



Tecnológico de Monterrey

Proyect SRS

TC1020EM19 DATABASE
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Abstract

Description

Tec University is the name of the database made in SQL together with Python, HTML+CSS for the subject of Databases of 4th semester students in the Tecnológico de Monterrey Campus Monterrey.

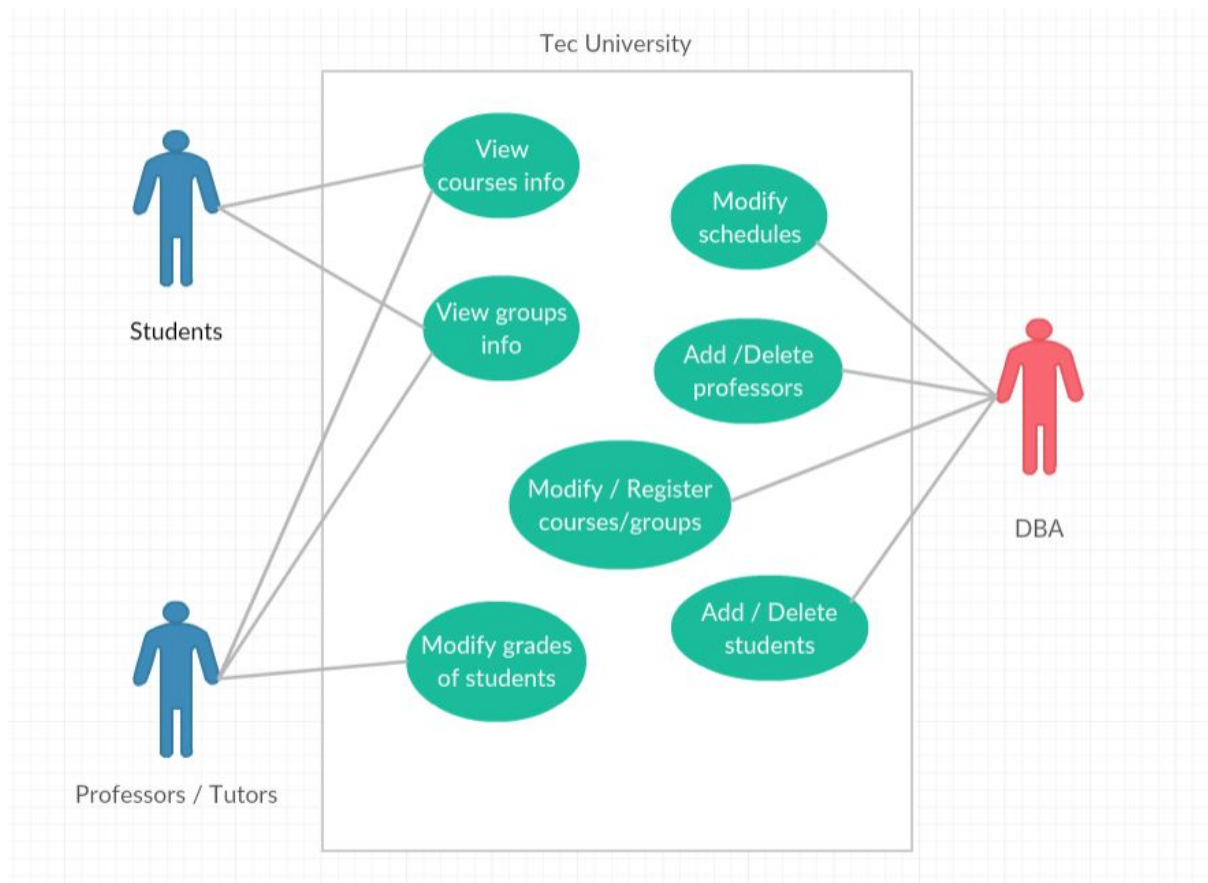
Purpose

The database “Tec University” serves its purpose as a smart storage that manages all the information relevant to the institution, these being Students, Professors and the courses/groups they have signed up to.

Reach

The main goal of this database is to optimize processes of data storage, making it available to any student enrolled on their course, any professor that wants to check up on their students academic history and grade their performances as well as the human resources workers that need the information for many different transactions.

Use Case Diagram



Description

Students interact with this database through the viewing of their courses information , as well as the group they are taking part of on each subject they enrolled in, but they have no other action on the maner, as they cannot change the subject they have already enlisted to, unless it was a mistake made by the IT staff which falls on the Database Administrator´s hands, in which case they will make sure its fixed as quickly as possible.

Professors and tutors can manage their own groups they teach in by modifying the grades of the students enrolled in them as the course progresses. All other change and action is made by the IT staff and directed by the DBA.

System Requirements

In this segment we will go through the specific requirements needed in order to make this database efficient and useful.

Functional Requirements

Business Rules

Anyone enrolled as a student has the right to view the information of the subjects, professors and groups they are being signed up in, however, the control of said information , as well as the maintenance of the database falls in the hands of the DBA and their staff.

Transaction corrections, adjustment and cancellations

All transactions inside the database are final and heavily monitored by the IT staff in case of any issue that may register.

Authentication

Students, Tutors and IT Staff need their personal ID's and selected way of authentication in order to view and/or modify any sort of data inside the database, and will not be granted access unless proven being part of any of these groups.

Historical Data

In case of a incident that includes data loss at some point in the future, the database should be capable of returning to a stable point in time with most of said data being recovered.

Administrative functions

DBA and IT staff will be granted with the total control and maintenance of the database.

Non Functional Requirement

Performance

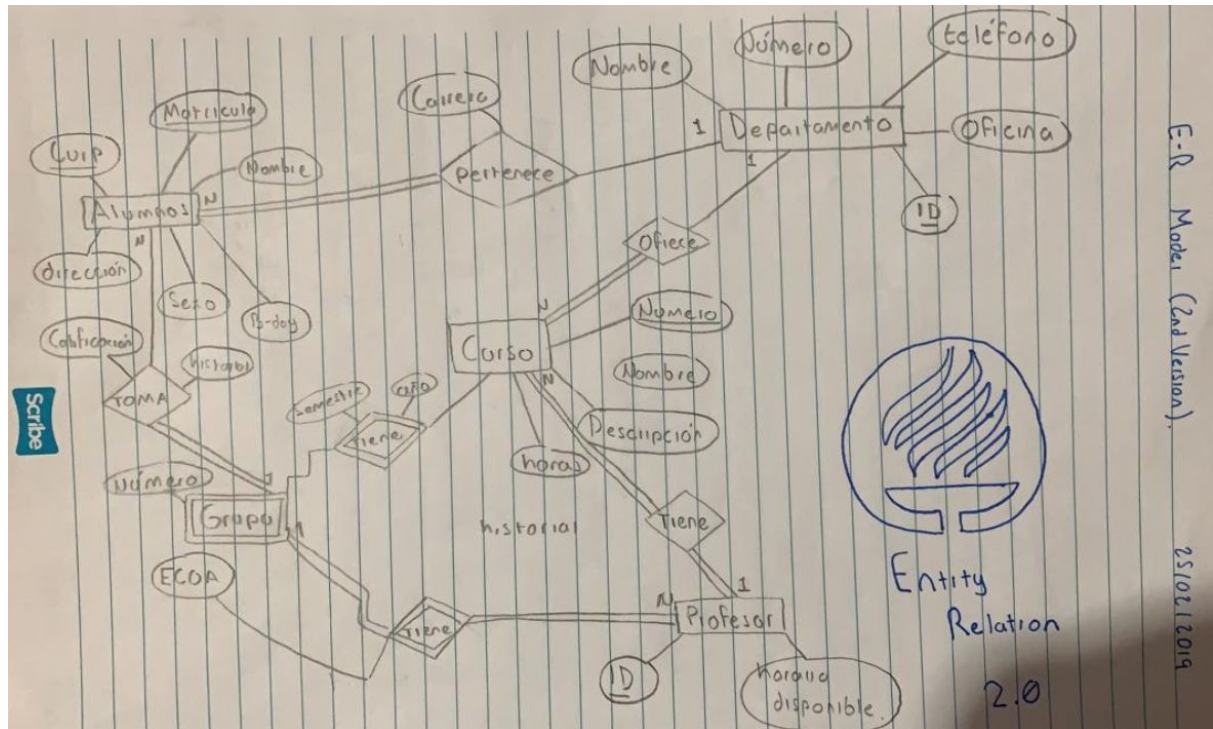
The database is fluid and snappy throughout any device which can handle a web browser can interact with it.

Security

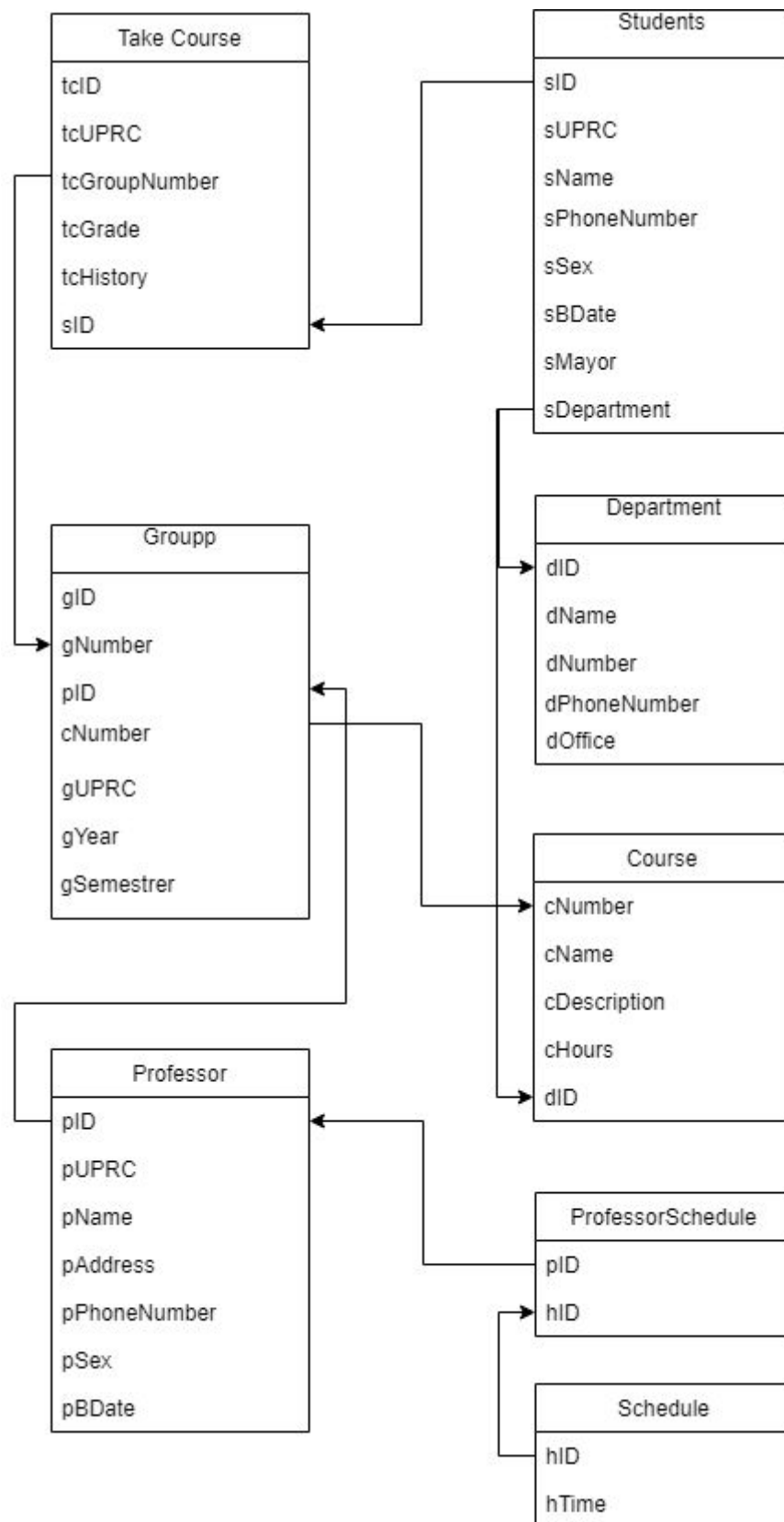
The security systems need database storage as well as the private information of the students , however these editable systems should not be available to them, and vice versa, the information of all users should always be under our privacy policy.

Logical Models

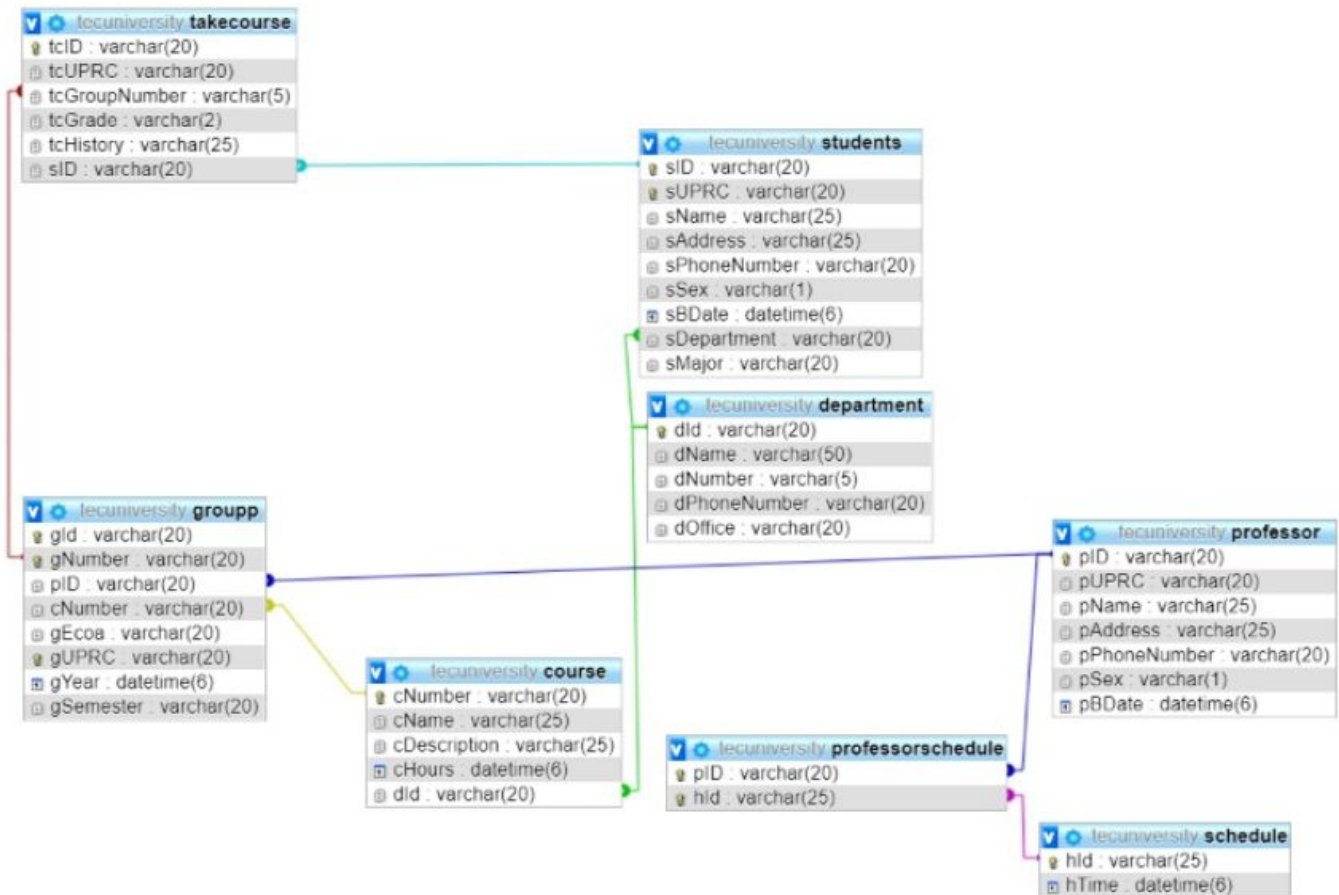
Entity-Relational Model (ERD)



Class Diagram



Relational Model (SQL)



DDL

```
CREATE Database TecUniversity;
```

```
CREATE TABLE Department (  
    dId varchar(20) Not Null,  
    dName varchar (50) Not Null,  
    dNumber varchar(5) Not Null,  
    dPhoneNumber varchar(20) Not Null,  
    dOffice varchar(20) Not Null,  
    primary key(dId)  
) Engine=InnoDB;
```

```
CREATE TABLE Students (  
    sID varchar(20) Not Null,  
    sUPRC varchar(20) NOT Null,  
    sName varchar(25) Not Null,  
    sAddress varchar(25) Null,  
    sPhoneNumber varchar (20) Null,  
    sSex varchar (1) Null,  
    sBDate datetime(6) Null,  
    sDepartment varchar(20) Not Null,  
    sMajor varchar(20) Not Null,  
    primary key(sID, sUPRC),  
    foreign key(sDepartment) references Department(dId)  
) Engine=InnoDB;
```

```
CREATE TABLE Schedule (  
    hId varchar(25) Not Null,  
    hTime datetime(6) Not Null,  
    primary key(hId)  
) Engine=InnoDB;
```

```
CREATE TABLE Professor (  
    pID varchar(20) Not Null,  
    pUPRC varchar(20) NOT Null,  
    pName varchar(25) Not Null,  
    pAddress varchar(25) Null,  
    pPhoneNumber varchar (20) Null,  
    pSex varchar (1) Null,  
    pBDate datetime(6) Null,  
    primary key(pID)  
) Engine=InnoDB;
```

```
CREATE TABLE ProfessorSchedule (
    pID varchar(20) Not Null,
    hId varchar(25) Not Null,
    primary key(pId, hId),
    foreign key (pID) references Professor(pId),
    foreign key (hId) references Schedule(hId)
) Engine=InnoDB;
```

```
CREATE TABLE Course (
    cNumber varchar(20) Not Null,
    cName varchar(25) Not Null,
    cDescription varchar(25) Not Null,
    cHours datetime(6) Not Null,
    dId varchar(20) Not Null,
    primary key(cNumber),
    foreign key(dId) references Department(dId)
) Engine=InnoDB;
```

```
CREATE TABLE Groupp (
    gId varchar(20) Not Null,
    gNumber varchar(20) Not Null,
    pID varchar(20) Not Null,
    cNumber varchar(20) Not Null,
    gEcoa varchar(20) Not Null,
    gUPRC varchar(20) Not Null,
    gYear datetime(6) Not Null,
    gSemester varchar(20) Not Null,
    primary key(gNumber, gId, gUPRC),
    foreign key(pId) references Professor(pId),
    foreign key(cNumber) references Course(cNumber)
) Engine=InnoDB;
```

```
create table TakeCourse (
    tcID varchar(20) Not Null,
    tcUPRC varchar(20) Not Null,
    tcGroupNumber varchar(5) Not Null,
    tcGrade varchar(2) Not Null,
    tcHistory varchar(25) Not Null,
    sID varchar(20) Not Null,
    primary key(tcID),
    foreign key(sID) references Students(sID),
    foreign key(tcGroupNumber) references Groupp(gNumber)
) Engine=InnoDB;
```

DML

--Department

```
Insert Into Department values('4521', 'Computer Department', '1','8110236541','100');
Insert Into Department values('4522', 'Chemistry Department', '2','8110236361','200');
Insert Into Department values('4523', 'Electronic Department', '3','8110236251','300');
Insert Into Department values('4524', 'Physics Department', '4','8110236861','400');
```

--Student

```
Insert Into Students values('6231', 'CAMD000421HNLRV4', 'David Alonso Cantú', 'Cumbres',
'8115822516', 'M', '2000-04-21', '4521', 'Computer Science');
Insert Into Students values('6232', 'VAGP990301HNLR3', 'Paco Antonio Vargas', 'San
Pedro', '8112369547', 'M', '1999-06-02', '4522', 'Chemical Engineer');
Insert Into Students values('6233', 'ELTK980401HNLRG6', 'Elvis Tek', 'Santa Catarina',
'8110523698', 'M', '1989-04-18', '4523', 'Robotics');
Insert Into Students values('6234', 'MPLO950204HNLR4', 'María Perez', 'Apodaca',
'8110236984', 'F', '1995-02-04', '4524', 'Physics');
```

--Schedule

```
Insert Into Schedule values('1', '0000-00-00 07:30:00.000000');
Insert Into Schedule values('2', '0000-00-00 08:30:00.000000');
Insert Into Schedule values('3', '0000-00-00 09:30:00.000000');
Insert Into Schedule values('4', '0000-00-00 10:30:00.000000');
Insert Into Schedule values('5', '0000-00-00 12:30:00.000000');
```

--Professor

```
Insert Into Professor values('4578', 'PEPP541016HASCIP07', 'Pepe Pecas', 'Por aquí',
'4619293210', 'M', '1954-10-16');
Insert Into Professor values('4579', 'ELPLA541016HASCP07', 'Elba Lazo', 'Por ahí',
'8271029291', 'F', '1988-10-16');
Insert Into Professor values('4580', 'PER4541016HASCIP07', 'Pepe Roni', 'Por allá',
'8372918539', 'M', '1990-10-16');
Insert Into Professor values('4581', 'ELPU541016HASCIP07', 'Elsa Pato', 'Por acuyá',
'75831983829', 'F', '1970-10-16');
Insert Into Professor values('4582', 'PEPLA54101HASCIP07', 'Pepe Lotas', 'Hasta Cumbres...',
'9381927492', 'M', '1989-10-16');
```

--PSchedule

```
Insert Into ProfessorSchedule values('4578', '1');
Insert Into ProfessorSchedule values('4579', '2');
Insert Into ProfessorSchedule values('4580', '3');
Insert Into ProfessorSchedule values('4581', '4');
Insert Into ProfessorSchedule values('4582', '5');
```

--Course

Insert Into Course values('50', 'Sepultura de Vatos', 'Creación y utilización de Estructura de datos', '0000-00-00 07:30:00.000000', '4521');

Insert Into Course values('51', 'Huevassign', 'Resolucion de problemas de programacion', '0000-00-00 10:30:00.000000', '4522');

Insert Into Course values('52', 'Algorritmos', 'Analisis y diseño de Algirritmos', '0000-00-00 08:30:00.000000', '4521');

Insert Into Course values('53', 'Bases de Gatos', 'Acariciar Gatitos', '0000-00-00 07:30:00.000000', '4521');

Insert Into Course values('54', 'Bases de Gatos', 'Acariciar Gatitos', '0000-00-00 10:30:00.000000', '4521');

Insert Into Course values('55', 'Bases de Gatos', 'Acariciar Gatitos', '0000-00-00 12:00:00.000000', '4521');

Insert Into Course values('56', 'Bases de Gatos', 'Acariciar gatitos', '0000-00-00 13:30:00.000000', '4521');

Insert Into Course values('57', 'Soluciones', 'Realización de soluciones quimicas', '0000-00-00 07:30:00.000000', '4521');

Insert Into Course values('58', 'Destrucción de vatos', 'Destrucción de Vatos', '0000-00-00 09:30:00.000000', '4521');

Insert Into Course values('59', 'AI O ES', 'Desarrollo de aplicaciones en AI O ES', '0000-00-00 11:30:00.000000', '4521');

Insert Into Course values('60', 'AI O ES', 'Desarrollo de aplicaciones en AI O ES', '0000-00-00 13:30:00.000000', '4521');

Insert Into Course values('61', 'Tijeritas 3', 'Aprender a cortar con tijeras', '0000-00-00 07:30:00.000000', '4524');

--Group

Insert Into Group values('200', '300', '4578', '50', '100', 'PEPP541016HASCIP07', '2018-00-00 07:30:00.000000', 'Aug-Dec');

Insert Into Group values('201', '301', '4579', '51', '100', 'ELPLA541016HASCIP07', '2018-00-00 07:30:00.000000', 'Aug-Dec');

Insert Into Group values('202', '302', '4580', '52', '100', 'PER4541016HASCIP07', '1050-00-00 07:30:00.000000', 'Jan-May');

Insert Into Group values('203', '303', '4581', '53', '100', 'LN2KJ25K24B5LK2352', '1020-00-00 07:30:00.000000', 'Aug-Dec');

Insert Into Group values('204', '304', '4582', '54', '100', '2322ASMN34NBKNM6B1', '0070-00-00 07:30:00.000000', 'Jan-May');

Insert Into Group values('205', '305', '4578', '55', '100', 'PEPP541016HASCIP07', '0070-00-00 07:30:00.000000', 'Jan-May');

Insert Into Group values('206', '306', '4579', '56', '100', 'ELPLA541016HASCIP07', '0070-00-00 07:30:00.000000', 'Aug-Dec');

Insert Into Group values('207', '307', '4580', '57', '100', 'PER4541016HASCIP07', '0070-00-00 07:30:00.000000', 'Aug-Dec');

Insert Into Group values('208', '308', '4581', '58', '100', 'LN2KJ25K24B5LK2352', '0070-00-00 07:30:00.000000', 'Jan-May');

```

Insert Into Group values('209', '309', '4582', '59', '100', '2322ASMN34NBKNM6B1',
'0070-00-00 07:30:00.000000', 'Aug-Dec');
Insert Into Group values('210', '310', '4578', '60', '100', 'PEPP541016HASCIP07',
'0070-00-00 07:30:00.000000', 'Jan-May');
Insert Into Group values('211', '311', '4579', '61', '100', 'ELPLA541016HASCIP07',
'0070-00-00 07:30:00.000000', 'Aug-Dec');

```

--TakeCourse

```

Insert Into TakeCourse values('50000', 'ASDLADDHJ1H5646DF5', '300', '100', 'Aqui no se
que va equis de', '6231');
Insert Into TakeCourse values('50001', 'ASD8F99A8S8DSAH8DF', '301', '100', 'Aqui no se que
va equis de', '6232');
Insert Into TakeCourse values('50002', 'LKJ2KLJ34JK2L3K344', '302', '100', 'Aqui no se que
va equis de', '6233');
Insert Into TakeCourse values('50003', 'JH0JD9FG9SFGSD0FG9', '303', '100', 'Aqui no se que
va equis de', '6231');
Insert Into TakeCourse values('50004', 'LKJ45J6KJ45HK6HK45', '304', '100', 'Aqui no se que
va equis de', '6232');
Insert Into TakeCourse values('50005', 'LKJ45J6KJ45HK6HK45', '305', '100', 'Aqui no se que
va equis de', '6234');
Insert Into TakeCourse values('50006', 'LKJ45J6KJ45HK6HK45', '306', '100', 'Aqui no se que
va equis de', '6234');
Insert Into TakeCourse values('50007', 'LKJ45J6KJ45HK6HK45', '307', '100', 'Aqui no se que
va equis de', '6233');
Insert Into TakeCourse values('50008', 'LKJ45J6KJ45HK6HK45', '308', '100', 'Aqui no se que
va equis de', '6234');
Insert Into TakeCourse values('50009', 'LKJ45J6KJ45HK6HK45', '309', '100', 'Aqui no se que
va equis de', '6231');
Insert Into TakeCourse values('50010', 'LKJ45J6KJ45HK6HK45', '310', '100', 'Aqui no se que
va equis de', '6232');
Insert Into TakeCourse values('50011', 'LKJ45J6KJ45HK6HK45', '311', '100', 'Aqui no se que
va equis de', '6233');

```

Queries

Basic

1. List all students

```
SELECT *  
FROM Students
```

2. List all professors

```
SELECT *  
FROM Professor
```

3. List all departments

```
SELECT *  
FROM Department
```

4. List all courses

```
SELECT *  
FROM Courses
```

5. List all groups

```
SELECT *  
FROM Students
```

Simple Inputs

1. List of students given his ID and ordered by ID

```
SELECT *  
FROM Students  
WHERE sID = 'input'  
ORDER BY sID
```

2. List of departments given the name of the department ordered by department ID

```
SELECT *  
FROM Department  
WHERE dName = 'input'  
ORDER BY dId
```

3. List of teachers given his Id sorted by Id

```
SELECT *  
FROM Professor  
WHERE pID = 'input'  
ORDER BY pID
```

Complex Inputs

1. Courses per students given the id of a student.

```
SELECT c.cName, s.sName  
FROM students s, takecourse tk, course c, group g  
WHERE s.sID = tk.sID  
AND tk.tcGroupNumber = g.gNumber  
AND g.cNumber = c.cNumber  
AND s.sID = 'input'  
ORDER BY s.sID
```

2. ID, name of the teacher and the courses has given , given the teacher's id.

```
SELECT p.pID, p.pName, c.cName  
FROM professor p, course c, group gp  
WHERE gp.cNumber = c.cNumber  
AND gp.pID = p.pID  
AND p.pID = 'input'
```

3. ID and name of the teacher with the free schedules given by the teacher's id.

```
SELECT p.pID, p.pName, s.hTime  
FROM schedule s, professorschedule ps, professor p  
WHERE s.hId = ps.hId  
AND ps.pID = p.pID  
AND p.pID = 'input'
```

4. Result of ECOAS with their course number, name, group number, semester, year given by the teacher's id. Ordered by year, semester, course number and group.


```

SELECT g.gEcoa,c.cNumber, c.cName, g.gNumber, g.gSemester, g.gYear
FROM professor p, group g, course c
WHERE p.pID = g.pID
AND g.cNumber = c.cNumber
AND p.pID = 'input'
ORDER BY g.gYear, g.gSemester, c.cNumber, g.gID

```

Insert

1. Insert a student

```

INSERT INTO Students (sID, sUPRC, sName, sAddress, sPhoneNumber, sSex, sBDate,
sDepartment, sMajor) VALUES ( '{}', '{}', '{}', '{}', '{}', '{}','{}','{}')

```

2. insert a department

```

INSERT INTO Department (dId, dName, dNumber, dPhoneNumber, dOffice) VALUES
('{}', '{}', '{}', '{}', '{}')

```

3. Insert a teacher

```

INSERT INTO Professor (pID, pUPRC, pName, pAddress, pPhoneNumber, pSex,
pBDate) VALUES ( '{}', '{}', '{}', '{}', '{}', '{}','{}')

```

Delete

1. Delete a student

```

DELETE FROM Students
WHERE sID = 'input'

```

2. Delete a department

```

DELETE FROM Department
WHERE dId = {}

```

3. Delete a teacher

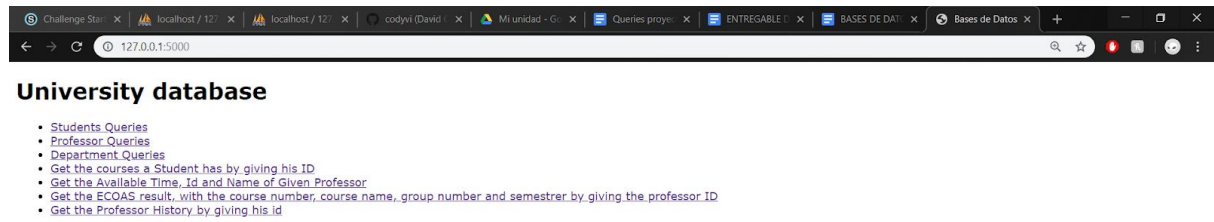
```

DELETE FROM Professor
WHERE pID = {}

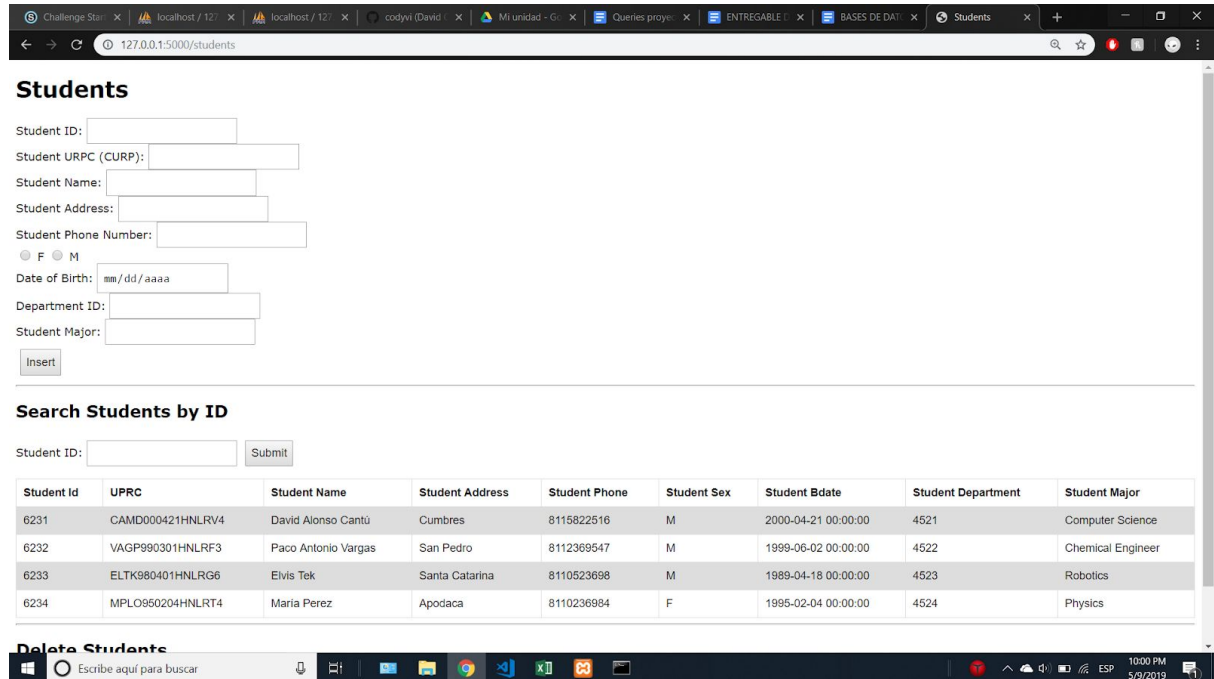
```

Storyboard

Index Page



Student Queries (Working List Student)



Search by ID query

Challenge StartUp x localhost / 127.0.0.1 x localhost / 127.0.0.1 x codyn (David Car x Mi unidad - Goog x Queries proyecto x BASES DE DATOS x Students x + - □ ×

← → ↻ 127.0.0.1:5000/students?slD=6231 🔍 ☆ 🛑 🗑️ 🔄

Students

Student ID:

Student URPC (CURP):

Student Name:

Student Address:

Student Phone Number:

☐ F ☒ M

Date of Birth:

Department ID:

Student Major:

Search Students by ID

Student ID:

Student Id	UPRC	Student Name	Student Address	Student Phone	Student Sex	Student Bdate	Student Department	Student Major
6231	CAMD000421HNLRV4	David Alonso Cantú	Cumbres	8115822516	M	2000-04-21 00:00:00	4521	Computer Science

Delete Students

Student ID:

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Insert Student

Challenge StartUp x localhost / 127.0.0.1 x localhost / 127.0.0.1 x codyn (David Car x Mi unidad - Goog x Queries proyecto x BASES DE DATOS x Students x + - □ ×

← → ↻ 127.0.0.1:5000/students?slD= 🔍 ☆ 🛑 🗑️ 🔄

Students

Student ID:

Student URPC (CURP):

Student Name:

Student Address:

Student Phone Number:

☐ F ☒ M

Date of Birth:

Department ID:

Student Major:

Search Students by ID

Student ID:

Student Id	UPRC	Student Name	Student Address	Student Phone	Student Sex	Student Bdate	Student Department	Student Major
6231	CAMD000421HNLRV4	David Alonso Cantú	Cumbres	8115822516	M	2000-04-21 00:00:00	4521	Computer Science
6232	VAGP990301HNLR5	Paco Antonio Vargas	San Pedro	8112369547	M	1999-06-02 00:00:00	4522	Chemical Engineer
6233	ELTK980401HNLRG6	Elvis Tek	Santa Catarina	8110523698	M	1989-04-18 00:00:00	4523	Robotics
6234	MPLO950204HNLR4	Maria Perez	Apodaca	8110236984	F	1995-02-04 00:00:00	4524	Physics

Delete Students

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Challenge StartUp: X localhost / 127.0.0.1:5000/students

Student ID:

Student URPC (CURP):

Student Name:

Student Address:

Student Phone Number:

☐ F ☐ M

Date of Birth:

Department ID:

Student Major:

Search Students by ID

Student ID:

Student Id	UPRC	Student Name	Student Address	Student Phone	Student Sex	Student Bdate	Student Department	Student Major
6231	CAMD000421HNLRV4	David Alonso Cantú	Cumbres	8115822516	M	2000-04-21 00:00:00	4521	Computer Science
6232	VAGP990301HNLR3	Paco Antonio Vargas	San Pedro	8112369547	M	1999-06-02 00:00:00	4522	Chemical Engineer
6233	ELTK980401HNLRG6	Elvis Tek	Santa Catarina	8110523698	M	1989-04-18 00:00:00	4523	Robotics
6234	MPLO950204HNLR4	Maria Perez	Apodaca	8110236984	F	1995-02-04 00:00:00	4524	Physics
6235	JPLO990134HNLR5	Juan Pablo	Gonzalitos	666555444	M	1999-01-21 00:00:00	4521	Computer Science

Delete Students

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Delete Student

Challenge StartUp: X localhost / 127.0.0.1:5000/students

Student URPC (CURP):

Student Name:

Student Address:

Student Phone Number:

☐ F ☐ M

Date of Birth:

Department ID:

Student Major:

Search Students by ID

Student ID:

Student Id	UPRC	Student Name	Student Address	Student Phone	Student Sex	Student Bdate	Student Department	Student Major
6231	CAMD000421HNLRV4	David Alonso Cantú	Cumbres	8115822516	M	2000-04-21 00:00:00	4521	Computer Science
6232	VAGP990301HNLR3	Paco Antonio Vargas	San Pedro	8112369547	M	1999-06-02 00:00:00	4522	Chemical Engineer
6233	ELTK980401HNLRG6	Elvis Tek	Santa Catarina	8110523698	M	1989-04-18 00:00:00	4523	Robotics
6234	MPLO950204HNLR4	Maria Perez	Apodaca	8110236984	F	1995-02-04 00:00:00	4524	Physics
6235	JPLO990134HNLR5	Juan Pablo	Gonzalitos	666555444	M	1999-01-21 00:00:00	4521	Computer Science

Delete Students

Student ID:

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Challenge StartUp x localhost / 127.0.0.1:5000/del_students

Student ID:

Student URPC (CURP):

Student Name:

Student Address:

Student Phone Number:

☐ F ☐ M

Date of Birth:

Department ID:

Student Major:

Search Students by ID

Student ID:

Student Id	UPRC	Student Name	Student Address	Student Phone	Student Sex	Student Bdate	Student Department	Student Major
6231	CAMD000421HNLRV4	David Alonso Cantú	Cumbres	8115822516	M	2000-04-21 00:00:00	4521	Computer Science
6232	VAGP990301HNLRV3	Paco Antonio Vargas	San Pedro	8112369547	M	1999-06-02 00:00:00	4522	Chemical Engineer
6233	ELTK980401HNLRG6	Elvis Tek	Santa Catarina	8110523698	M	1989-04-18 00:00:00	4523	Robotics
6234	MPL0950204HNLRV4	Maria Perez	Apodaca	8110236984	F	1995-02-04 00:00:00	4524	Physics

Delete Students

Student ID:

Professor Queries (Working List Professors)

Challenge StartUp x localhost / 127.0.0.1:5000/professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☐ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4578	PEPP541016HASCIP07	Pepe Pecas	Por aqui	4619293210	M	1954-10-16 00:00:00
4579	ELPLA541016HASCIP07	Elba Lazo	Por ahí	8271029291	F	1988-10-16 00:00:00
4580	PER4541016HASCIP07	Pepe Roni	Por allá	8372918539	M	1990-10-16 00:00:00
4581	ELPU541016HASCIP07	Eisa Pato	Por acuyá	75831983829	F	1970-10-16 00:00:00
4582	PEPLA54101HASCIP07	Pepe Lotas	Hasta Cumbres...	9381927492	M	1989-10-16 00:00:00

Delete Professor

Professor ID:

Search by ID Query

Challenge StartUp x localhost / 127.0.0.1:5000/professor?pid=4580

Professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☐ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4580	PER4541016HASCIP07	Pepe Roni	Por allá	8372918539	M	1990-10-16 00:00:00

Delete Professor

Professor ID:

Windows 10 taskbar: Escribe aquí para buscar, [Taskbar icons], 10:10 PM 5/9/2019

Challenge StartUp x localhost / 127.0.0.1:5000/professor

Professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☒ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4578	PEPP541016HASCIP07	Pepe Pecas	Por aquí	4619293210	M	1954-10-16 00:00:00
4579	ELPLA541016HASCIP07	Elba Lazo	Por ahí	8271029291	F	1988-10-16 00:00:00
4580	PER4541016HASCIP07	Pepe Roni	Por allá	8372918539	M	1990-10-16 00:00:00
4581	ELPU541016HASCIP07	Elsa Palo	Por acuyá	75831983829	F	1970-10-16 00:00:00
4582	PEPLA54101HASCIP07	Pepe Lotas	Hasta Cumbres...	9381927492	M	1989-10-16 00:00:00

Delete Professor

Windows 10 taskbar: Escribe aquí para buscar, [Taskbar icons], 10:08 PM 5/9/2019

Challenge StartUp x localhost / 127.0.0.1:5000/professor

Professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☐ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4578	PEPP541016HASCIP07	Pepe Pecas	Por aqui	4619293210	M	1954-10-16 00:00:00
4579	ELPLA541016HASCIP07	Elba Lazo	Por ahi	8271029291	F	1988-10-16 00:00:00
4580	PER4541016HASCIP07	Pepe Roni	Por alla	8372918539	M	1990-10-16 00:00:00
4581	ELPU541016HASCIP07	Elsa Pato	Por acuya	75831983829	F	1970-10-16 00:00:00
4582	PEPLA541011HASCIP07	Pepe Lotas	Hasta Cumbres...	9381927492	M	1989-10-16 00:00:00
4583	GVBG900110HASCIP07	Barbara Garza	En su Casa	123456789	F	1990-01-10 00:00:00

Delete Professor

Escribe aquí para buscar

Delete Professor

Challenge StartUp x localhost / 127.0.0.1:5000/professor

Professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☐ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4578	PEPP541016HASCIP07	Pepe Pecas	Por aqui	4619293210	M	1954-10-16 00:00:00
4579	ELPLA541016HASCIP07	Elba Lazo	Por ahi	8271029291	F	1988-10-16 00:00:00
4580	PER4541016HASCIP07	Pepe Roni	Por alla	8372918539	M	1990-10-16 00:00:00
4581	ELPU541016HASCIP07	Elsa Pato	Por acuya	75831983829	F	1970-10-16 00:00:00
4582	PEPLA541011HASCIP07	Pepe Lotas	Hasta Cumbres...	9381927492	M	1989-10-16 00:00:00
4583	GVBG900110HASCIP07	Barbara Garza	En su Casa	123456789	F	1990-01-10 00:00:00

Delete Professor

Professor ID:

Escribe aquí para buscar

Professor

Professor ID:

Professor URPC (CURP):

Professor Name:

Professor Address:

Professor Phone Number:

☐ F ☐ M

Date of Birth:

Search Professor by ID:

Professor ID:

Professor Id	UPRC	Professor Name	Professor Address	Professor Phone	Professor Sex	Professor Bdate
4578	PEPP541016HASCIP07	Pepe Pecas	Por aqui	4619293210	M	1954-10-16 00:00:00
4579	ELPLA541016HASCIP07	Elba Lazo	Por ahi	8271029291	F	1988-10-16 00:00:00
4580	PER4541016HASCIP07	Pepe Roni	Por alla	8372918539	M	1990-10-16 00:00:00
4581	ELPU541016HASCIP07	Elsa Pato	Por acuya	75831983829	F	1970-10-16 00:00:00
4582	PEPLA541016HASCIP07	Pepe Lotas	Hasta Cumbres...	9381927492	M	1989-10-16 00:00:00

Delete Professor

Professor ID:

Department Queries (List Department Working)

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100
4522	Chemistry Department	2	8110236361	200
4523	Electronic Department	3	8110236251	300
4524	Physics Department	4	8110236861	400

Delete Department

Department ID:

Search by Name

Challenge StartUp Visi x localhost / 127.0.0.1 / localhost / 127.0.0.1 / codyvi (David Cantú) / Mi unidad - Google D... Department x BASES DE DATOS FIN... + - □ X

127.0.0.1:5000/department?dName=Computer+Department

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100

Delete Department

Department ID:



Insert Department

Challenge StartUp Visi x localhost / 127.0.0.1 / localhost / 127.0.0.1 / codyvi (David Cantú) / Mi unidad - Google D... Department x BASES DE DATOS FIN... + - □ X

127.0.0.1:5000/department?dName=

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100
4522	Chemistry Department	2	8110236361	200
4523	Electronic Department	3	8110236251	300
4524	Physics Department	4	8110236861	400

Delete Department

Department ID:



Challenge StartUp Visi x localhost / 127.0.0.1 / x localhost / 127.0.0.1 / x codyvi (David Cantú) / x Mi unidad - Google D... x Department x BASES DE DATOS FIN... x + - □ ×

← → ↻ 127.0.0.1:5000/department 🔍 ☆ 📱 🗂 🌐

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100
4522	Chemistry Department	2	8110236361	200
4523	Electronic Department	3	8110236251	300
4524	Physics Department	4	8110236861	400
4525	Arts	5	123456789	500

Delete Department

Department ID:

Windows Escribe aquí para buscar 📄 📧 📁 📅 📌 📎 📏 📐 📑 📒 📓 📔 📕 📖 📗 📘 📙 📚 📛 📜 📝 📞 📟 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿

10:14 PM 5/9/2019

Delete Department

Challenge StartUp Visi x localhost / 127.0.0.1 / x localhost / 127.0.0.1 / x codyvi (David Cantú) / x Mi unidad - Google D... x Department x BASES DE DATOS FIN... x + - □ ×

← → ↻ 127.0.0.1:5000/department 🔍 ☆ 📱 🗂 🌐

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100
4522	Chemistry Department	2	8110236361	200
4523	Electronic Department	3	8110236251	300
4524	Physics Department	4	8110236861	400
4525	Arts	5	123456789	500

Delete Department

Department ID:

Windows Escribe aquí para buscar 📄 📧 📁 📅 📌 📎 📏 📐 📑 📒 📓 📔 📕 📖 📗 📘 📙 📚 📛 📜 📝 📞 📟 📠 📡 📢 📣 📤 📥 📦 📧 📨 📩 📪 📫 📬 📭 📮 📯 📰 📱 📲 📳 📴 📵 📶 📷 📸 📹 📺 📻 📼 📽 📾 📿

10:14 PM 5/9/2019

Challenge StartUp Visi x localhost / 127.0.0.1 / x localhost / 127.0.0.1 / x codyvi (David Camú) x Mi unidad - Google D... x Department x BASES DE DATOS FIN... x + - □ ×

127.0.0.1:5000/del_departments

Department

Department ID:

Department Name:

Department Number:

Department Phone Number:

Department Office Number:

Search Department by Name:

Department Name:

Department Id	Department Name	Department Number	Department Phone	Department Office Number
4521	Computer Department	1	8110236541	100
4522	Chemistry Department	2	8110236361	200
4523	Electronic Department	3	8110236251	300
4524	Physics Department	4	8110236861	400

Delete Department

Department ID:

Windows Escribe aquí para buscar

10:14 PM 5/9/2019

Get the Course name that a student is taking by Giving a Student ID

Challenge StartUp Visi x localhost / 127.0.0.1 / x localhost / 127.0.0.1 / x codyvi (David Camú) x Mi unidad - Google D... x Course by Student Id x BASES DE DATOS FIN... x + - □ ×

127.0.0.1:5000/CourseBySID

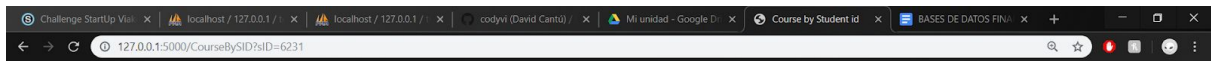
Get the Course name that a student is taking by Giving a Student ID

Student ID:

Student Name	Course Name
David Alonso Cantú	Sepultura de Vatos
David Alonso Cantú	Bases de Gatos
David Alonso Cantú	AI O ES
Paco Antonio Vargas	Huevassign
Paco Antonio Vargas	Bases de Gatos
Paco Antonio Vargas	AI O ES
Elvis Tek	Algoritmos
Elvis Tek	Soluciones
Elvis Tek	Tijeritas 3
Maria Perez	Bases de Gatos
Maria Perez	Bases de Gatos
Maria Perez	Deestructura de vatos

Windows Escribe aquí para buscar

10:15 PM 5/9/2019



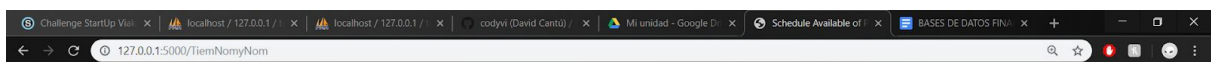
Get the Course name that a student is taking by Giving a Student ID

Student ID:

Student Name	Course Name
David Alonso Cantú	Sepultura de Vatos
David Alonso Cantú	Bases de Gatos
David Alonso Cantú	AI O ES



Get the Professor ID, Professor Name and Schedules Available by giving Professor ID

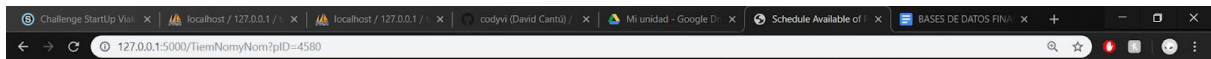


Get the Professor ID, Professor Name and Schedules Available by giving Professor ID

Professor ID:

Professor ID	Professor Name	Schedule Available
4578	Pepe Pecas	0000-00-00 07:30:00.000000
4579	Elba Lazo	0000-00-00 08:30:00.000000
4580	Pepe Roni	0000-00-00 09:30:00.000000
4581	Elsa Pato	0000-00-00 10:30:00.000000
4582	Pepe Lotas	0000-00-00 12:30:00.000000





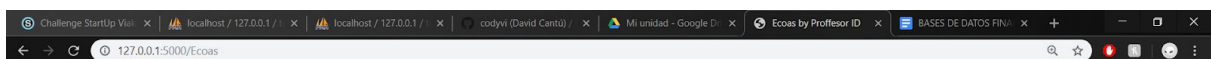
Get the Professor ID, Professor Name and Schedules Available by giving Professor ID

Professor ID:

Professor ID	Professor Name	Schedule Available
4580	Pepe Roni	0000-00-00 09:30:00.000000



Get the ECOAS result, with the course number, course name, group number and semester by giving the professor ID



Get the ECOAS result, with the course number, course name, group number and semester by giving the professor ID

Professor ID:

Ecoas Result	Course Number	Course Name	Group Number	Semester	Year
100	56	Bases de Gatos	306	Aug-Dec	0070-00-00 07:30:00.000000
100	57	Soluciones	307	Aug-Dec	0070-00-00 07:30:00.000000
100	59	AI O ES	309	Aug-Dec	0070-00-00 07:30:00.000000
100	61	Tijeritas 3	311	Aug-Dec	0070-00-00 07:30:00.000000
100	54	Bases de Gatos	304	Jan-May	0070-00-00 07:30:00.000000
100	55	Bases de Gatos	305	Jan-May	0070-00-00 07:30:00.000000
100	58	Destrucción de votos	308	Jan-May	0070-00-00 07:30:00.000000
100	60	AI O ES	310	Jan-May	0070-00-00 07:30:00.000000
100	53	Bases de Gatos	303	Aug-Dec	1020-00-00 07:30:00.000000
100	52	Algoritmos	302	Jan-May	1050-00-00 07:30:00.000000
100	50	Sepultura de Vatos	300	Aug-Dec	2018-00-00 07:30:00.000000
100	51	Huevassign	301	Aug-Dec	2018-00-00 07:30:00.000000



Challenge StartUp Vis... localhost / 127.0.0.1 / localhost / 127.0.0.1 / codyvi (David Camú) / Mi unidad - Google D... Ecoas by Professor ID BASES DE DATOS FIN...

127.0.0.1:5000/Ecoas?plD=4578

Get the ECOAS result, with the course number, course name, group number and semester by giving the professor ID

Professor ID: Submit

Ecoas Result	Course Number	Course Name	Group Number	Semester	Year
100	55	Bases de Gatos	305	Jan-May	0070-00-00 07:30:00.000000
100	60	AI O ES	310	Jan-May	0070-00-00 07:30:00.000000
100	50	Sepultura de Vatos	300	Aug-Dec	2018-00-00 07:30:00.000000

Escribe aquí para buscar

Get the Professor History by giving his id

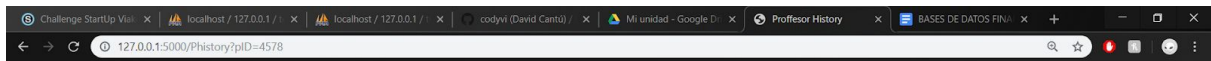
Challenge StartUp Vis... localhost / 127.0.0.1 / localhost / 127.0.0.1 / codyvi (David Camú) / Mi unidad - Google D... Profesor History BASES DE DATOS FIN...

127.0.0.1:5000/Phistory?plD=

Get the Professor History by giving his id

Professor ID: Submit

Professor ID	Professor Name	Course Name
4578	Pepe Pecas	Sepultura de Vatos
4578	Pepe Pecas	Bases de Gatos
4578	Pepe Pecas	AI O ES
4579	Elba Lazo	Huevassign
4579	Elba Lazo	Bases de Gatos
4579	Elba Lazo	Tijeritas 3
4580	Pepe Roni	Algoritmos
4580	Pepe Roni	Soluciones
4581	Elsa Pato	Bases de Gatos
4581	Elsa Pato	Deestructura de vatos
4582	Pepe Lotas	Bases de Gatos
4582	Pepe Lotas	AI O ES



Get the Professor History by giving his id

Professor ID:

Professor ID	Professor Name	Course Name
4578	Pepe Pecas	Sepultura de Vatos
4578	Pepe Pecas	Bases de Gatos
4578	Pepe Pecas	AI O ES



Conclusion

Working on this project has given us a perspective on how to work with databases and how to integrate them into a project that involves a web page. As well as to simulate a work environment in which we work using methodologies for software development.

Initially, technological obstacles were encountered that prevented the optimal development of the database. Also, it was complicated to implement our initial database design in SQL, so we had to make slight changes to our design to be able to do it correctly.

Finally, the database was perfectly connected, the creation of the database was done, the inserts and assigned queries were finished without errors and the project concluded successfully.