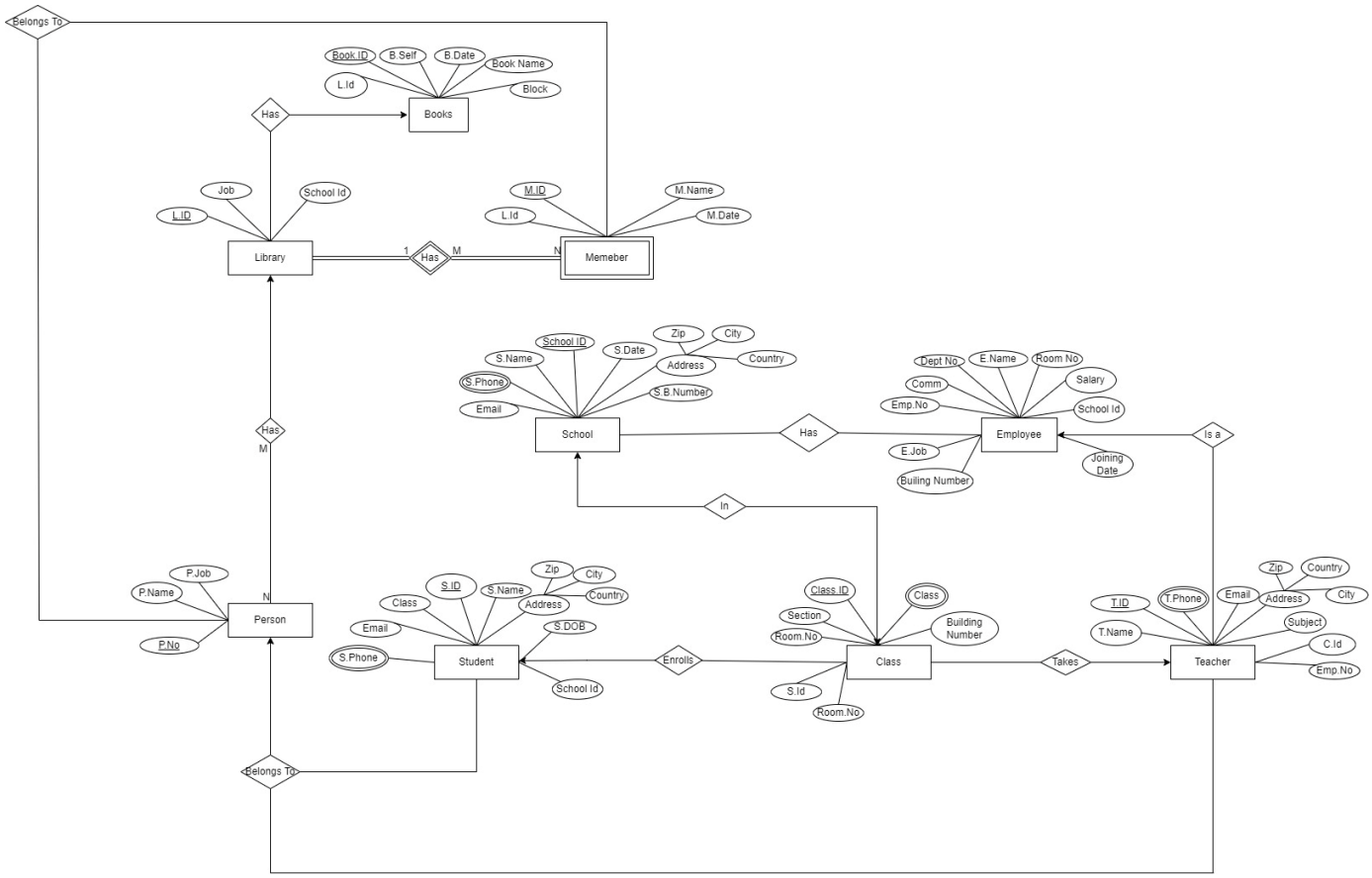
xix) P.No, P.Name, P.job

xx) L.Id, job, school id, P.No (fk)

xxi) S. phone, email, class, s.id, s.name, s.dob, school id

xxii) Room No, S. Id(fk), Section, Class id, Class, Building number

ER Diagram


Belongs To
Book ID
B.Self
B.Date
Book Name
L.Id
Block
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Books
Job
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M.ID
M.Name
L.Id
M.Date
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S.ID
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S.Name
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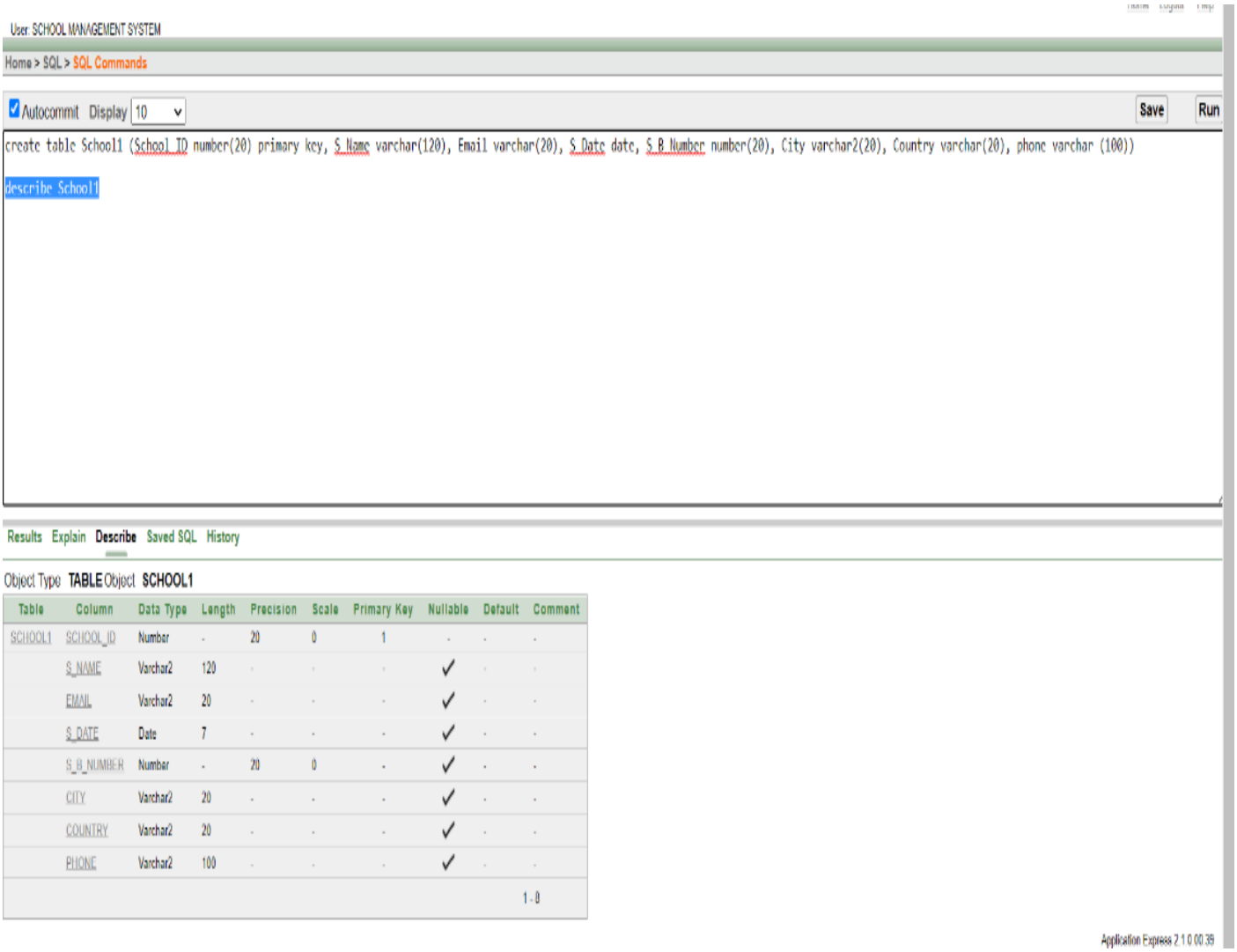
S.DOB
S.Phone
Student
Enrolls
Class.ID
Class
Section
Room.No
Building Number
Class
S.Id
Room.No
Takes
T.ID
T.Phone
Zip
Country
Email
Address
City
T.Name
Subject
C.Id
Emp.No
Teacher
Belongs To

Table Creation

SCHOOL1 TABLE



SCHCLASS3 TABLE

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

ome > SQL > SQL Commands

Autocommit Display 10

```
create table SchClass3 (SId number (20) ,classId number (10),constraint ci foreign key (classId) references SchClass2 (classId))

describe SchClass3
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **SCHCLASS3**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SCHCLASS3	SID	Number	-	20	0	-	✓	-	-
	CLASSID	Number	-	10	0	-	✓	-	-

1 - 2

SCHCLASS2 TABLE

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
create table SchClass2 ( roomNumber number(10),BuildingNumber number(10),classId number (10)primary key,section number(10))

describe SchClass2
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **SCHCLASS2**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SCHCLASS2	ROOMNUMBER	Number	-	10	0	-	✓	-	-
	BUILDINGNUMBER	Number	-	10	0	-	✓	-	-
	CLASSID	Number	-	10	0	1	-	-	-
	SECTION	Number	-	10	0	-	✓	-	-

1 - 4

SCHCLASS1 TABLE

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
create table SchClass1
 (SchID number(20),
  SchName varchar2(25),
SDob varchar2 (25),
Sdate date,SId number(20)primary key,email varchar2(100),class varchar2(10),city varchar2 (20),SGender varchar2(10))

describe SchClass1
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **SCHCLASS1**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SCHCLASS1	SCHID	Number	-	20	0	-	✓	-	-
	SCHNAME	Varchar2	25	-	-	-	✓	-	-
	SDOB	Varchar2	25	-	-	-	✓	-	-
	SDATE	Date	7	-	-	-	✓	-	-
	SID	Number	-	20	0	1	-	-	-
	EMAIL	Varchar2	100	-	-	-	✓	-	-
	CLASS	Varchar2	10	-	-	-	✓	-	-
	CITY	Varchar2	20	-	-	-	✓	-	-
	SGENDER	Varchar2	10	-	-	-	✓	-	-

1 - 9

PM3 TABLE

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
create table PM3 (PId number (10) ,MId number (10),constraint pi foreign key (MId) references PM2 (MId))

describe PM3
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **PM3**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PM3	PID	Number	-	10	0	-	✓	-	-
	MID	Number	-	10	0	-	✓	-	-

1 - 2

PM2 TABLE

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

lome > SQL > SQL Commands

Autocommit Display 10

```
create table PM2 (MId number (20)primary key,CId number (10), MName varchar2(15),MDate date)

describe PM2
```

Results Explain Describe Saved SQL History

Object Type **TABLE** Object **PM2**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PM2	MID	Number	-	20	0	1	-	-	-
	CID	Number	-	10	0	-	✓	-	-
	MNAME	Varchar2	15	-	-	-	✓	-	-
	MDATE	Date	7	-	-	-	✓	-	-

1 - 4

PM1 TABLE

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
create table PM1 ( PId number (10) primary key, PName varchar2(20),PJob varchar2(10))

describe PM1
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **PM1**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
PM1	PID	Number	-	10	0	1	-	-	-
	PNAME	Varchar2	20	-	-	-	✓	-	-
	PJOB	Varchar2	10	-	-	-	✓	-	-

1 - 3

MM TABLE

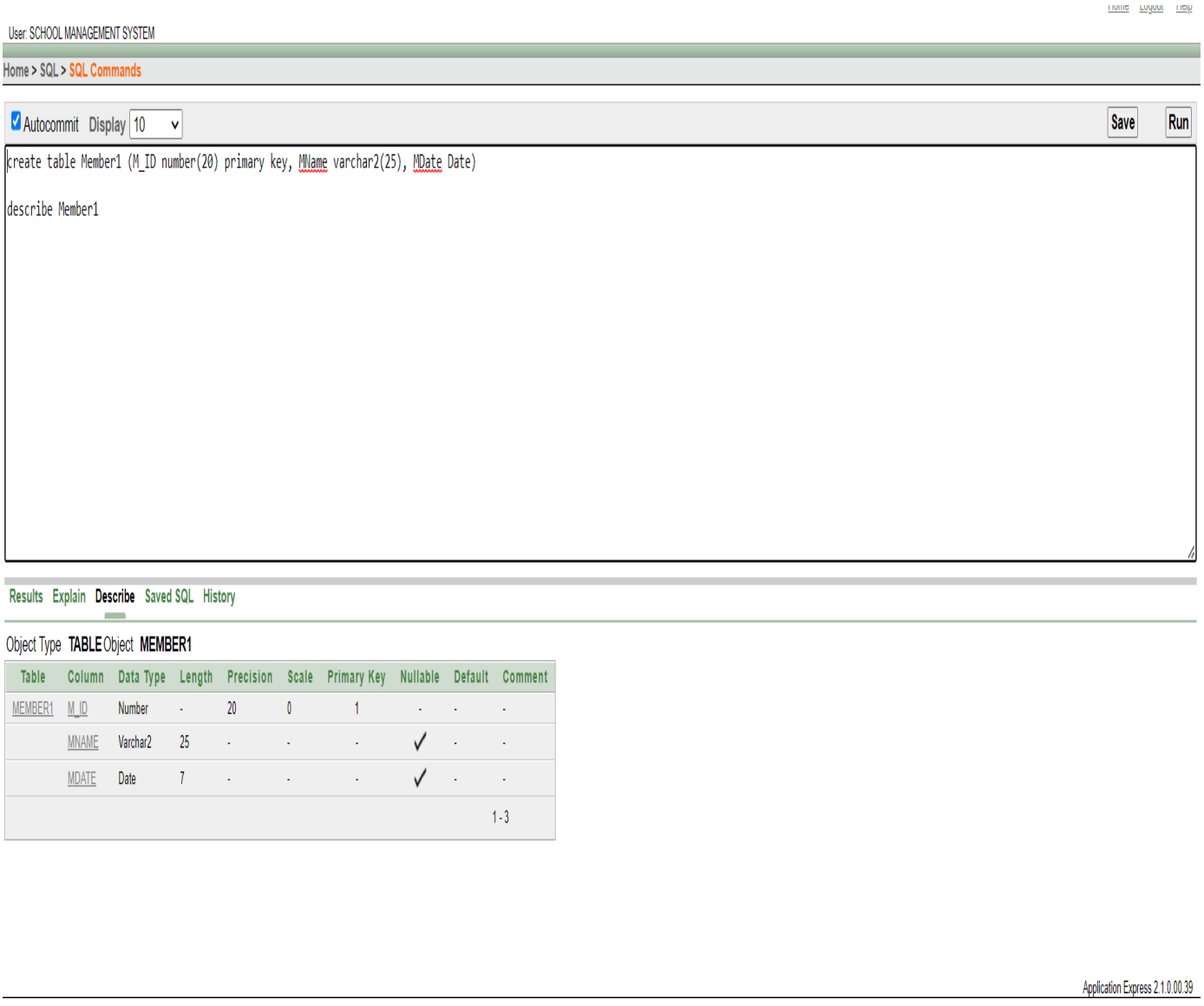
```
create table mm (PId number(15) primary key, Sid number(15), constraint si foreign key (Sid) references SchClass1(Sid))
describe mm
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **MM**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MM	PID	Number	-	15	0	1	-	-	-
	SID	Number	-	15	0	-	✓	-	-
									1 - 2

MEMBER1 TABLE



LIBRARY1 TABLE

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10 Save Run

```
create table Library1 (L_Id number(20) primary key, School_ID number(20), Job varchar2(10))

describe Library1
```

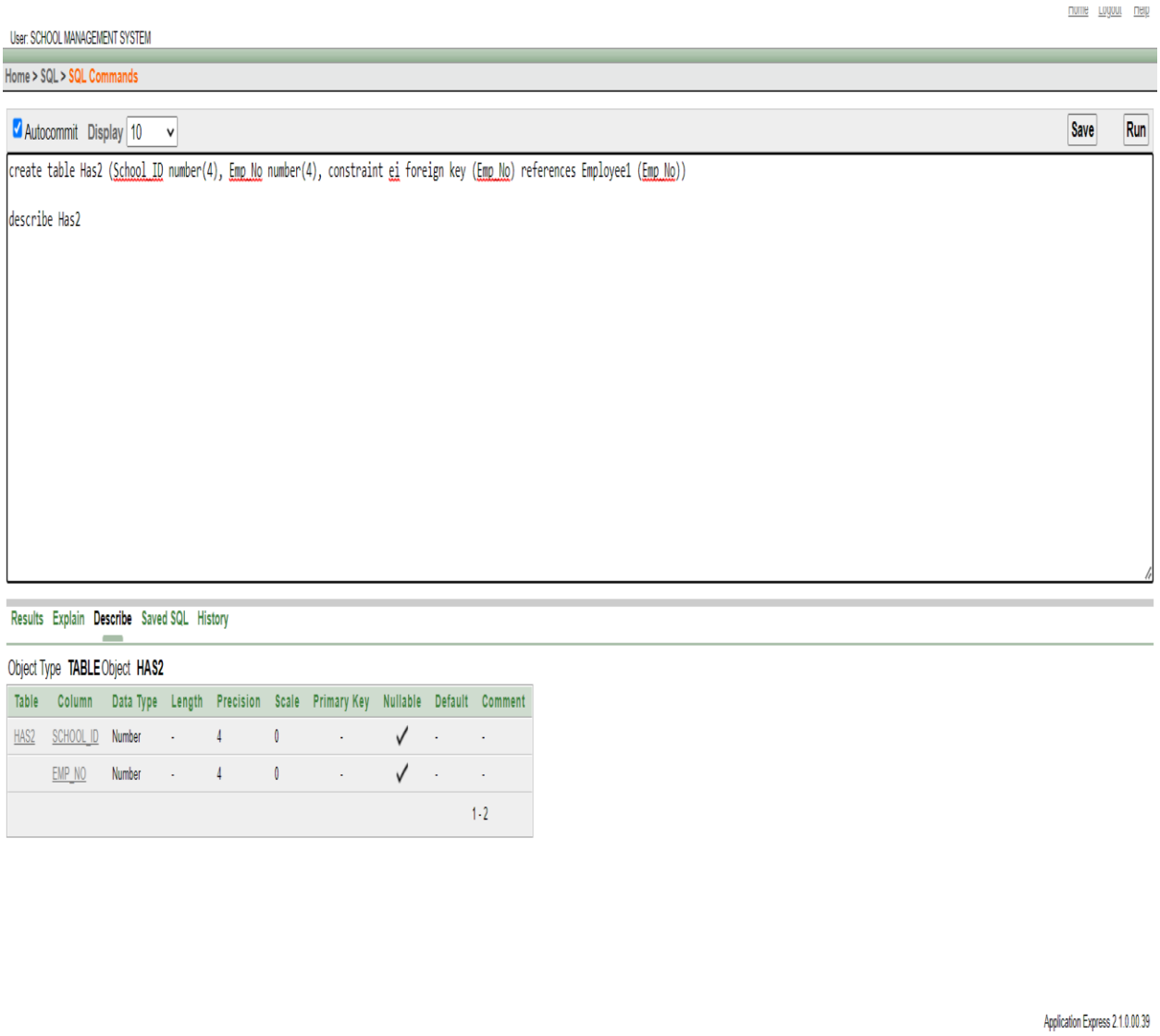
Results Explain Describe Saved SQL History

Object Type TABLE Object LIBRARY1

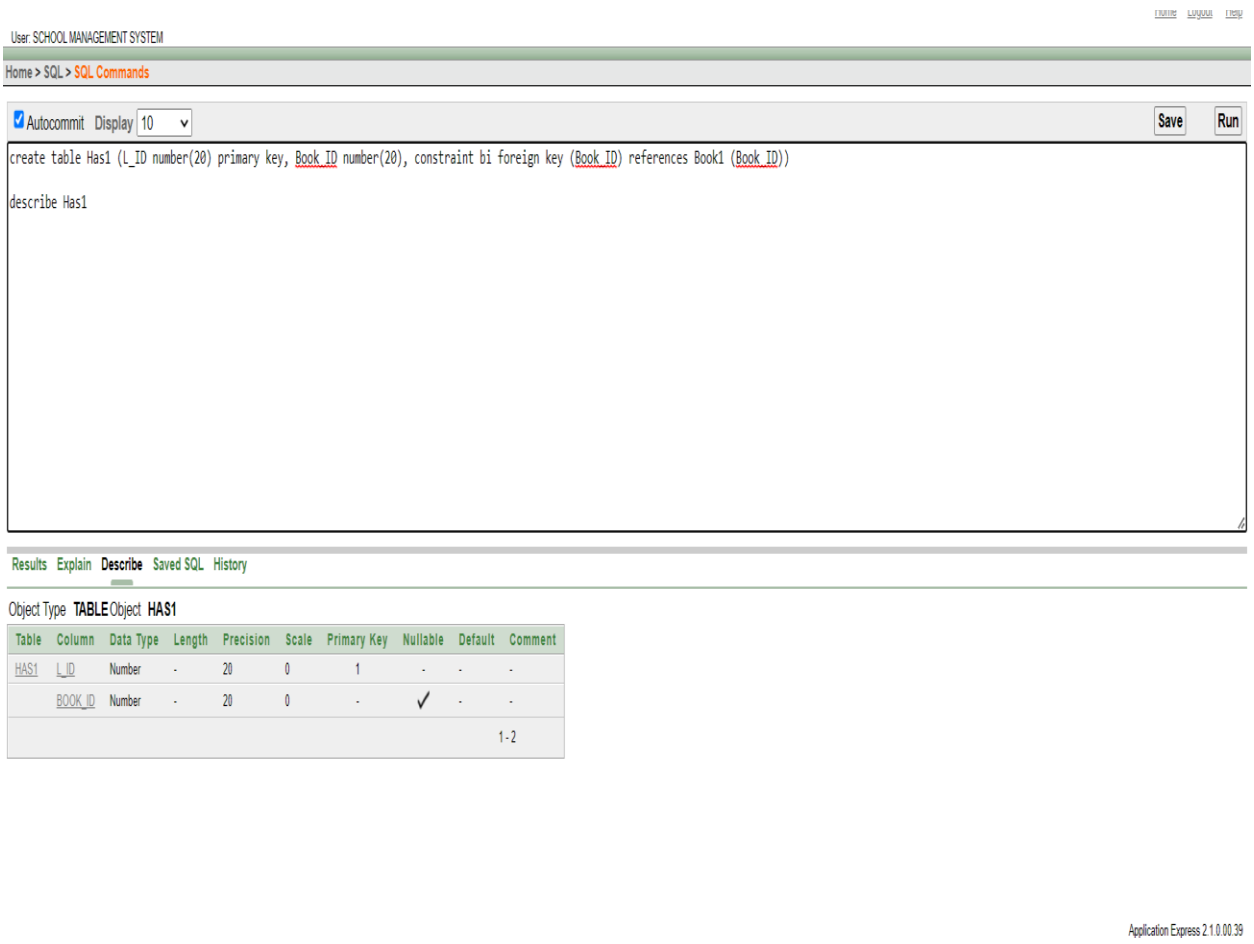
Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
LIBRARY1	L_ID	Number	-	20	0	1	-	-	-
	SCHOOL_ID	Number	-	20	0	-	✓	-	-
	JOB	Varchar2	10	-	-	-	✓	-	-

1 - 3

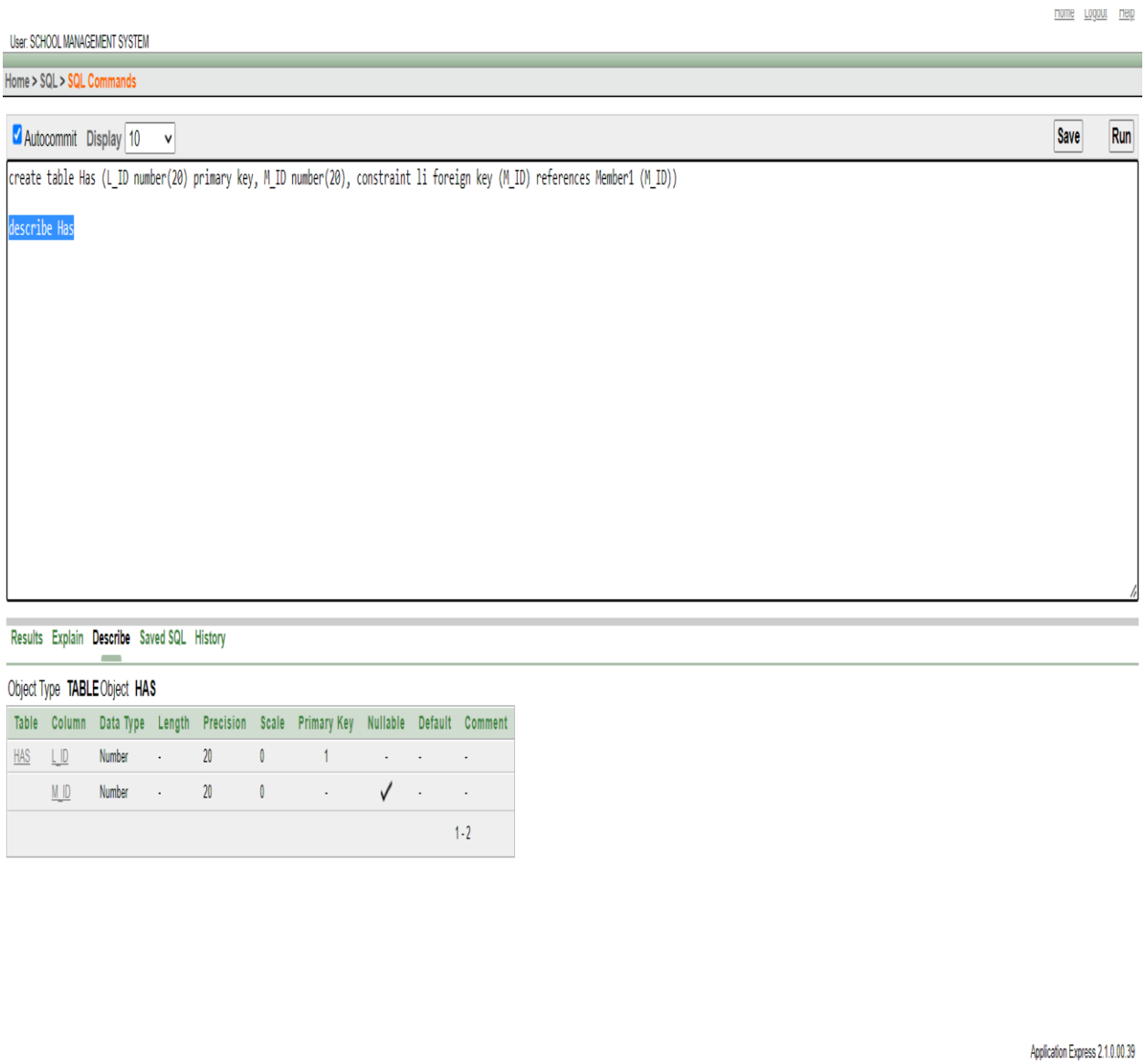
HAS2 TABLE


Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save
Run
create table Has2 (School_ID number(4), Emp_No number(4), constraint ei foreign key (Emp_No) references Employee1 (Emp_No))
describe Has2
Results Explain Describe Saved SQL History
Object Type TABLE Object HAS2
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
HAS2 SCHOOL_ID Number - 4 0 - ✓ - -
EMP_NO Number - 4 0 - ✓ - -
1-2
Application Express 2.1.0.00.39

HAS1 TABLE


User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save
Run
create table Has1 (L_ID number(20) primary key, Book_ID number(20), constraint bi foreign key (Book_ID) references Book1 (Book_ID))
describe Has1
Results Explain Describe Saved SQL History
Object Type TABLE Object HAS1
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
HAS1 L_ID Number - 20 0 1 - - -
BOOK_ID Number - 20 0 - ✓ - -
1 - 2
Application Express 2.1.0.00.39

HAS TABLE


home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save
Run
create table Has (L_ID number(20) primary key, M_ID number(20), constraint li foreign key (M_ID) references Member1 (M_ID))
describe Has
Results Explain Describe Saved SQL History
Object Type TABLE Object HAS
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
HAS L_ID Number - 20 0 1 - - -
M_ID Number - 20 0 - ✓ - -
1-2
Application Express 2.1.0.00.39

MM TABLE

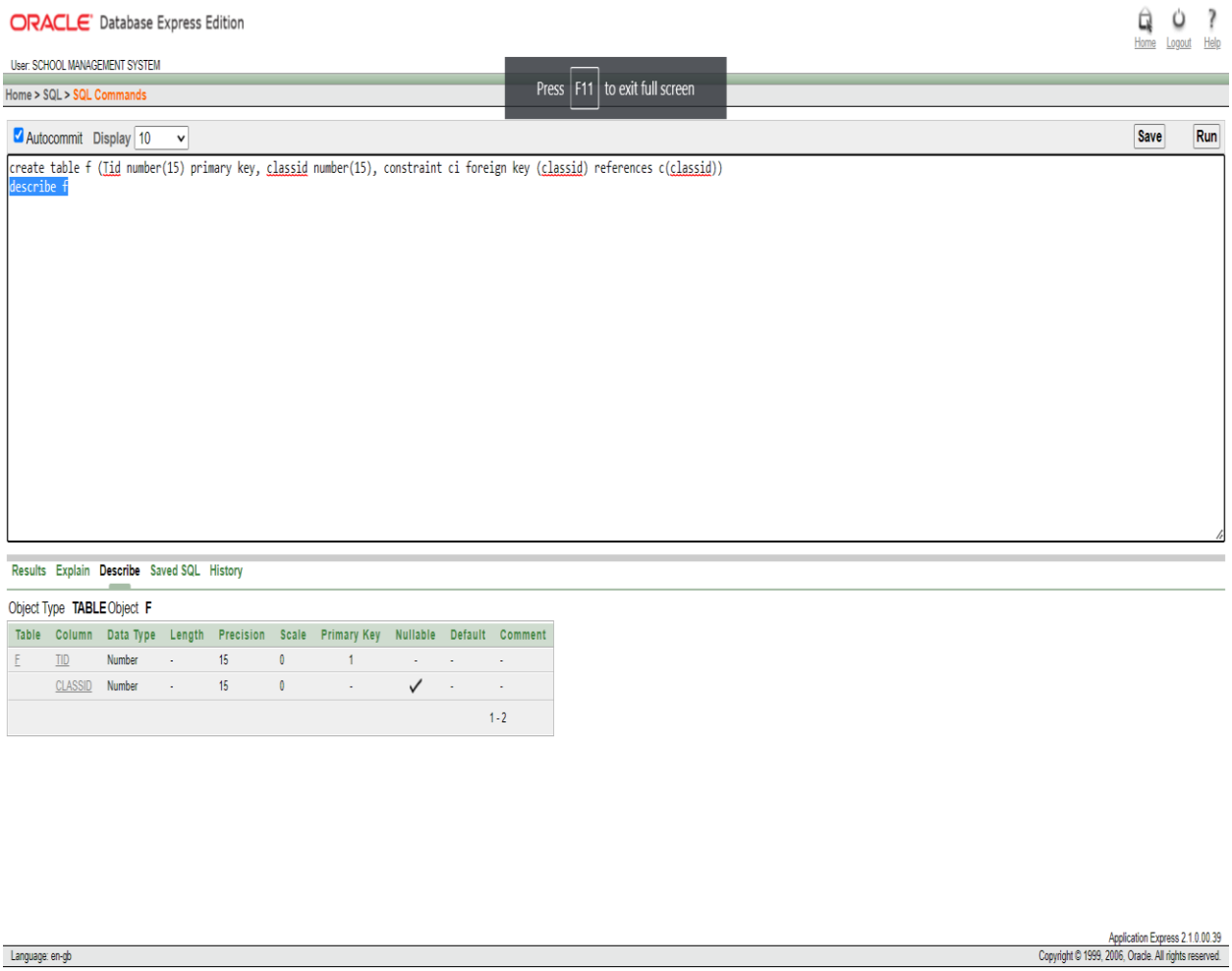
```
create table g (Tid number(15) primary key, PId number(15), constraint pn foreign key (PId) references PM1(PId))
describe g
```

Results Explain **Describe** Saved SQL History

Object Type **TABLE** Object **MM**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MM	PID	Number	-	15	0	1	-	-	-
	SID	Number	-	15	0	-	✓	-	-
									1 - 2

F TABLE


ORACLE Database Express Edition
Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Press F11 to exit full screen
Home > SQL > SQL Commands
Autocommit Display 10
Save
Run
create table f (Tid number(15) primary key, classid number(15), constraint ci foreign key (classid) references c(classid))
describe f
Results Explain Describe Saved SQL History
Object Type TABLE Object F
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
F TID Number - 15 0 1 - - -
CLASSID Number - 15 0 - ✓ - -
1 - 2
Application Express 2.1.0.00.39
Language: en-gb
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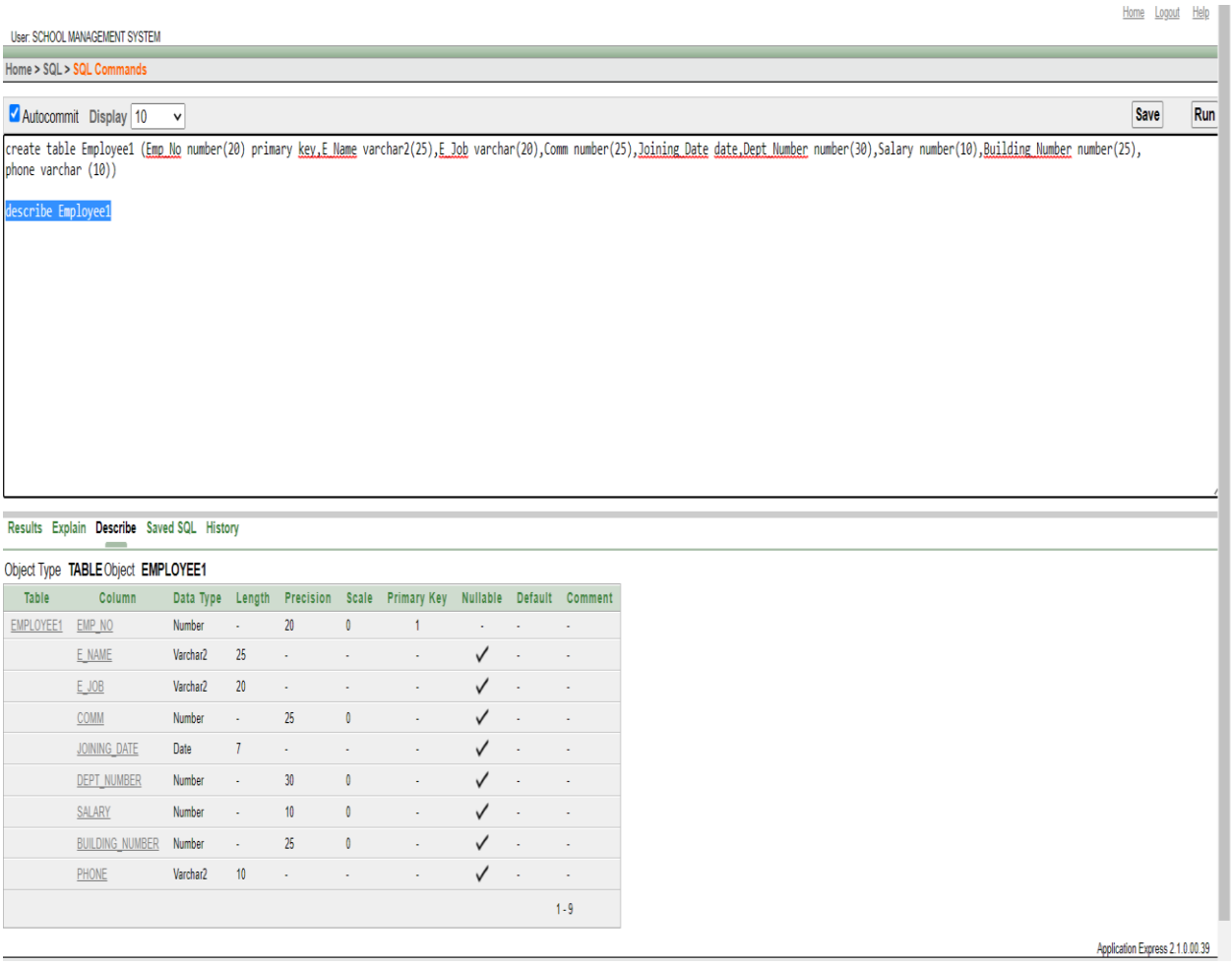
EMPLOYEE1 TABLE



Home Logout Help

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10 Save Run

```
create table Employee1 (Emp_No number(20) primary key,E_Name varchar2(25),E_Job varchar(20),Comm number(25),Joining_Date date,Dept_Number number(30),Salary number(10),Building_Number number(25),
phone varchar (10))

describe Employee1
```

Results Explain Describe Saved SQL History

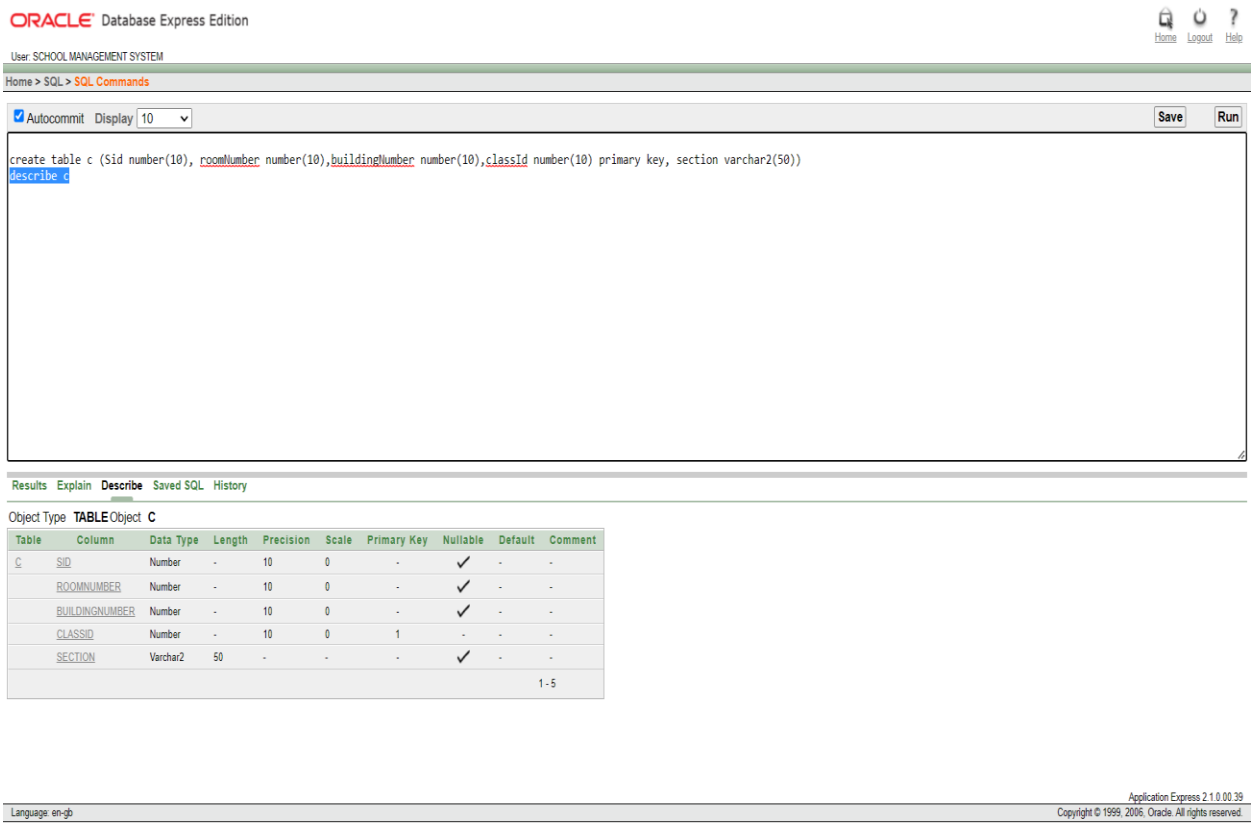
Object Type **TABLE** Object **EMPLOYEE1**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
EMPLOYEE1	EMP_NO	Number	-	20	0	1	-	-	-
	E_NAME	Varchar2	25	-	-	-	✓	-	-
	E_JOB	Varchar2	20	-	-	-	✓	-	-
	COMM	Number	-	25	0	-	✓	-	-
	JOINING_DATE	Date	7	-	-	-	✓	-	-
	DEPT_NUMBER	Number	-	30	0	-	✓	-	-
	SALARY	Number	-	10	0	-	✓	-	-
	BUILDING_NUMBER	Number	-	25	0	-	✓	-	-
	PHONE	Varchar2	10	-	-	-	✓	-	-

1 - 9

Application Express 2.1.0.00.39

C TABLE


ORACLE Database Express Edition
Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save Run
create table c (Sid number(10), roomNumber number(10),buildingNumber number(10),classId number(10) primary key, section varchar2(50))
describe c
Results Explain Describe Saved SQL History
Object Type TABLE Object C
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
C SID Number - 10 0 - ✓ - -
ROOMNUMBER Number - 10 0 - ✓ - -
BUILDINGNUMBER Number - 10 0 - ✓ - -
CLASSID Number - 10 0 1 - - -
SECTION Varchar2 50 - - - ✓ - -
1 - 5
Application Express 2.1.0.00.39
Language: en-gb
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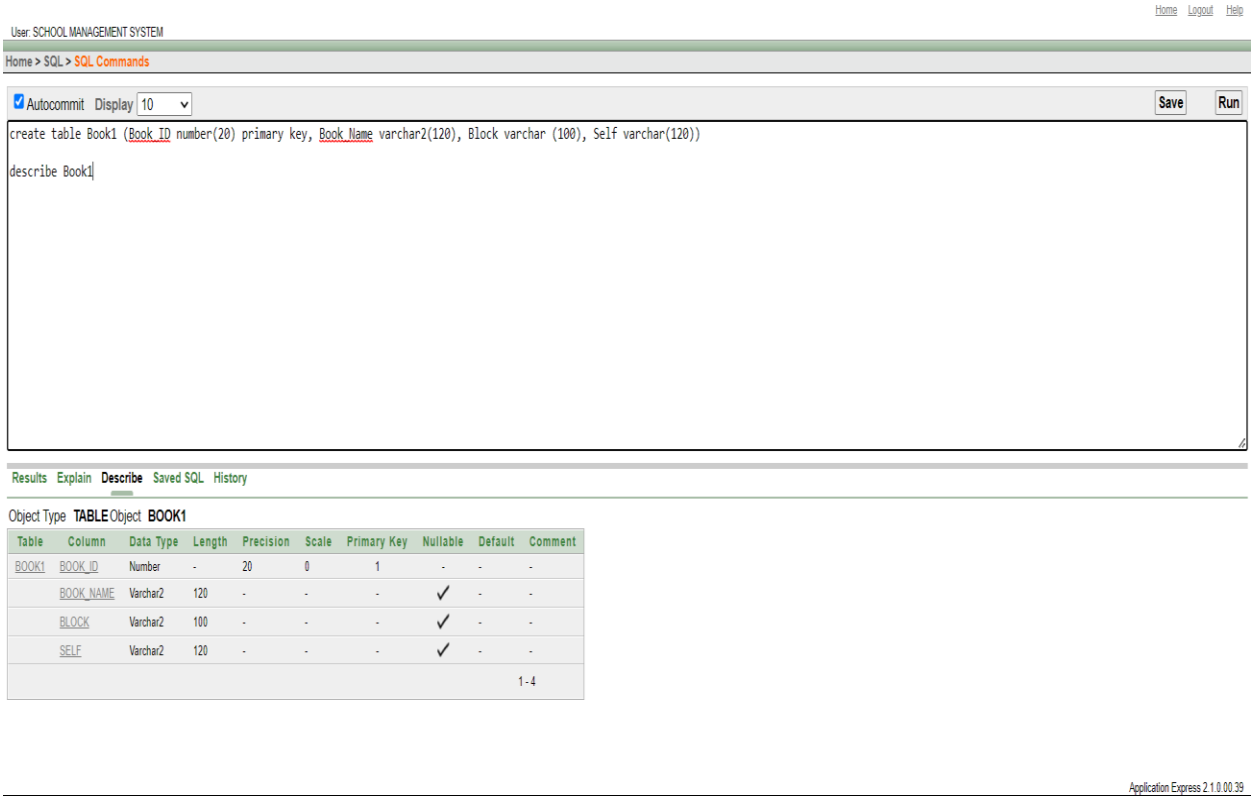
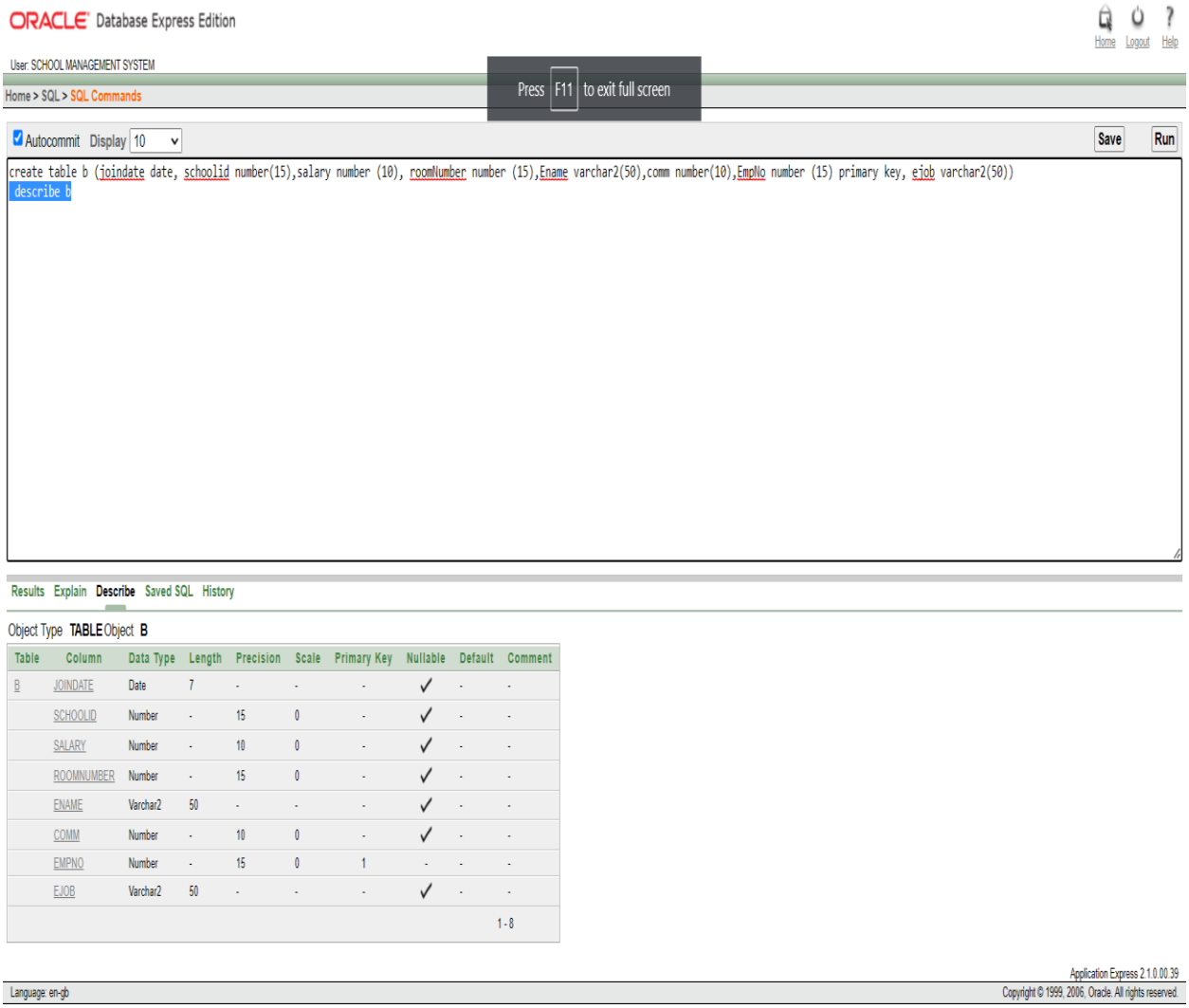
BOOK1 TABLE


Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save
Run
create table Book1 (Book_ID number(20) primary key, Book_Name varchar2(120), Block varchar (100), Self varchar(120))
describe Book1
Results Explain Describe Saved SQL History
Object Type TABLE Object BOOK1
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
BOOK1 BOOK_ID Number - 20 0 1 - - -
BOOK_NAME Varchar2 120 - - - ✓ - -
BLOCK Varchar2 100 - - - ✓ - -
SELF Varchar2 120 - - - ✓ - -
1 - 4
Application Express 2.1.0.00.39

B TABLE


ORACLE Database Express Edition
Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Press F11 to exit full screen
Home > SQL > SQL Commands
Autocommit Display 10
Save Run
create table b (joindate date, schoolid number(15),salary number (10), roomNumber number (15),Ename varchar2(50),comm number(10),EmpNo number (15) primary key, ejob varchar2(50))
describe b
Results Explain Describe Saved SQL History
Object Type TABLE Object B
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
B JOINDATE Date 7 - - - ✓ - -
SCHOOLID Number - 15 0 - ✓ - -
SALARY Number - 10 0 - ✓ - -
ROOMNUMBER Number - 15 0 - ✓ - -
ENAME Varchar2 50 - - - ✓ - -
COMM Number - 10 0 - ✓ - -
EMPNO Number - 15 0 1 - - -
EJOB Varchar2 50 - - - ✓ - -
1 - 8
Application Express 2.1.0.00.39
Language: en-gb
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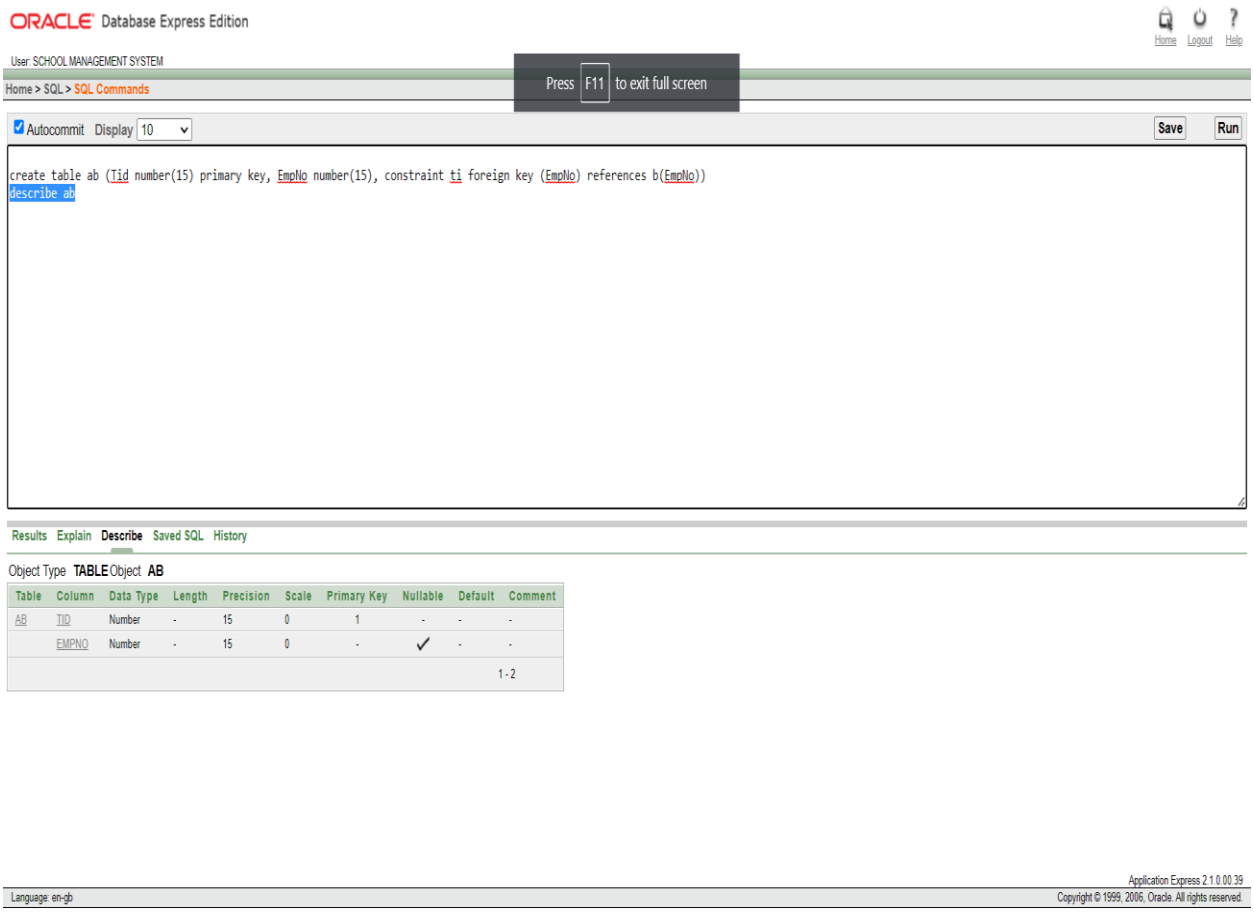
AB TABLE


ORACLE Database Express Edition
Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Press F11 to exit full screen
Autocommit Display 10
Save Run
create table ab (Tid number(15) primary key, EmpNo number(15), constraint ti foreign key (EmpNo) references b(EmpNo))
describe ab
Results Explain Describe Saved SQL History
Object Type TABLE Object AB
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
AB TID Number - 15 0 1 - - -
EMPNO Number - 15 0 - ✓ - -
1 - 2
Application Express 2.1.0.00.39
Language: en-gb
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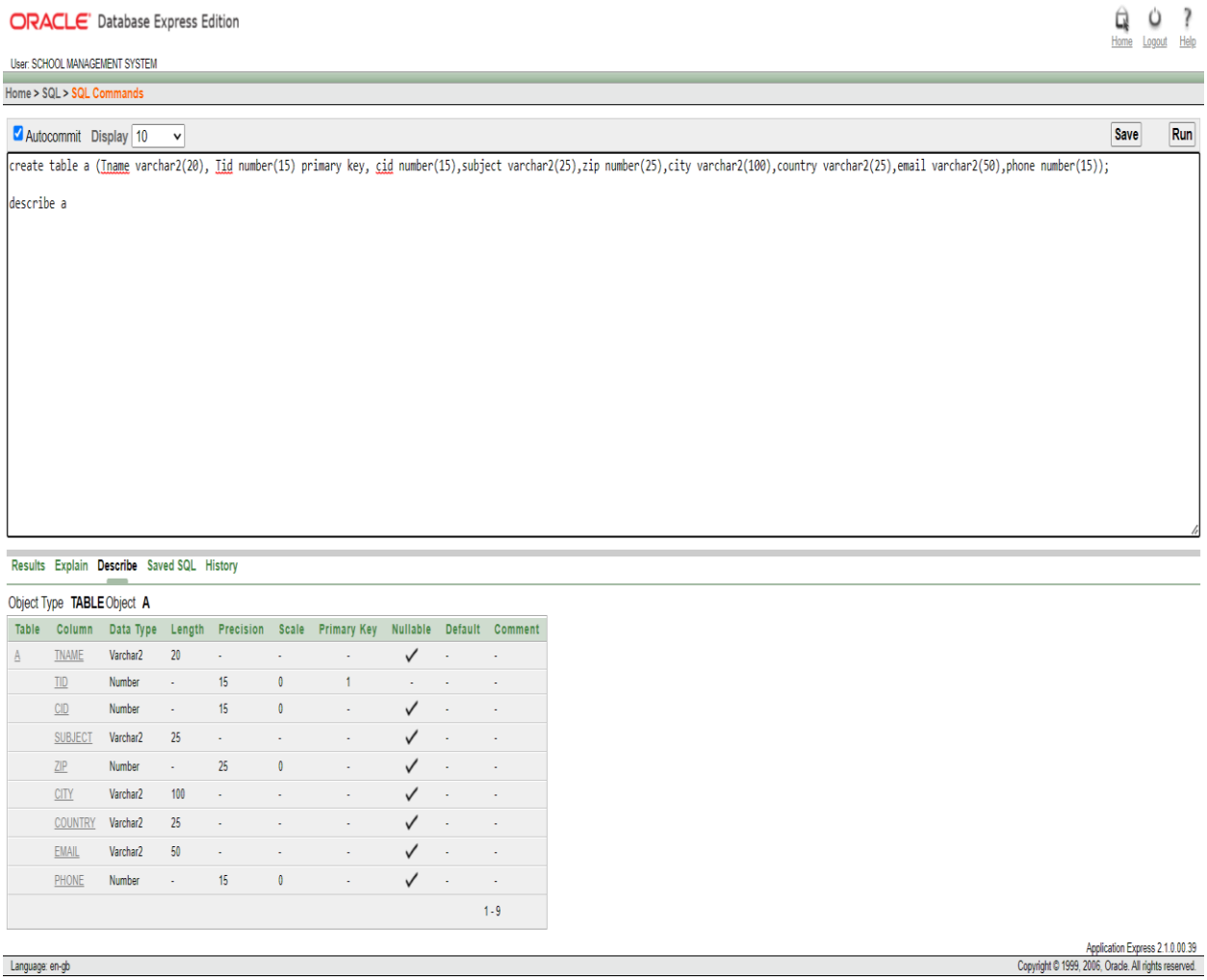
A TABLE


ORACLE Database Express Edition
Home Logout Help
User: SCHOOL MANAGEMENT SYSTEM
Home > SQL > SQL Commands
Autocommit Display 10
Save Run
create table a (Tname varchar2(20), Tid number(15) primary key, cid number(15),subject varchar2(25),zip number(25),city varchar2(100),country varchar2(25),email varchar2(50),phone number(15));
describe a
Results Explain Describe Saved SQL History
Object Type TABLE Object A
Table Column Data Type Length Precision Scale Primary Key Nullable Default Comment
A TNAME Varchar2 20 - - - ✓ - -
TID Number - 15 0 1 - - -
CID Number - 15 0 - ✓ - -
SUBJECT Varchar2 25 - - - ✓ - -
ZIP Number - 25 0 - ✓ - -
CITY Varchar2 100 - - - ✓ - -
COUNTRY Varchar2 25 - - - ✓ - -
EMAIL Varchar2 50 - - - ✓ - -
PHONE Number - 15 0 - ✓ - -
1 - 9
Application Express 2.1.0.00.39
Language: en-gb
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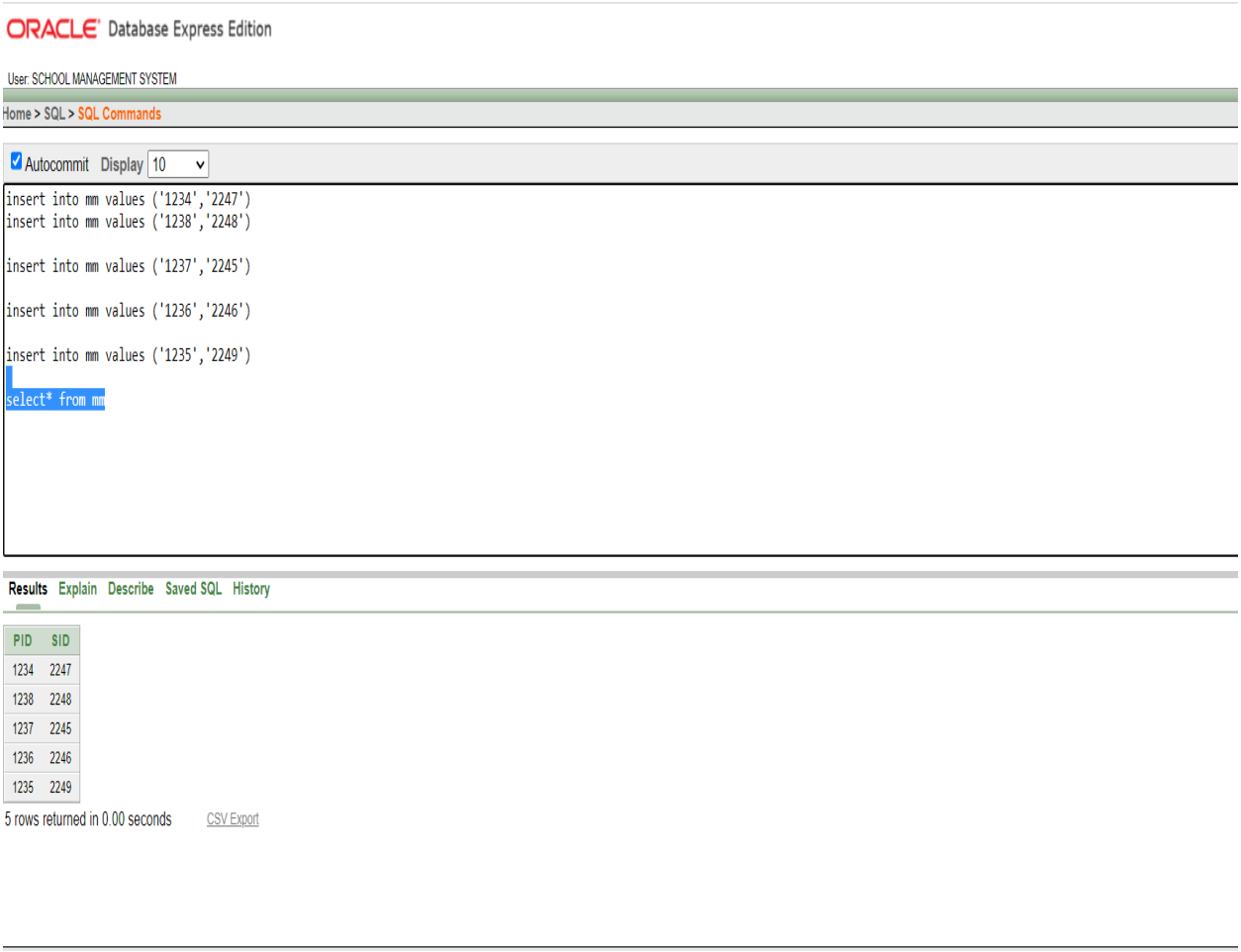
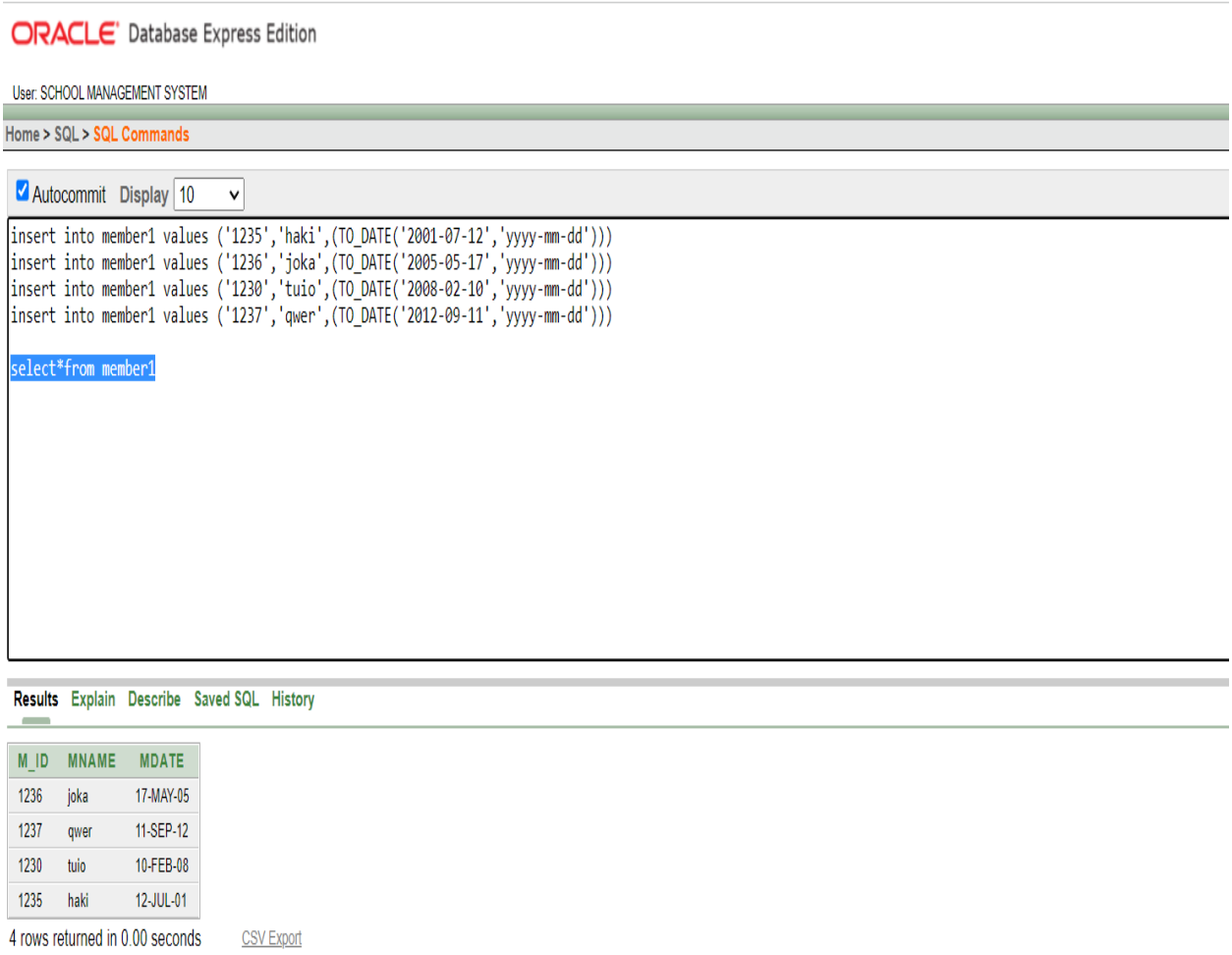
Value Insertion

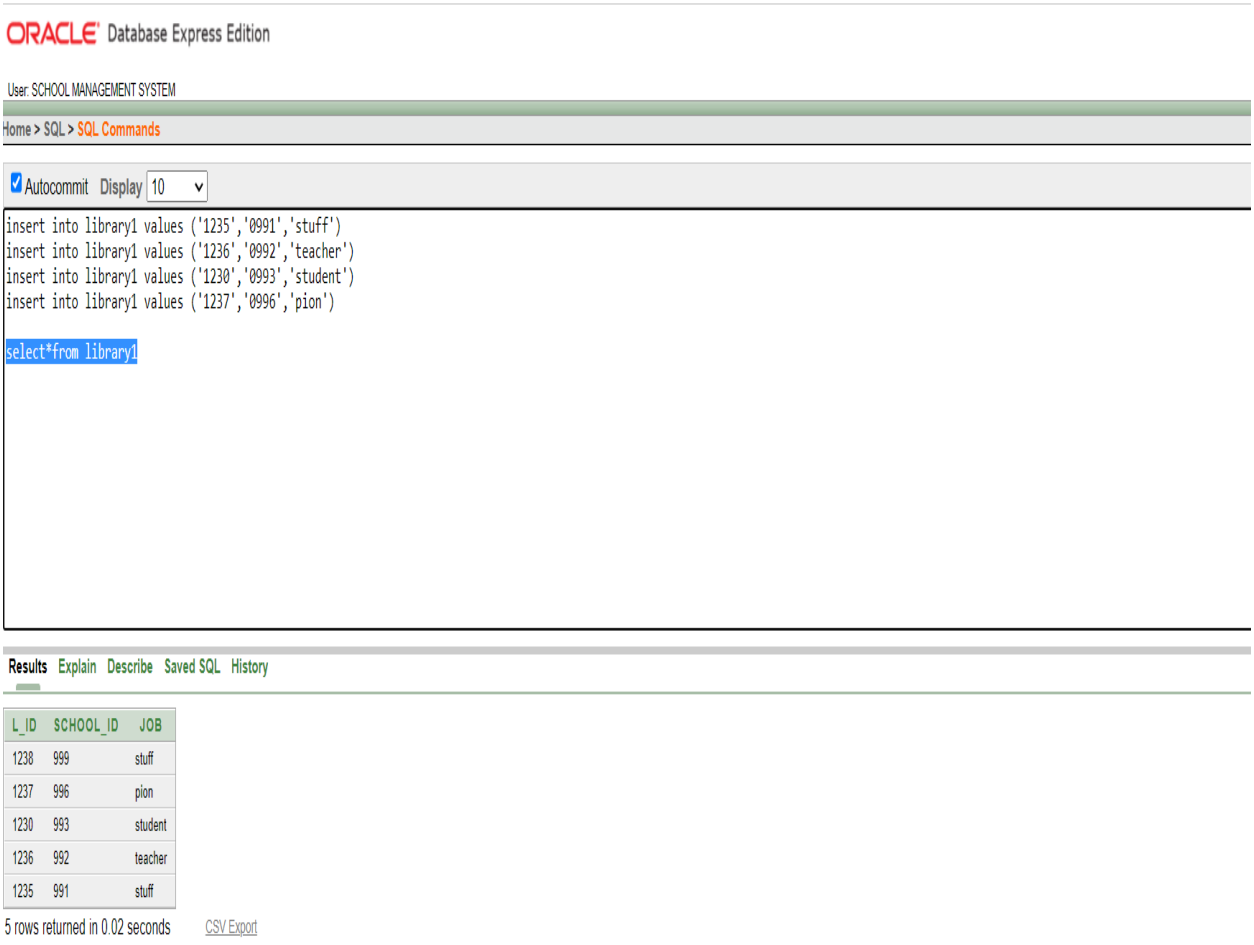
MM VALUE INSERT



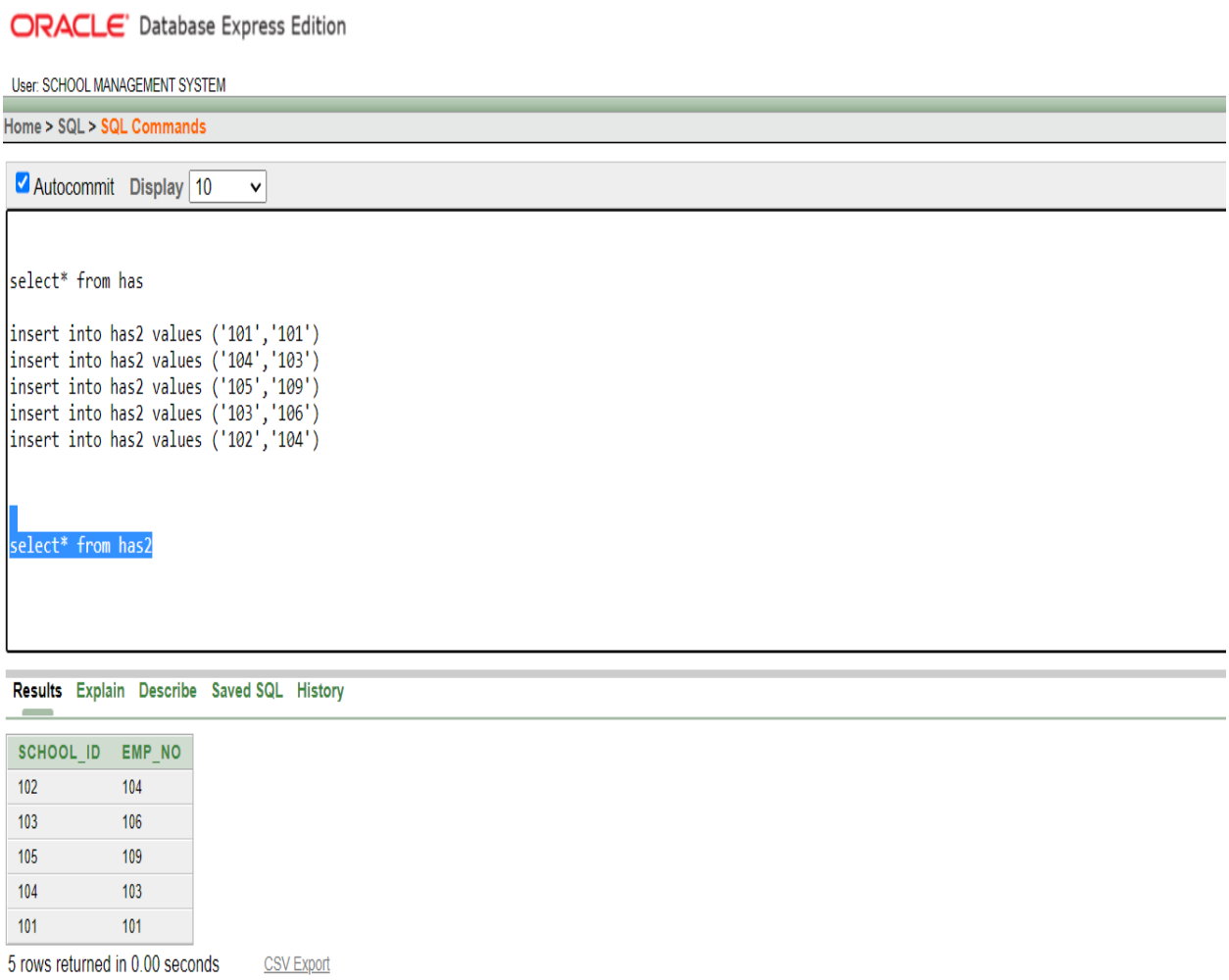
MEMBER1 VALUE INSERT



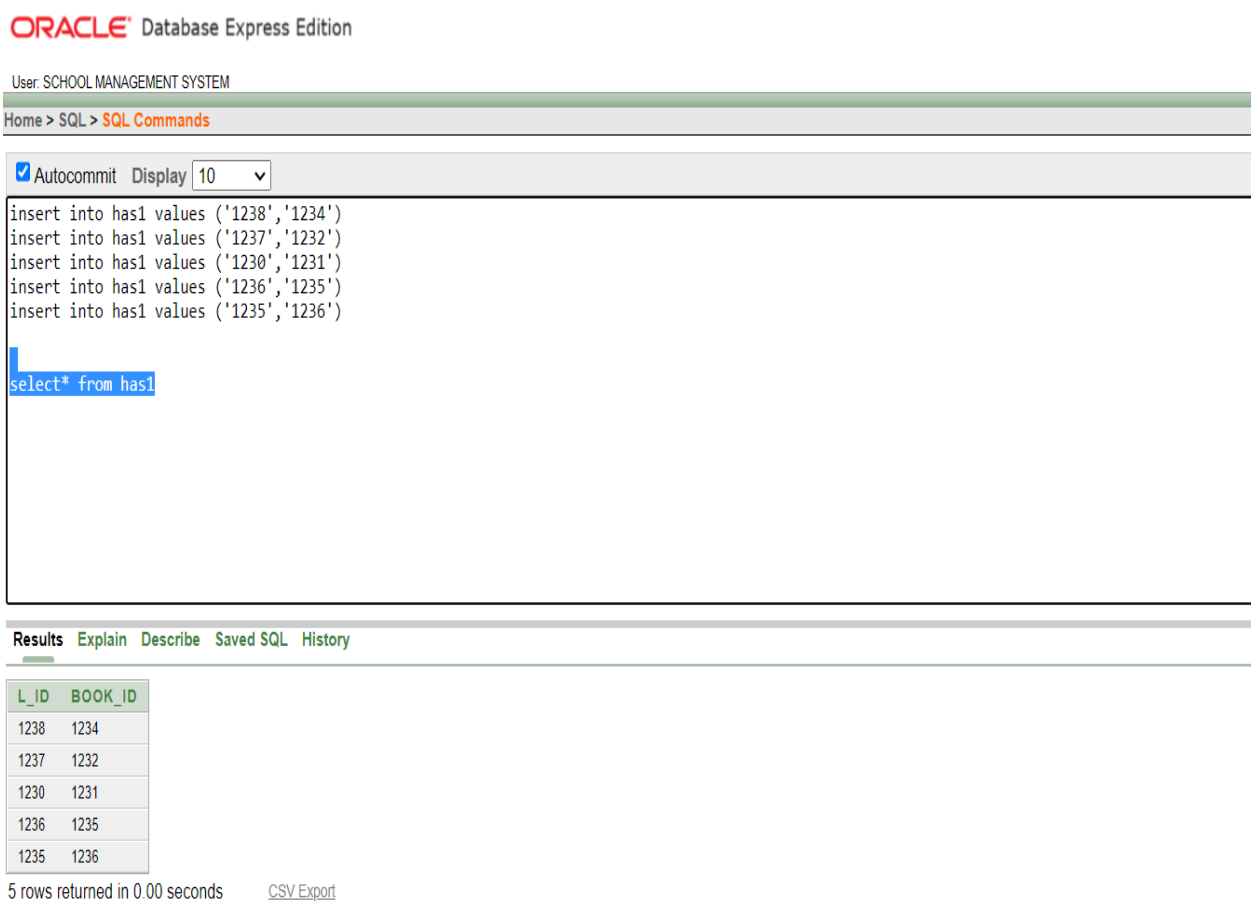
LIBRARY1 VALUE INSERT



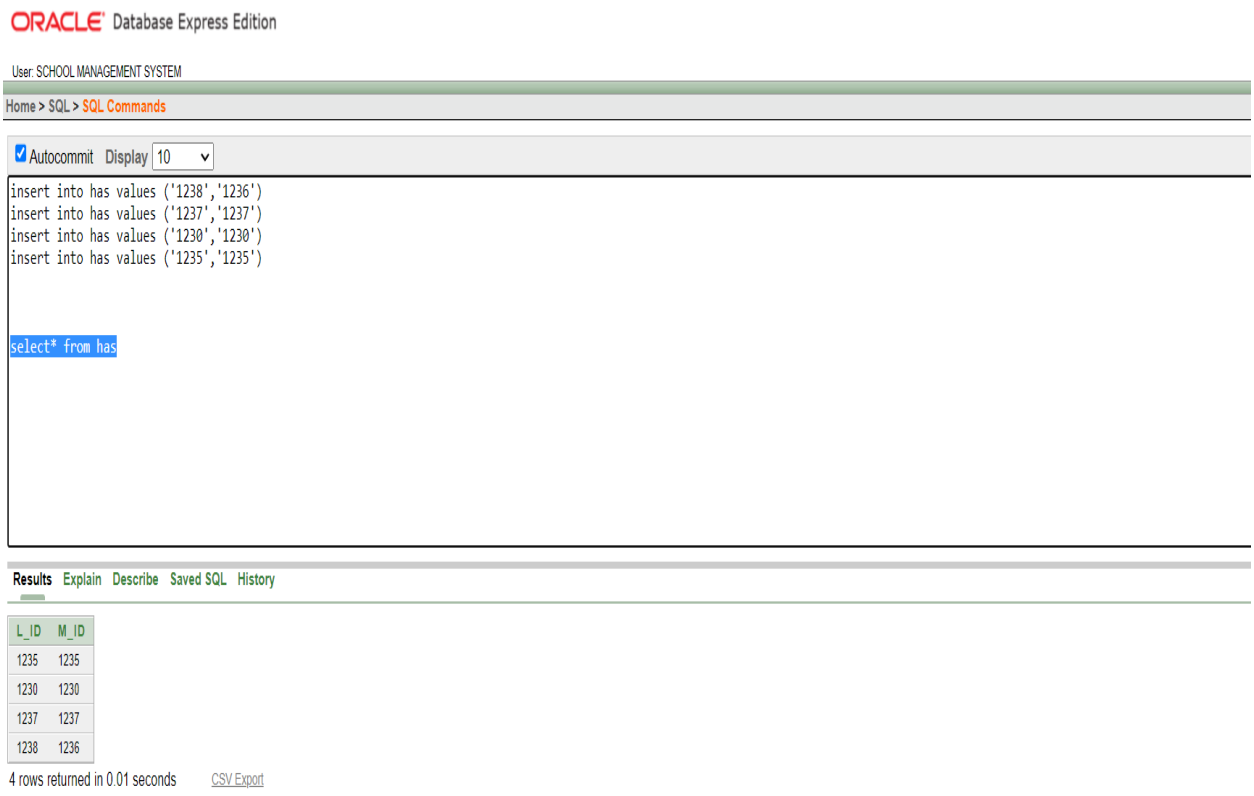
HAS2 VALUE INSERT



HAS1 VALUE INSERT



HAS VALUE INSERT



G VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into g values ('1234','1234')
insert into g values ('1235','1238')

insert into g values ('1237','1237')
insert into g values ('1238','1236')
insert into g values ('1294','1235')


select* from g
```

Results Explain Describe Saved SQL History

TID	PID
1234	1234
1235	1238
1237	1237
1238	1236
1294	1235

5 rows returned in 0.00 seconds CSV Export

EMPLOYEE1 VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into employee1 values ('103','rahim','librarian','500',(TO_DATE('1997-07-12','yyyy-mm-dd')),'100','6000','2','01743543')
insert into employee1 values ('109','jasim','pion','500',(TO_DATE('1997-07-12','yyyy-mm-dd')),'100','6000','2','01874354')

insert into employee1 values ('106','asif','pion','509',(TO_DATE('1998-07-12','yyyy-mm-dd')),'100','6000','2','01874353')
insert into employee1 values ('104','mosak','pion','899',(TO_DATE('1999-07-12','yyyy-mm-dd')),'100','6080','2','01874543')

select *from employee1
```

Results Explain Describe Saved SQL History

EMP_NO	E_NAME	E_JOB	COMM	JOINING_DATE	DEPT_NUMBER	SALARY	BUILDING_NUMBER	PHONE
101	karim	pion	500	12-JUL-97	100	6000	2	018743543
103	rahim	librarian	500	12-JUL-97	100	6000	2	01743543
109	jasim	pion	500	12-JUL-97	100	6000	2	01874354
106	asif	pion	509	12-JUL-98	100	6000	2	01874353
104	mosak	pion	899	12-JUL-99	100	6080	2	01874543

5 rows returned in 0.00 seconds CSV Export

D VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into d values ('1235','sajid','xyz8@gmail.com','dhaka','bangladesh','0992','database1','34230','98880')

insert into d values ('1236','taj','xyz7@gmail.com','dhaka','bangladesh','0992','database2','34231','98885')

insert into d values ('1234','salman','xyz3@gmail.com','khulna','bangladesh','0982','database3','34232','98883')

insert into d values ('1230','jobbar','xyz2@gmail.com','dhaka','bangladesh','0992','database4','34243','98818')

select*from d
```

Results Explain Describe Saved SQL History

TID	TNAME	EMAIL	CITY	COUNTRY	ZIP	SUBJECT	EMPNO	CID
1235	sajid	xyz1@gmail.com	dhaka	bangladesh	992	database1	34233	98888
1230	jobbar	xyz2@gmail.com	dhaka	bangladesh	992	database4	34243	98818
1234	salman	xyz3@gmail.com	khulna	bangladesh	982	database3	34232	98883
1236	taj	xyz7@gmail.com	dhaka	bangladesh	992	database2	34231	98885

4 rows returned in 0.00 seconds CSV Export

C VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into c values ('111','12','09','21','ABG')
insert into c values ('114','12','05','20','ABE')
insert into c values ('115','12','07','29','ABF')

insert into c values ('111','12','01','22','ABC')



select*from c
```

Results Explain Describe Saved SQL History

SID	ROOMNUMBER	BUILDINGNUMBER	CLASSID	SECTION
111	12	1	22	ABC
115	12	7	29	ABF
114	12	5	20	ABE
111	12	9	21	ABG

4 rows returned in 0.00 seconds CSV Export

BOOK1 VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into book1 values (1232,'abc','C','original')
insert into book1 values (1231,'abi','B','original')
insert into book1 values (1235,'abe','T','original')
insert into book1 values (1230,'abw','Y','original')
insert into book1 values (1239,'abq','O','original')
insert into book1 values (1236,'abk','W','original')

select * from book1
```

Results Explain Describe Saved SQL History

BOOK_ID	BOOK_NAME	BLOCK	SELF
1234	abc	C	original
1232	abc	C	original
1231	abi	B	original
1235	abe	T	original
1236	abk	W	original
1239	abq	O	original
1230	abw	Y	original

7 rows returned in 0.00 seconds CSV Export

B VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into b values ((TO_DATE('1997-07-12','yyyy-mm-dd')),'124','10700','12','xyz','500','101','Teacher')
insert into b values ((TO_DATE('1995-06-12','yyyy-mm-dd')),'125','19000','12','zzz','600','102','Teacher')
insert into b values ((TO_DATE('1998-02-12','yyyy-mm-dd')),'126','10000','12','sss','700','103','Teacher')
insert into b values ((TO_DATE('1999-04-12','yyyy-mm-dd')),'127','19800','12','mmm','5000','104','professor')
insert into b values ((TO_DATE('1989-02-12','yyyy-mm-dd')),'128','10000','12','ddd','500','105','lecturer')
insert into b values ((TO_DATE('2000-03-12','yyyy-mm-dd')),'129','16000','12','qqq','500','106','lecturer')


select *from b
```

Results Explain Describe Saved SQL History

JOINDATE	SCHOOLID	SALARY	ROOMNUMBER	ENAME	COMM	EMPNO	EJOB
12-FEB-99	123	10000	12	Taj	500	100	Teacher
12-FEB-99	120	10500	12	ppp	500	107	lecturer
12-JUL-97	124	10700	12	xyz	500	101	Teacher
12-JUN-95	125	19000	12	zzz	600	102	Teacher
12-FEB-98	126	10000	12	sss	700	103	Teacher
12-APR-99	127	19800	12	mmm	5000	104	professor
12-FEB-89	128	10000	12	ddd	500	105	lecturer
12-MAR-00	129	16000	12	qqq	500	106	lecturer

8 rows returned in 0.02 seconds CSV Export

AB VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

```
insert into ab values ('1235','101')
insert into ab values ('1237','102')
insert into ab values ('1238','103')
insert into ab values ('1230','104')
insert into ab values ('1239','105')
insert into ab values ('1236','106')

select*from ab
```

Results Explain Describe Saved SQL History

TID	EMPNO
1234	100
1235	101
1237	102
1238	103
1230	104
1239	105
1236	106

7 rows returned in 0.00 seconds CSV Export

A VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

Home > SQL > SQL Commands

Autocommit Display 10

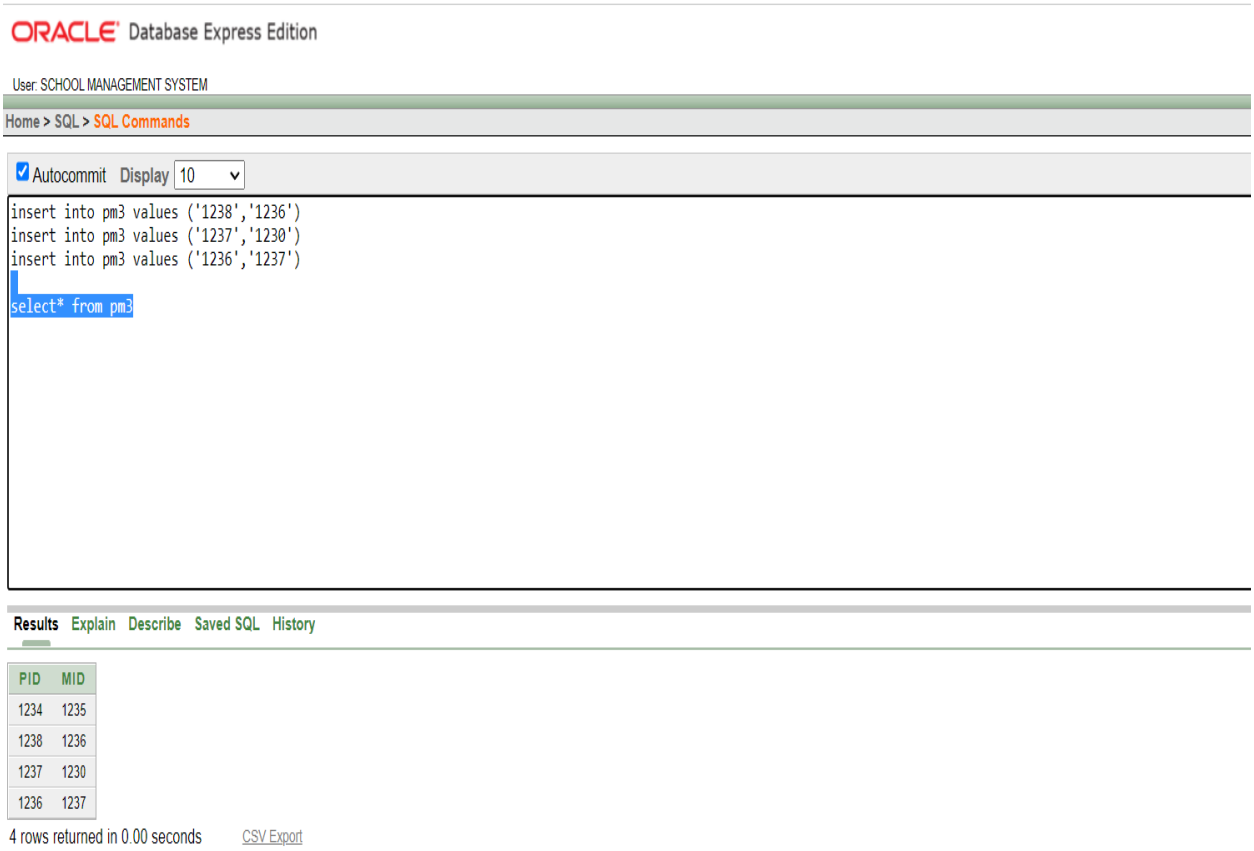
```
insert into a values ('rahim','1235','0986','database2','0662','dhaka','bangladesh','xyz1@gmail.com','01762377')
insert into a values ('karim','1237','0985','database3','0662','dhaka','bangladesh','xyz2@gmail.com','017622177')
insert into a values ('jamal','1238','0984','database4','0663','rajshahi','bangladesh','xyz4@gmail.com','01721377')
insert into a values ('jobbar','1294','0937','databas0','0662','dhaka','bangladesh','xyz5@gmail.com','017621377')
insert into a values ('salman','1204','0927','databas6','0662','dhaka','bangladesh','xyz6@gmail.com','017621377')

select *from a
```

Results Explain Describe Saved SQL History

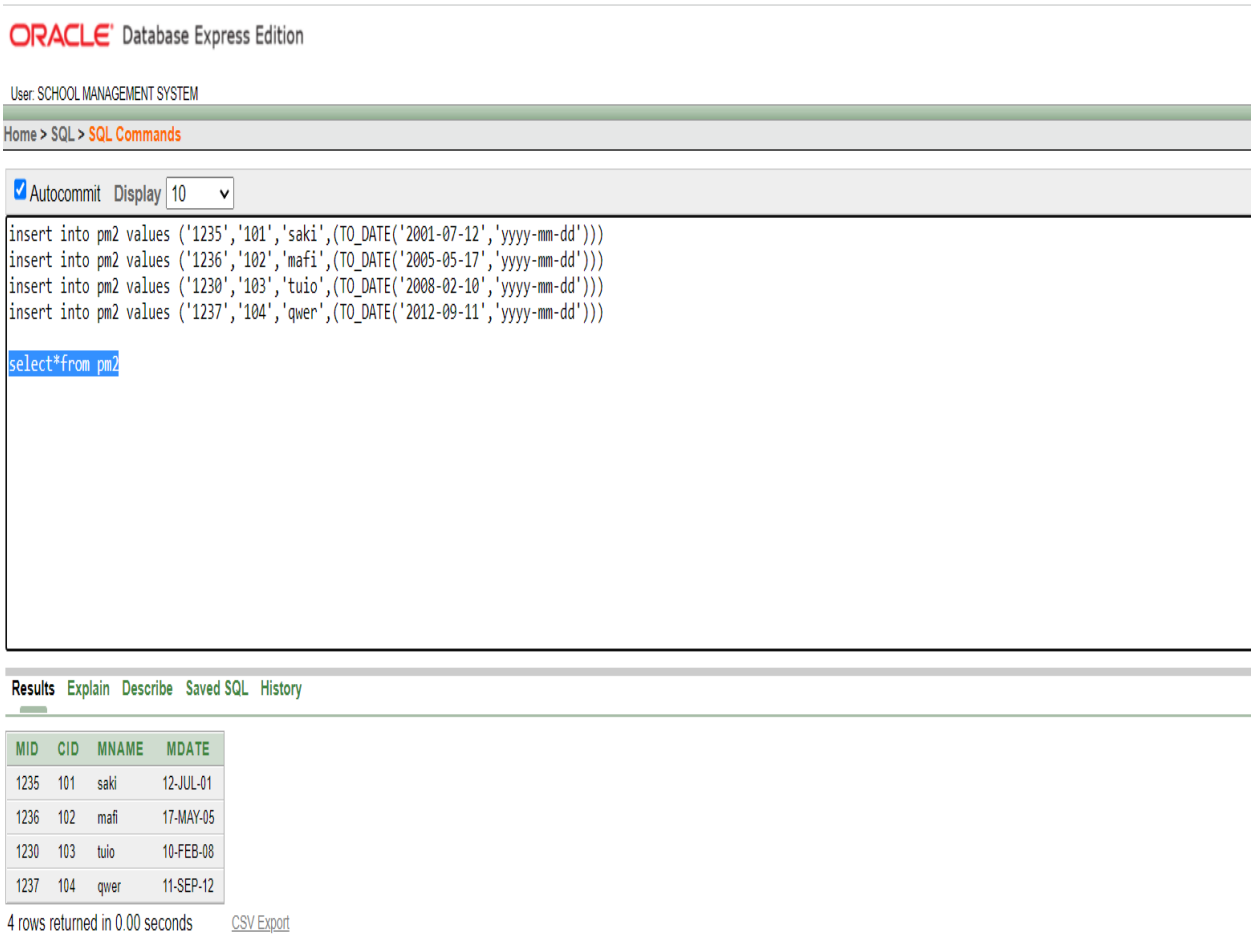
TNAME	TID	CID	SUBJECT	ZIP	CITY	COUNTRY	EMAIL	PHONE
sajid	1234	987	database1	662	dhaka	bangladesh	xyz@gmail.com	1762721377
rahim	1235	986	database2	662	dhaka	bangladesh	xyz1@gmail.com	1762377
karim	1237	985	database3	662	dhaka	bangladesh	xyz2@gmail.com	17622177
jamal	1238	984	database4	663	rajshahi	bangladesh	xyz4@gmail.com	1721377
jobbar	1294	937	databas0	662	dhaka	bangladesh	xyz5@gmail.com	17621377
salman	1204	927	databas6	662	dhaka	bangladesh	xyz6@gmail.com	17621377

6 rows returned in 0.00 seconds CSV Export

PM3 VALUE INSERT



PM2 VALUE INSERT



PM1 VALUE INSERT

ORACLE Database Express Edition

User: SCHOOL MANAGEMENT SYSTEM

lome > SQL > SQL Commands

Autocommit Display 10

```
insert into pm1 values ('1235','sabbir','teacher')

insert into pm1 values ('1236','sahil','teacher')

insert into pm1 values ('1237','saki','student')

insert into pm1 values ('1238','sak','stuff')

select*from pm1
```

Results Explain Describe Saved SQL History

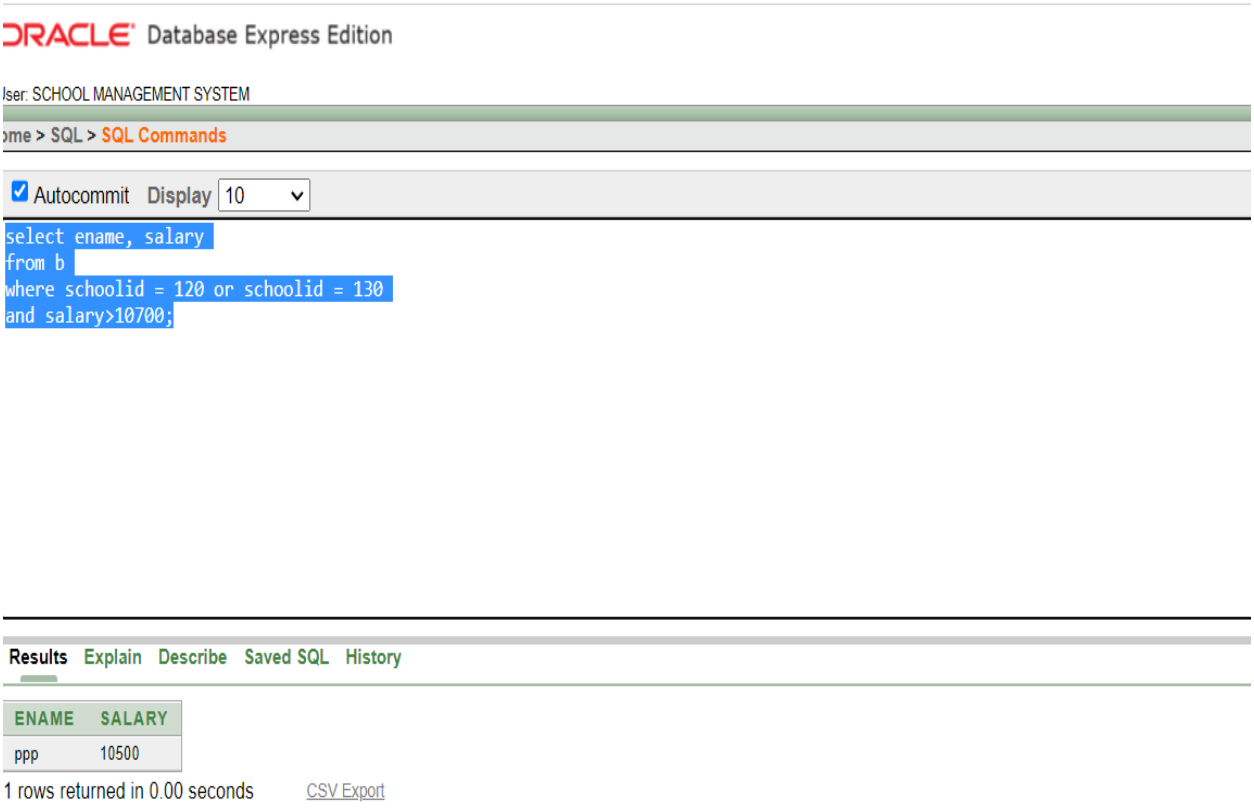
PID	PNAME	PJOB
1234	sakil	teacher
1238	sak	stuff
1237	saki	student
1236	sahil	teacher
1235	sabbir	teacher

5 rows returned in 0.00 seconds CSV Export

QUERY TEST

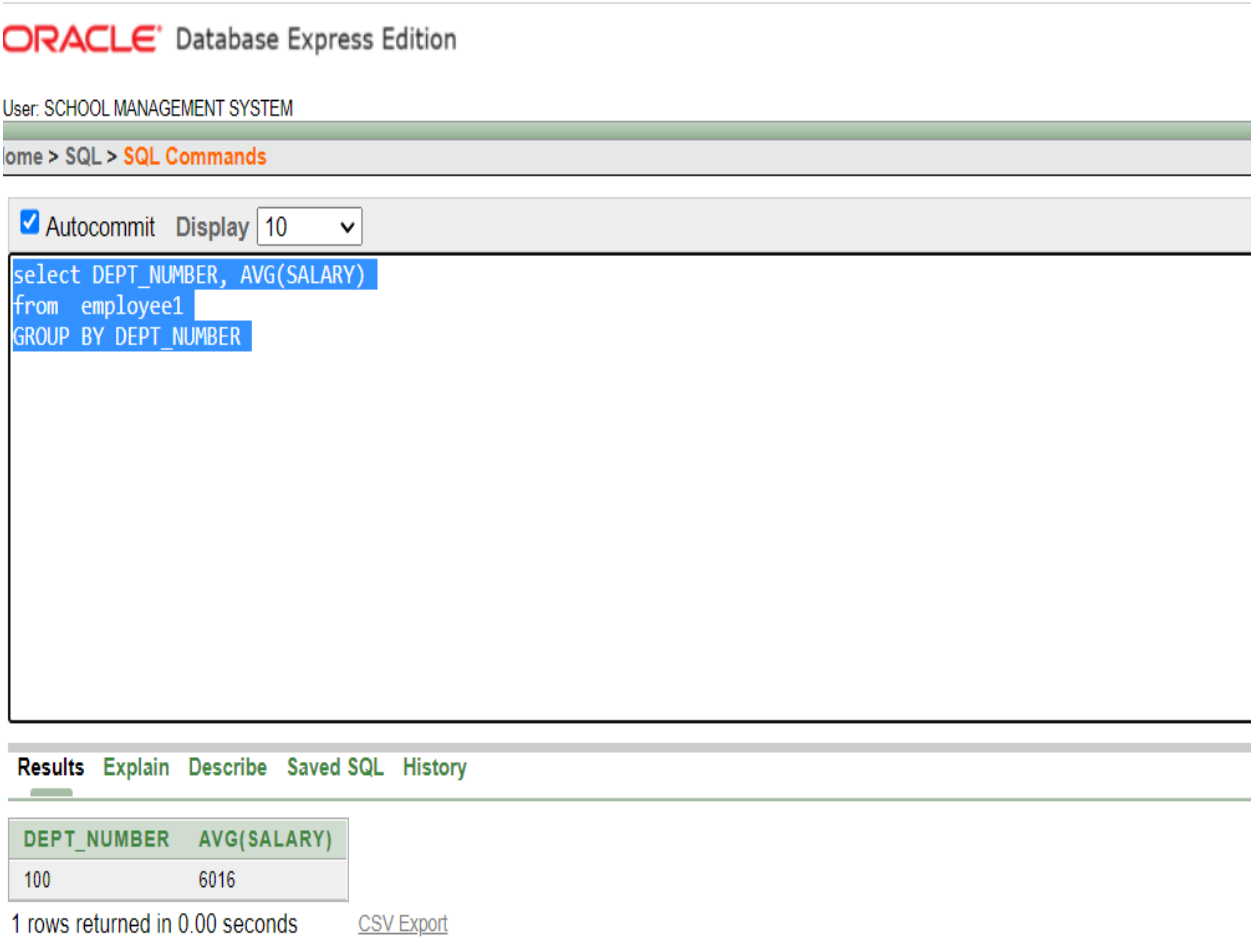
1. Write a query to list the name and salary of employees who earn more than $10700 and are in school id 120 or 127. Label the columns name of employee Employees and salary as Monthly Salary.

```
select ename, salary
from b
where schoolid = 120 or schoolid = 130
and salary>10700;
```



2. show the deptno,avg salary from employee1 group by dept no

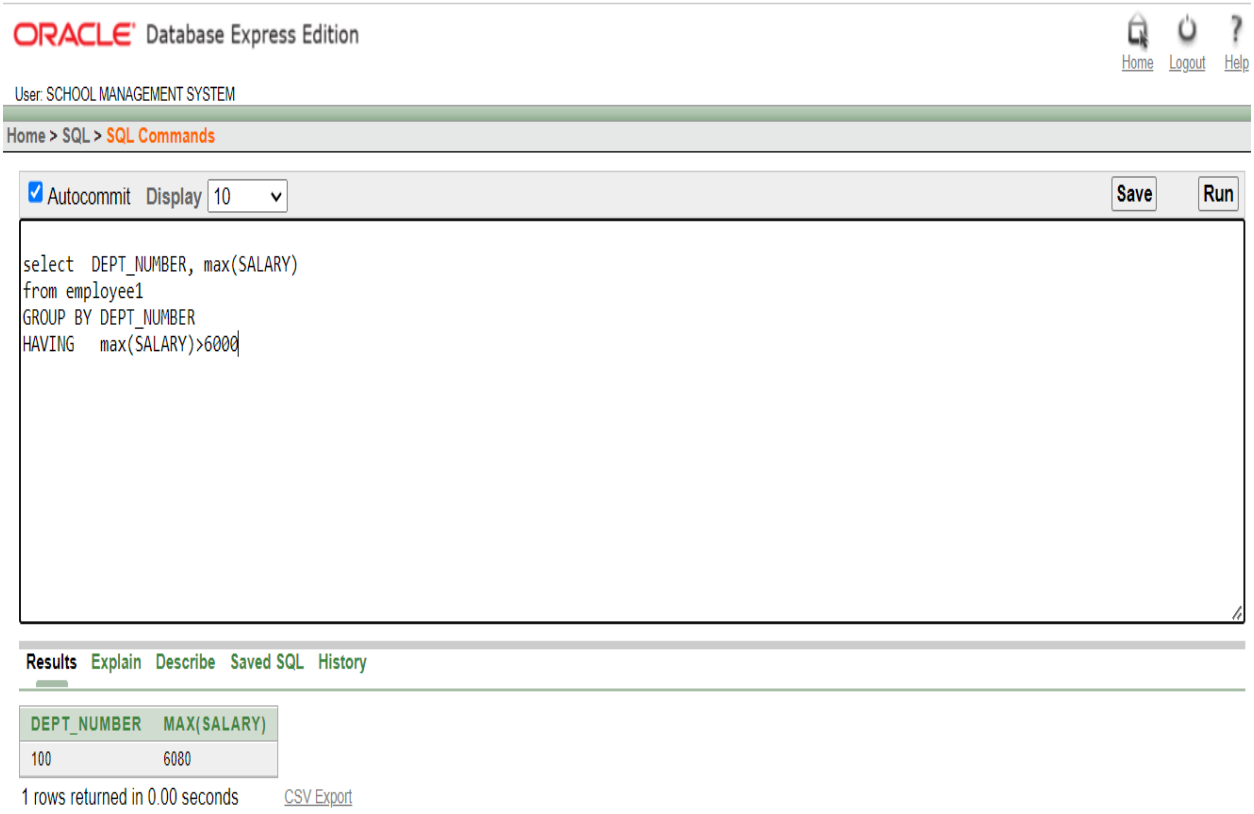
```
select DEPT_NUMBER, AVG(SALARY)
from  employee1
GROUP BY DEPT_NUMBER
```



3.

show depno,max salary from employee1 group by deptno where max salary is greater than 6000

```
select  DEPT_NUMBER, max(SALARY)
from employee1
GROUP BY DEPT_NUMBER
HAVING   max(SALARY)>6000
```

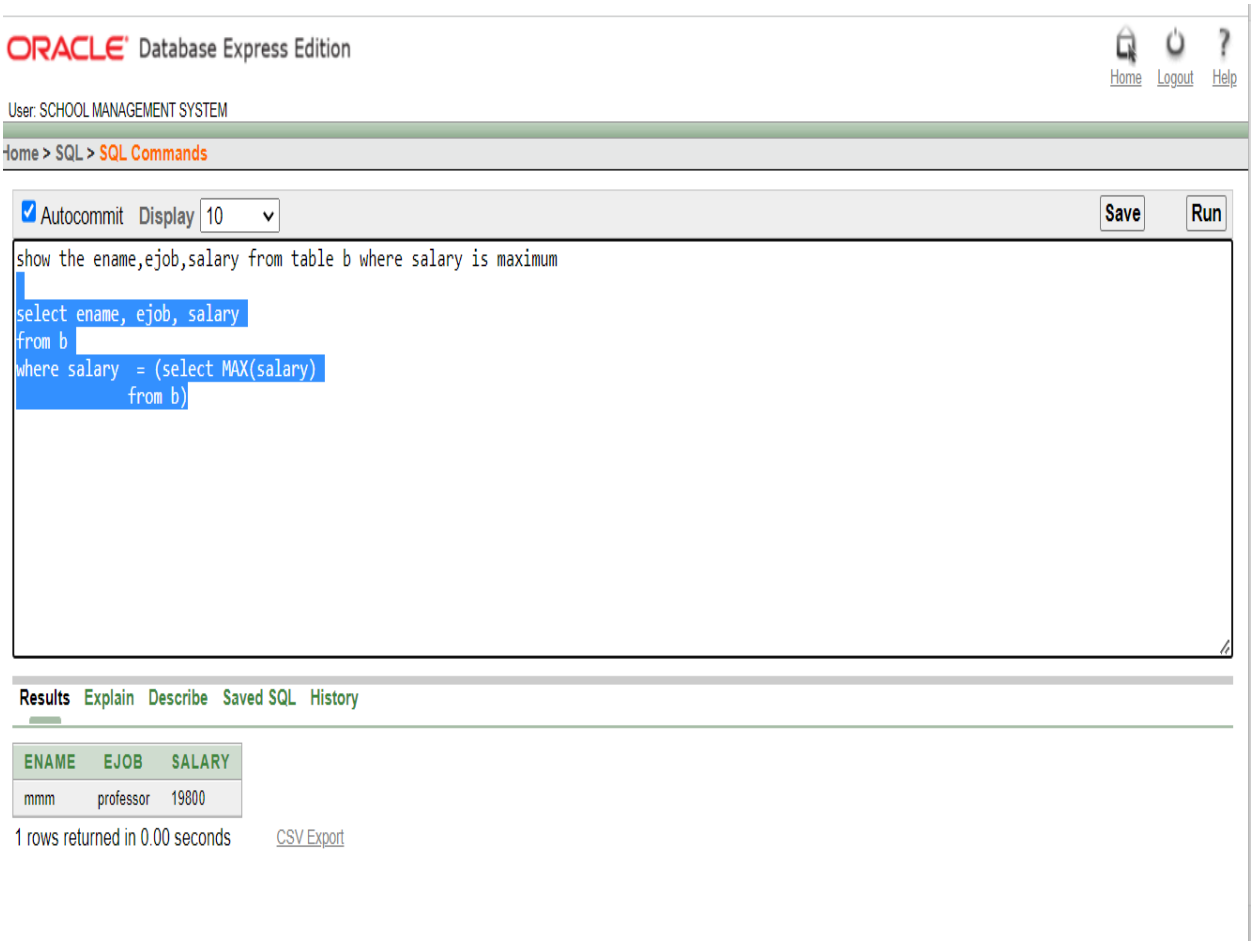


4.

Single Row Sub Query

show the ename , ejob,salary from table b where salary is maximum.

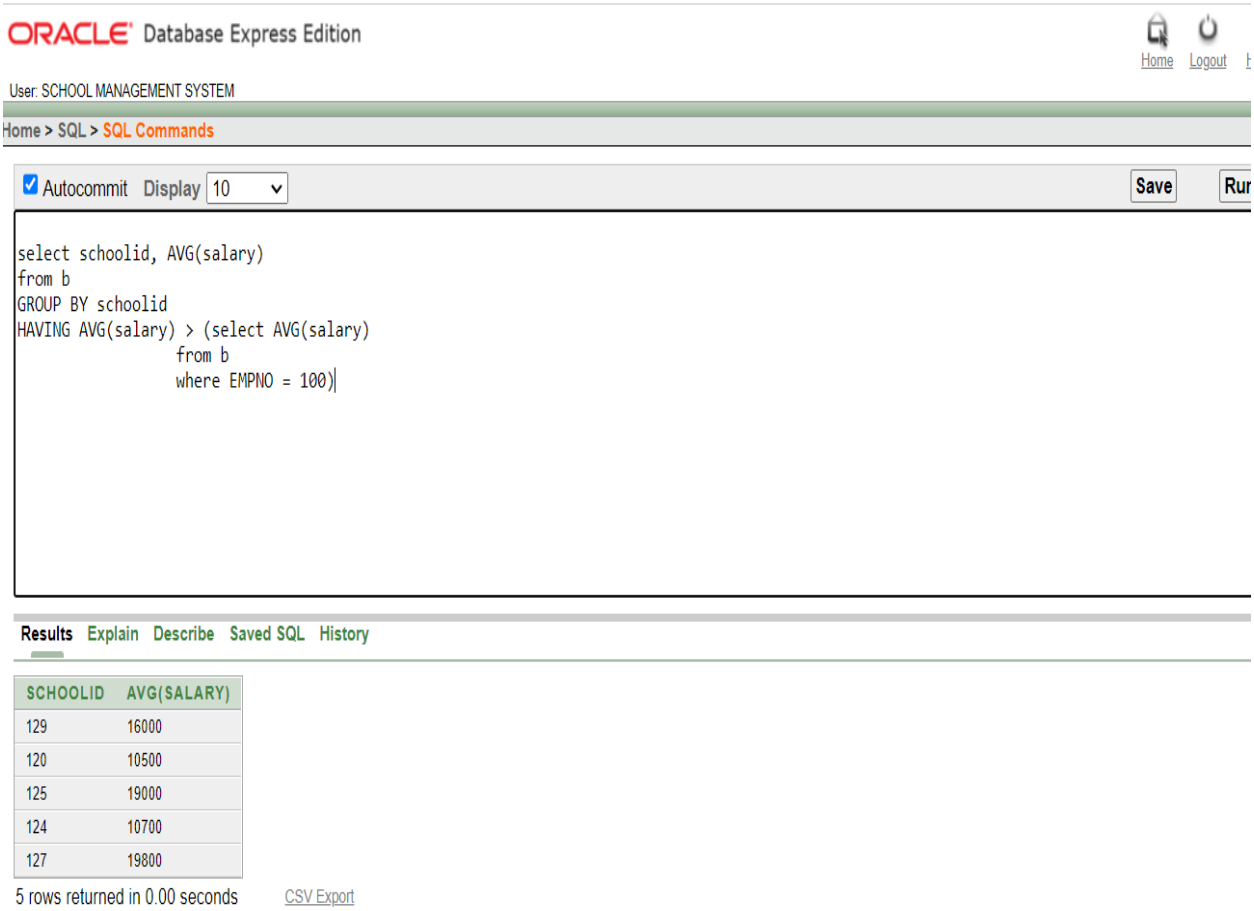
```
select ename, ejob, salary
from b
where salary  = (select MAX(salary)
          from b)
```



5.

show schoolid,avarage salary from table b group by school id where avg salary is greater than the avg salary of emp 100

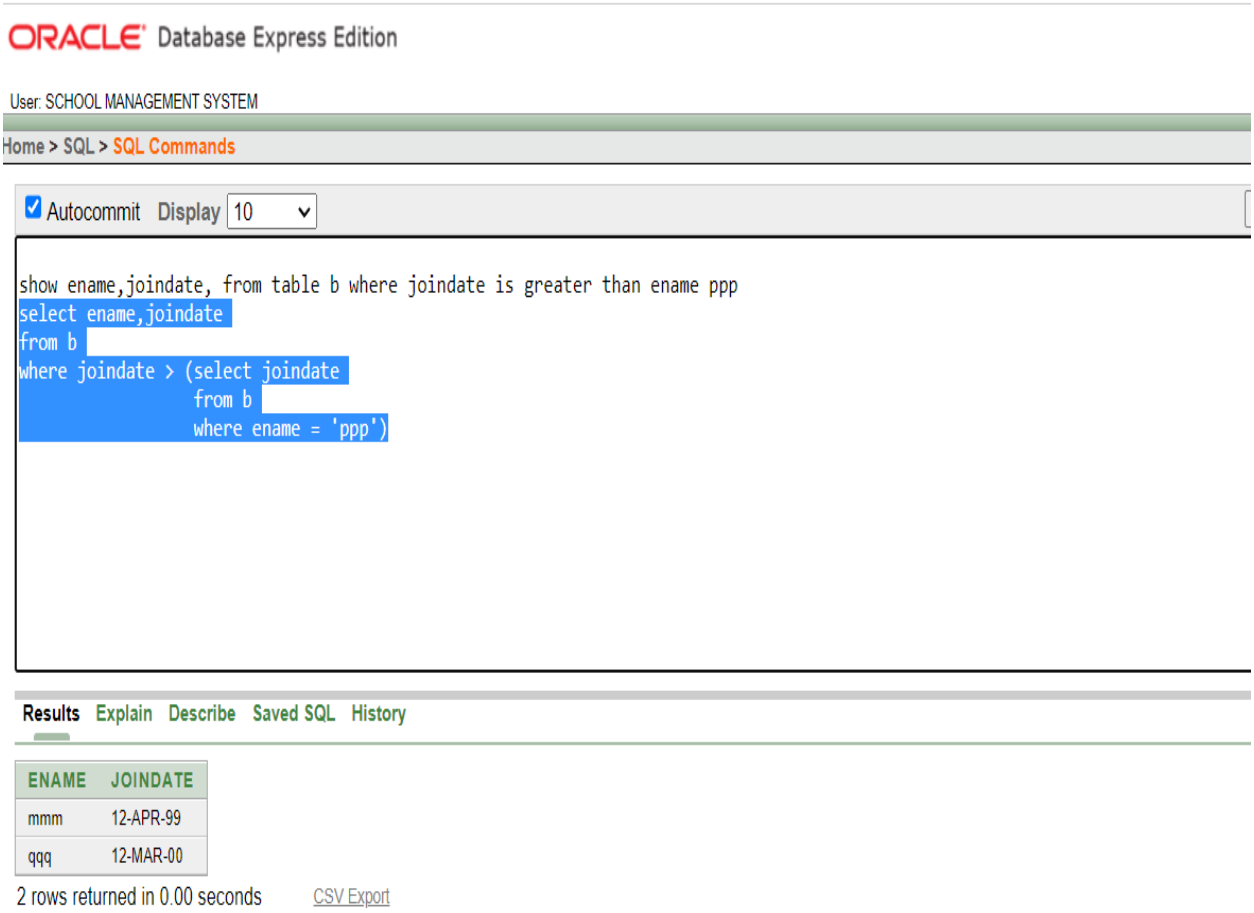
```
select schoolid, AVG(salary)

from b

GROUP BY schoolid

HAVING AVG(salary) > (select AVG(salary)

                      from b

                      where EMPNO = 100)
```



6.

show ename,joindate, from table b where joindate is greater than ename ppp

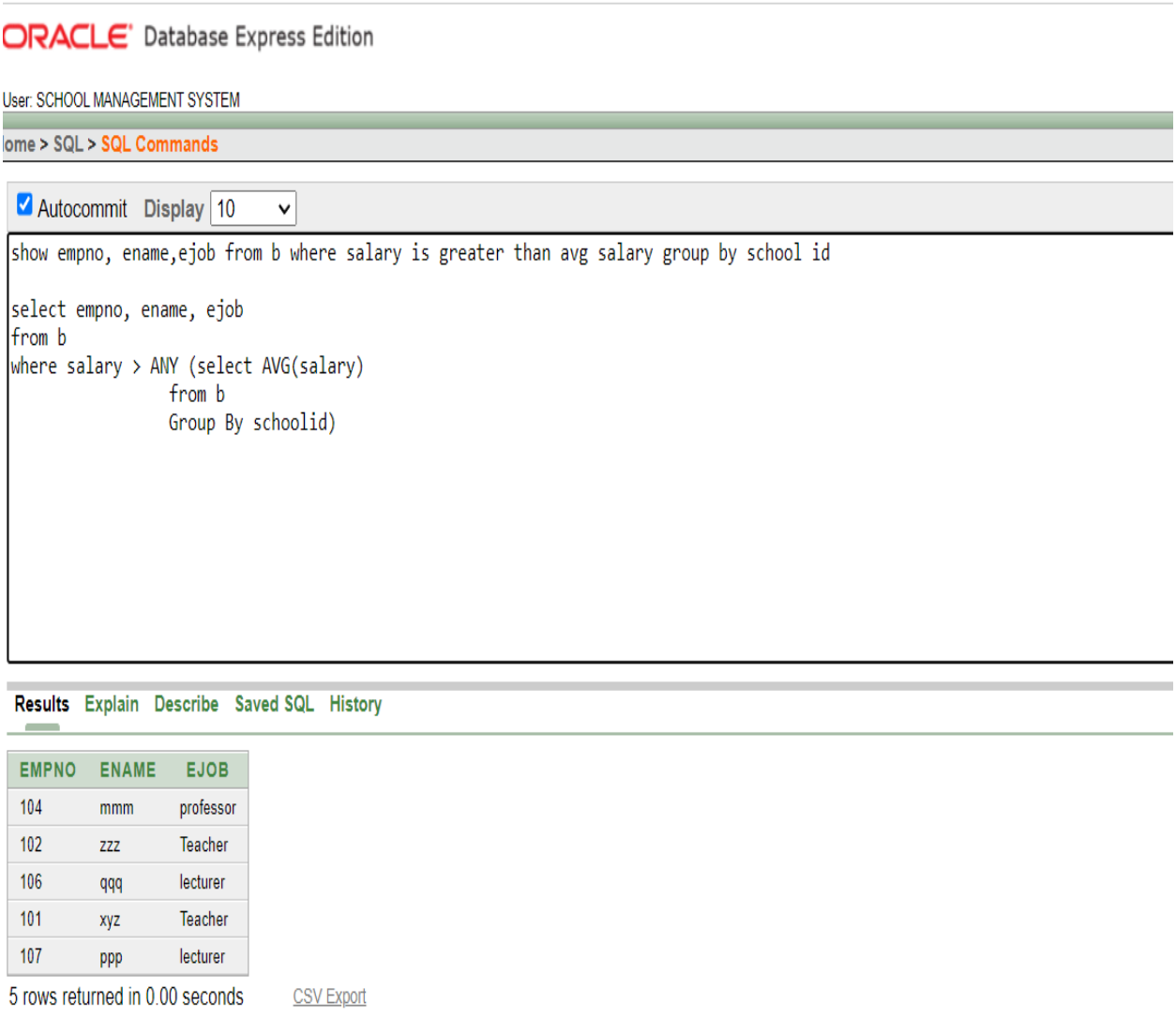
```
select ename,joindate
from b
where joindate > (select joindate
                  from b
                  where ename = 'ppp')
```



7.

show empno, ename,ejob from b where salary is greater than avg salary group by school id

```
select empno, ename, ejob
from b
where salary > ANY (select AVG(salary)
                    from b
                    Group By schoolid)
```



8.

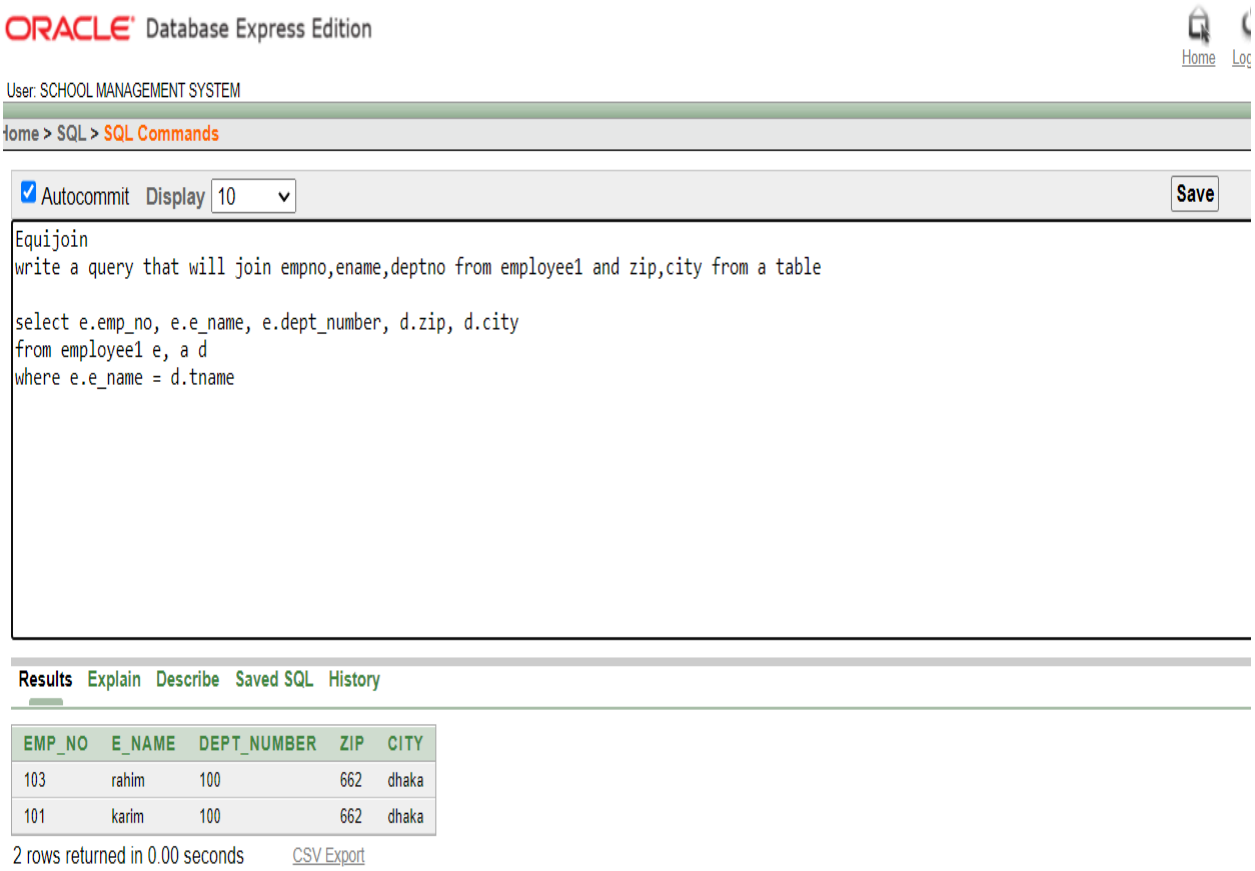
Equijoin

write a query that will join empno,ename,deptno from employee1 and zip,city from a table

select e.emp_no, e.e_name, e.dept_number, d.zip, d.city

from employee1 e, a d

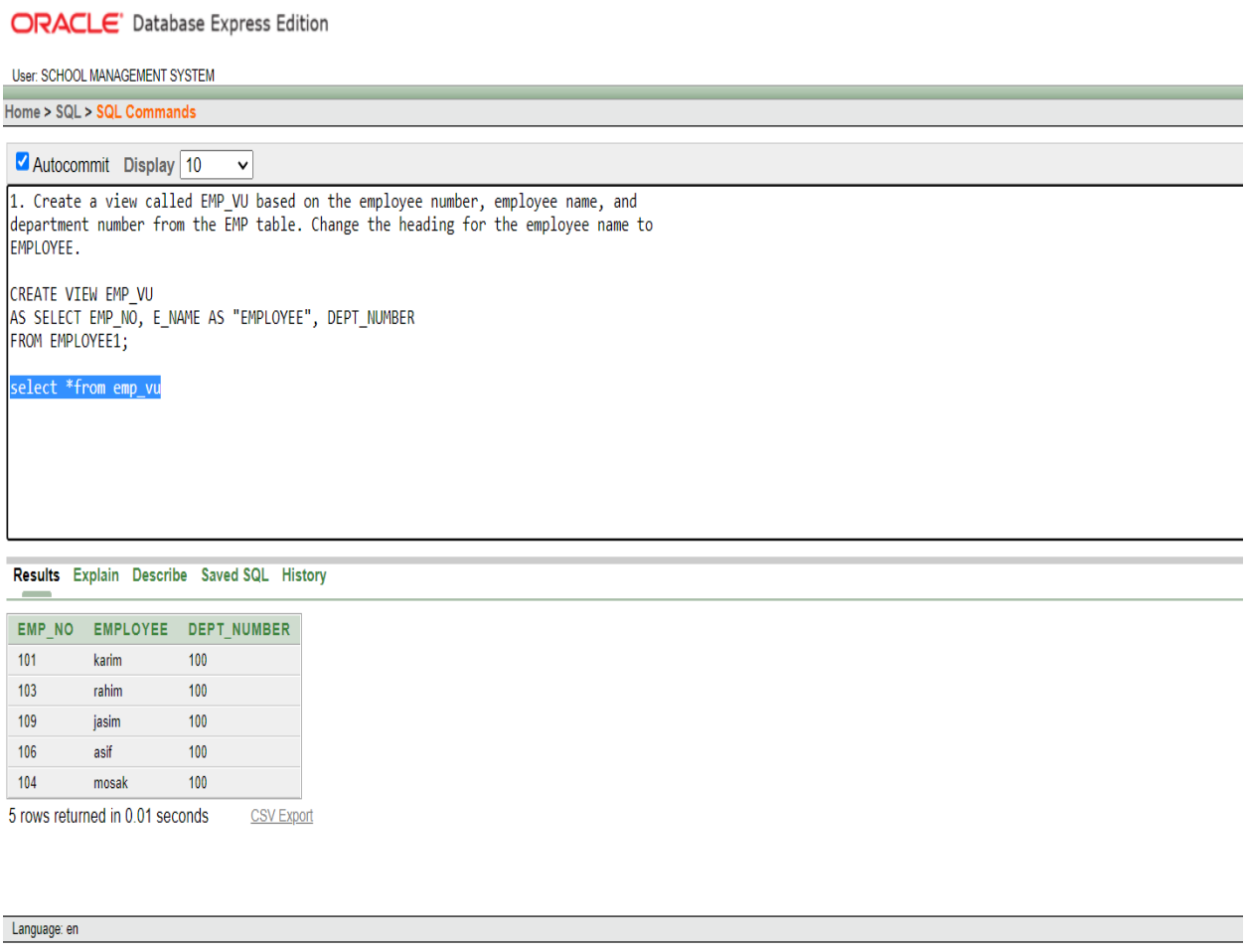
where e.e_name = d.tname



Views

1. Create a view called EMP_VU based on the employee number, employee name, and department number from the EMP table. Change the heading for the employee name to EMPLOYEE.

```
CREATE VIEW EMP_VU
AS SELECT EMP_NO, E_NAME AS "EMPLOYEE", DEPT_NUMBER
FROM EMPLOYEE1;
select *from emp_vu
```



Conclution

This is our SCHOOL MANAGEMENT SYSTEM database project. Through this project ,In future we can manage school's data with good management .If we need any kind of information we can use this project to find out that data easily.