



CSE 3139
DATABASE MANAGEMENT SYSTEMS
PROJECT

UDEMY DEMO DATABASE

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What is Udemy?

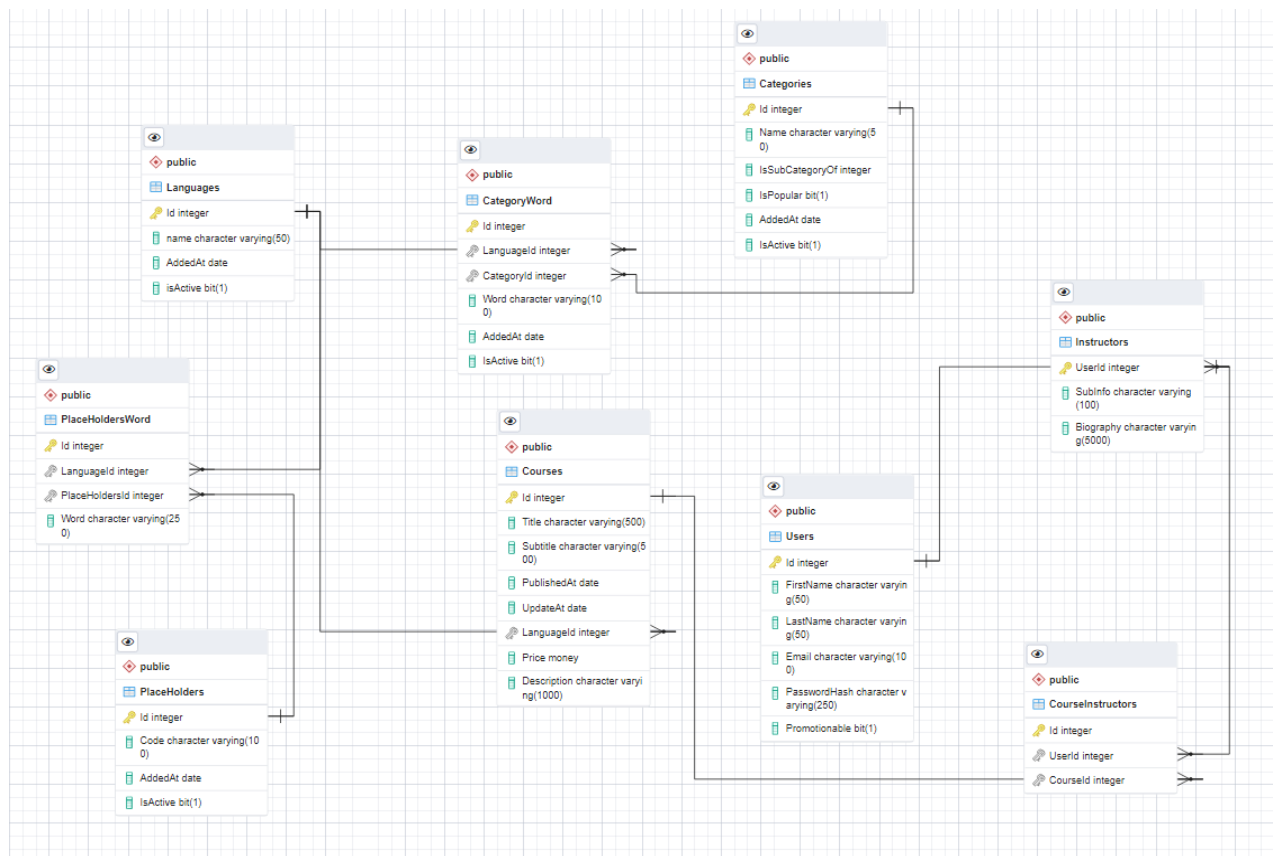
Udemy is an online education platform. If someone wants to educate themselves, he or she can purchase courses on Udemy. After purchasing a course, the user will have lifetime access. They also have the opportunity to ask the course instructor questions.

The database we have made is the demo version of Udemy. It keeps the important things on Udemy and explains how it works. Our database consists of 9 tables. These tables work in conjunction with each other. The data we have entered in these tables are random data, we would like to point that out in order to show the output samples.

The reason we created the language table is because Udemy is not only used in our country, it is a platform used worldwide. The category table classifies the trainings on Udemy and makes it easy for the user to access them. The table we refer to as PlaceHolders holds the words and places in the interface, we see on the Udemy platform. PlaceHoldersWord indicates the language from which these words are derived. Our instructors' table holds educators' information. So that users can decide to take a course by looking at this information. User information is stored in the Users table. After registering with Udemy, we do not register again and again. Our data remains recorded, and we can easily access it. The main reason we keep the CourseInstructors table and get the userId here from the instructor is to prevent a non-educator from pretending to be teaching. In addition, we can access which instructor taught which course via id.

In short, this is how our database works.

E-R DIAGRAM



This is our E-R Diagram. Now we will explain this diagram to you. First, we will explain to you what primary key, unique key and foreign key are.

Primary Key = Primary Key. When creating tables in relational database management systems, a column is created as an identification number for each record of the table, and a unique value is given for each record of the table in this column. This can be thought of as a Tax Identification Number or a National Identification Number. In other words, when querying the table, we only need to provide the unique ID of that record to find the record we want.

Unique Key = In database relational modeling and implementation, a unique key is a set of attributes in a relational database table such that: the table does not have two separate rows or records with the same values for those columns.

Foreign Key = It is the combination of columns or columns used in relational databases to connect two tables to each other and apply them. SQL Foreign Key values express the combination of columns or columns that match the Primary Key in a different table.

Primary keys in our database;

Languages (Id), PlaceHoldersWord(Id), PlaceHolders(Id), CategoryWord(Id), Courses(Id), Categories(Id), Users(Id), Instructors(UserId), CourseInstructors(Id)

Unique keys in our database;

PlaceHoldersWord(LanguageId,PlaceHoldersId), CategoryWord(LanguageId, CategoryId), Courses(LanguageId), CourseInstructor(UserId,CourseId)

Foreign keys in our database;

The LanguageId in PlaceHoldersWord references the Id in the Languages table.

PlaceHoldersId in PlaceHoldersWord references the Id in Placeholder table.

The CategoryId in the CategoryWord table references the Id in the Categories table, and the LanguageId in the CategoryWord table references the Id in the Languages table.

The LanguageId in the Courses table references the Id in the Languages table.

The CourseId in the CourseInstructors table references the Id in the Courses table.

We do not get the UserId in the CourseInstructors table from the Id in the User table. Because you can give a user who is not an instructor as an instructor, so UserId takes the UserId in the Instructors table as a reference.

There is a one-to-one relationship between the Id in the User table and the UserId in the Instructors table.

CREATE TABLES AND COLUMNS

Categories Table and Columns

```
CREATE TABLE IF NOT EXISTS public."Categories"
(
    "Id" integer NOT NULL,
    "Name" character varying(50) COLLATE pg_catalog."default" NOT NULL,
    "IsSubCategoryOf" integer NOT NULL,
    "IsPopular" bit(1) NOT NULL,
    "AddedAt" date NOT NULL,
    "IsActive" bit(1) NOT NULL,
    CONSTRAINT "Categories_pkey" PRIMARY KEY ("Id")
);
```

Our Categories table includes Id, Name, IsSubCategoryOf, IsPopular, AddedAt, IsActive columns.

Shows the categories of trainings available on Udemy.

Id (int)= It is the unique identification number of the categories themselves.

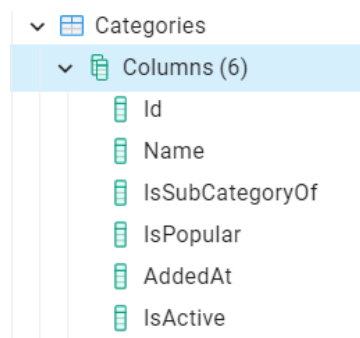
Name (varchar(50)) = It holds the names of the categories. varchar(50) is its letter limit.

IsSubCategoryOf (int) = Categories are divided into subcategories within themselves. Here we keep them as int.

IsPopular (bit) =Indicates whether it is a popular education. We used bit data type because we can understand directly with 0-1 status.

AddedAt (date) = Specifies and holds the date the training was added.

IsActive (bit) = Courses are not deleted on Udemy, so by keeping inactive courses with bit data type, we can understand whether they are active and inform the other person.



Categories
Columns (6)
Id
Name
IsSubCategoryOf
IsPopular
AddedAt
IsActive

CategoryWord Table and Columns

```
CREATE TABLE IF NOT EXISTS public."CategoryWord"
(
    "Id" integer NOT NULL,
    "LanguageId" integer NOT NULL,
    "CategoryId" integer NOT NULL,
    "Word" character varying(100) COLLATE pg_catalog."default" NOT NULL,
    "AddedAt" date NOT NULL,
    "IsActive" bit(1),
    CONSTRAINT "CategoryWord_pkey" PRIMARY KEY ("Id"),
    CONSTRAINT "CategoryId" UNIQUE ("CategoryId"),
    CONSTRAINT "LanguageId" UNIQUE ("LanguageId")
);
```

Our CategoriesWord table includes Id, LanguageId, CategoryId, Word, AddedAt and IsActive columns.

In this table, we keep the word equivalents of the categories. Because every language has different word equivalents.

We could have kept it in a single table, but we separated it because we didn't want to make the structure complicated.

Id (int) = A unique number belonging to the CategoryWord.

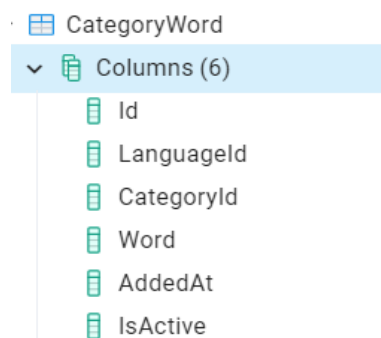
LanguageId (int) = Returns the id of which language is used

CategoryId (int) = Indicates which category it belongs to.

Word (varchar(100)) = It tells what it belongs to, which language it is written in.

AddedAt (date) = Shows when it was added

IsActive (bit) = Indicates whether it is still active on Udemy.



CourseInstructors Table and Columns

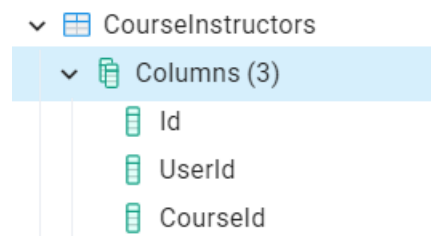
```
CREATE TABLE IF NOT EXISTS public."CourseInstructors"  
(  
    "Id" integer NOT NULL,  
    "UserId" integer NOT NULL,  
    "CourseId" integer NOT NULL,  
    CONSTRAINT "CourseInstructors_pkey" PRIMARY KEY ("Id"),  
    CONSTRAINT "CourseId" UNIQUE ("CourseId"),  
    CONSTRAINT "UserId" UNIQUE ("UserId")  
);
```

A course can have multiple instructors, so we created the CourseInstructors table.

Our CourseInstructors table includes Id, UserId, CourseId columns.

UserId (int) = Indicates which instructor it belongs to.

CourseId (int) = It helps us understand which course it is.



Courses Table and Columns

```
CREATE TABLE IF NOT EXISTS public."Courses"
(
    "Id" integer NOT NULL,
    "Title" character varying(500) COLLATE pg_catalog."default" NOT NULL,
    "Subtitle" character varying(500) COLLATE pg_catalog."default" NOT NULL,
    "PublishedAt" date NOT NULL,
    "UpdateAt" date NOT NULL,
    "LanguageId" integer NOT NULL,
    "Price" numeric NOT NULL,
    "Description" character varying(1000) COLLATE pg_catalog."default" NOT NULL,
    CONSTRAINT "Courses_pkey" PRIMARY KEY ("Id"),
    CONSTRAINT "LanguageId" UNIQUE ("LanguageId")
);
```

This is our courses table. In this table, the data of the courses are kept and can be used by other tables.

Our Courses table includes Id, Title, SubTitle, PublishedAt, UpdateAt, LanguageId, Price and Description columns.

Title (varchar(500)) = Holds the course title. We set the word limit to 500.

Subtitle (varchar(500)) = The titles are divided into subheadings and a more detailed search is made and the searched topic is found more quickly.

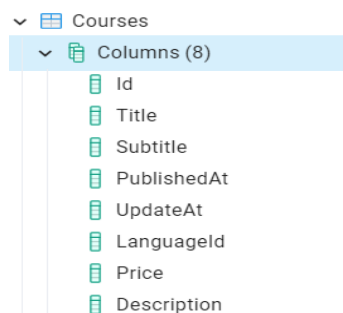
PublishedAt (date) = Shows the release date of the course

UpdateAt (date) = Shows when it was last updated.

LanguageId (int) = It shows which language it is and gives its id.

Price (numeric) = Shows how much the courses have been sold for.

Description (varchar(1000)) = Explains and promotes the course. It talks about its contents. It talks about what you will learn.



Instructors Table and Columns

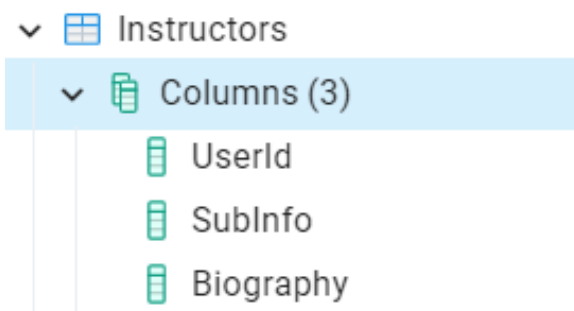
```
CREATE TABLE IF NOT EXISTS public."Instructors"  
(  
    "UserId" integer NOT NULL,  
    "SubInfo" character varying(100) COLLATE pg_catalog."default" NOT NULL,  
    "Biography" character varying(5000) COLLATE pg_catalog."default" NOT NULL,  
    CONSTRAINT "Instructors_pkey" PRIMARY KEY ("UserId")  
);
```

This is our instructor table. Here, there are brief information about the instructors, their Ids and their biographies.

UserId (int) = It holds the ids of the Instructors.

SubInfo (varchar(100)) = It gives brief information about the Instructors. It is in summary form.

Biography (varchar(5000)) = Provides us with a detailed resume.



Languages Table and Columns

```
CREATE TABLE IF NOT EXISTS public."Languages"  
(  
    "Id" integer NOT NULL,  
    name character varying(50) COLLATE pg_catalog."default" NOT NULL,  
    "AddedAt" date NOT NULL,  
    "isActive" bit(1) NOT NULL,  
    CONSTRAINT "Languages_pkey" PRIMARY KEY ("Id")  
);
```

This is our Languages table. In this table, the languages used and found in udemy are kept.

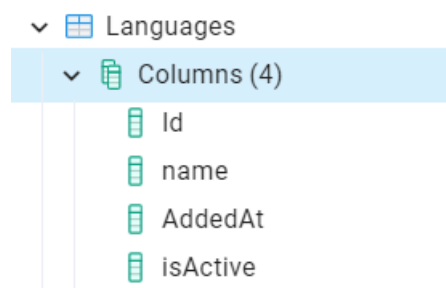
Our Languages table includes Id, name, AddedAt, IsActive columns.

Id (int) = It is the identity number of the languages themselves.

name (varchar(50)) = Displays the names of languages. There is a 50 character limit.

AddedAt (date) = Indicates when languages were added to udemy.

isActive (bit) = Shows whether your languages are still active on udemy or not.



PlaceHolders Table and Columns

```
CREATE TABLE IF NOT EXISTS public."PlaceHolders"  
(  
    "Id" integer NOT NULL,  
    "Code" character varying(100) COLLATE pg_catalog."default" NOT NULL,  
    "AddedAt" date NOT NULL,  
    "IsActive" bit(1) NOT NULL,  
    CONSTRAINT "PlaceHolders_pkey" PRIMARY KEY ("Id")  
);
```

This is our PlaceHolders table. This table keeps the texts, words and fields that appear on the screen when you enter udemy's site.

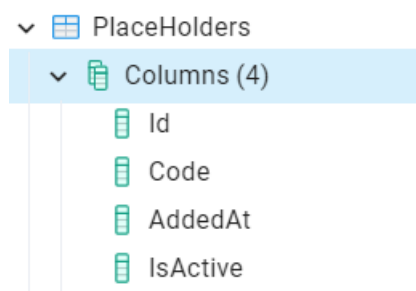
Our PlaceHolders table includes Id, Code, AddedAt, IsActive columns.

Id (int)

Code (varchar(100)) = Here we reach only one thing. We use this column to give us what we want and point there.

AddedAt (date) = Shows when it was added

IsActive (bit) = Indicates whether it is still active on Udemy.



PlaceHoldersWord Table and Columns

```
CREATE TABLE IF NOT EXISTS public."PlaceHoldersWord"
(
    "Id" integer NOT NULL,
    "LanguageId" integer NOT NULL,
    "PlaceHoldersId" integer NOT NULL,
    "Word" character varying(250) COLLATE pg_catalog."default" NOT NULL,
    CONSTRAINT "PlaceHoldersWord_pkey" PRIMARY KEY ("Id"),
    CONSTRAINT "PlaceHoldersId" UNIQUE ("PlaceHoldersId"),
    CONSTRAINT "LanguageId" UNIQUE ("LanguageId")
);
```

This is our PlaceHoldersWord table. Here we keep information about the languages of the words we hold in PlaceHolders. In other words, we indicate in which language it is written and which language is used.

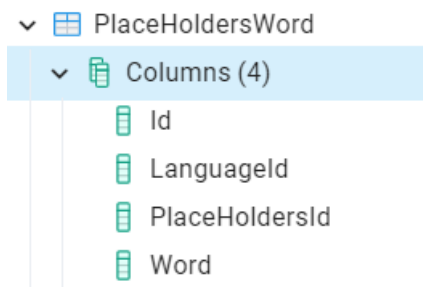
Our PlaceHoldersWord table includes Id, LanguageId, PlaceHoldersId, Word columns.

Id (int)

LanguageId (int) = It indicates in which language it is written by giving its id.

PlaceHoldersId (int) = It indicates which word it belongs to with its Id.

Word (varchar(250)) = The word in the language in which it was written gives us its answer.



Users Table and Columns

```
CREATE TABLE IF NOT EXISTS public."Users"
(
    "Id" integer NOT NULL,
    "FirstName" character varying(50) COLLATE pg_catalog."default" NOT NULL,
    "LastName" character varying(50) COLLATE pg_catalog."default" NOT NULL,
    "Email" character varying(100) COLLATE pg_catalog."default" NOT NULL,
    "PasswordHash" character varying(250) COLLATE pg_catalog."default" NOT NULL,
    "Promotionable" bit(1) NOT NULL,
    CONSTRAINT "Users_pkey" PRIMARY KEY ("Id")
);
```

This is our Users table. Here, the information of the people who use and take charge of udemy is kept.

Our Users table includes Id, FirstName, LastName, Email, PasswordHash, Promotionable columns.

Id(int)

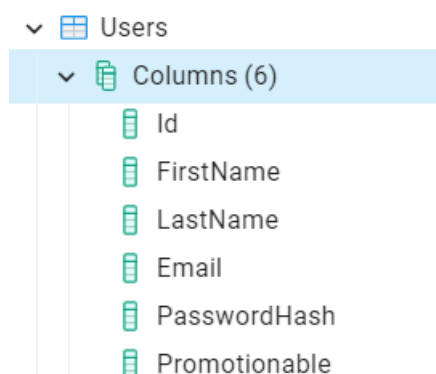
FirstName(varchar(50)) = Holds the user's name

LastName(varchar(50)) = Keeps the user's last name

Email(varchar(100)) = It keeps the e-mail information that allows the user to log in to udemy.

PasswordHash(varchar(250)) =After entering the Udemy email, it prompts the user for a password. This password is never kept open in the database. Hash encrypts your password according to certain algorithms.

Promotionable (bit) = It indicates whether the user has the promotion or not.



We can automatically increase the Id numbers by making the Ids in the tables identity.

NOTE = We have explained tables and columns. The ALTER TABLE command is used to add columns to the table, for this we will show an example.

ALTER TABLE

```
ALTER TABLE IF EXISTS public."Courses"  
  ADD CONSTRAINT "LanguageId" FOREIGN KEY ("LanguageId")  
  REFERENCES public."Languages" ("Id") MATCH SIMPLE  
  ON UPDATE NO ACTION  
  ON DELETE NO ACTION  
  NOT VALID;
```

```
ALTER TABLE IF EXISTS public."Instructors"  
  ADD CONSTRAINT "UserId" FOREIGN KEY ("UserId")  
  REFERENCES public."Users" ("Id") MATCH SIMPLE  
  ON UPDATE NO ACTION  
  ON DELETE NO ACTION  
  NOT VALID;
```

This is how the information I have explained above is placed in the tables.

INSERT INTO

Adds one or more records to the table. This is called an insert query.

```
INSERT INTO public."Categories"(  
    "Id", "Name", "IsSubCategoryOf", "IsPopular", "AddedAt", "IsActive")  
VALUES (11, 'Software', '2', '1', '18.12.2022', '1');
```

```
INSERT 0 1
```

```
Query returned successfully in 68 msec.
```

We are adding new records and new categories and courses on udemy with insert into. We primarily use it to enter information, but its general purpose on udemy is not all.

SELECT FROM

This command allows us to access the data on the database using the necessary attributes.

```
select * from "Categories"  
  
select "Id", "Title", "Subtitle", "PublishedAt", "UpdatedAt", "LanguageId", "Price", "Description"  
from "Courses"  
  
select * from "Instructors"
```

DELETE CASCADE

There is no direct deletion event on the UdeMy platform. Added courses or instructors have the status of being active or not.

UPDATE

It is used to update changing course prices, course information, instructor information, and information that is subject to change on the UdeMy platform.

Before:

9	9	Music	9	1	2022-12-14	0
---	---	-------	---	---	------------	---

Input:

```
UPDATE public."Categories"  
  SET "Id"=9, "Name"='Music', "IsSubCategoryOf"=29, "IsPopular"='0', "AddedAt"='15.12.2022', "IsActive"='0'  
 WHERE "Id" = 9;
```

After:

9	9	Music	29	0	2022-12-15	0
---	---	-------	----	---	------------	---

ORDER BY

The Order by command allows us to rank the prices of courses registered on the Udemy platform from most to least. And by setting limits, we can access certain courses.

1-) Input:

```
select "Title","Price" from "Courses" order by "Price" asc
```

Output:

	Title character varying (500) 🔒	Price numeric 🔒
1	Digital Marketing	20.00
2	Management	30.00
3	Economics	35.00
4	MobilApplication	40.00
5	Engineering	45.00
6	Web Design	45.00
7	Web Design	45.00
8	Travel	45.00
9	Hardware Design	50.00
10	Photography	100.00

JOINS

During database design and table creation, tables are divided into various parts, preventing data duplication.

Segmented tables may not make sense on their own.

Tables must be joined in order for the parts to be meaningful.

Tables are joined virtually using the SQL JOIN statement and the data becomes meaningful.

1

select * from "CategoryWord" natural join "PlaceHoldersWord"

Data output

Messages

Notifications

	<div>Id</div> <div>integer</div> <div></div>	<div>LanguageId</div> <div>integer</div> <div></div>	<div>Word</div> <div>character varying</div> <div></div>	<div>CategoryId</div> <div>integer</div> <div></div>	<div>AddedAt</div> <div>date</div> <div></div>	<div>IsActive</div> <div>bit</div> <div></div>	<div>PlaceHoldersId</div> <div>integer</div> <div></div>
1	1	1	Turkish	1	2022-12-15	1	1
2	2	2	English	2	2022-12-15	1	2
3	3	3	German	3	2022-12-15	1	3
4	6	6	Italian	6	2022-12-15	1	6
5	7	7	Arabic	7	2022-12-15	1	7
6	8	8	Chinese	8	2022-12-15	1	8
7	9	9	Portuguese	9	2022-12-15	1	9
8	10	10	Korean	10	2022-12-15	1	10

TABLE and VALUES

Categories Table

Id [PK] integer	Name character varying (50)	IsSubCategoryOf integer	IsPopular bit	AddedAt date	IsActive bit
1	Software	21	1	2022-12-15	0
2	Hardware	22	1	2022-12-15	1
3	Business	23	1	2022-12-15	0
4	Finance	24	1	2022-12-15	1
5	Marketing	25	1	2022-12-15	1
6	Design	26	0	2022-12-15	1
7	Lifestyle	27	1	2022-12-15	1
8	Photography/Video	28	1	2022-12-15	1
10	Academic/Teaching	30	1	2022-12-15	1
9	Music	9	1	2022-12-14	0

CategoryWord Table

Id [PK] integer	LanguageId integer	CategoryId integer	Word character varying (100)	AddedAt date	IsActive bit
1	1	1	Turkish	2022-12-15	1
2	2	2	English	2022-12-15	1
3	3	3	German	2022-12-15	1
4	4	4	Spanish	2022-12-15	1
5	5	5	French	2022-12-15	1
6	6	6	Italian	2022-12-15	1
7	7	7	Arabic	2022-12-15	1
8	8	8	Chinese	2022-12-15	1
9	9	9	Portuguese	2022-12-15	1
10	10	10	Korean	2022-12-15	1

CourseInstructors Table

Id [PK] integer	UserId integer	CourseId integer
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10

Courses Table

Id [PK] integer	Title character varying (500)	Subtitle character varying (500)	PublishedAt date	UpdatedAt date	LanguageId integer	Price money	Description character varying (1000)
1	MobilApplication	Flutter	2022-12-15	2022-12-22	1	?40,00	Advance mobile app course with Flutter
2	Hardware Design	VHDL	2022-12-15	2022-12-22	2	?50,00	Advance hardware design course with VHDL
3	Management	Product Management	2022-12-15	2022-12-22	3	?30,00	Intermediate product management course
4	Economics	Macroeconomics	2022-12-15	2022-12-22	4	?35,00	Introduction to macroeconomics
5	Digital Marketing	Startup	2022-12-15	2022-12-22	5	?20,00	We will find answers to questions of what is a startup and ...
6	Web Design	Photoshop	2022-12-15	2022-12-22	6	?45,00	How to Photoshop
7	Web Design	Photoshop	2022-12-15	2022-12-22	7	?45,00	How to Photoshop
8	Travel	Sailing	2022-12-15	2022-12-22	8	?45,00	Advance sailing techniques
9	Photography	Mobile Photography	2022-12-15	2022-12-22	9	?100,00	Advance photographer course
10	Engineering	Control System	2022-12-15	2022-12-22	10	?45,00	What are control system ? What does it do?





Instructors Table

Userid [PK] integer	Subinfo character varying (100)	Biography character varying (5000)
1	Didem Abidin	Department of Hardware Faculty Member BSc - MSc: Marmara University, PhD: Dokuz Eylül University
2	Bora Canbula	Software Department Lecturer BSc - MSc - PhD: Manisa Celal Bayar University
3	Muhammet Gökhan Ci...	Department of Computer Science Lecturer cinsdikici.com BSc - MSc - PhD: Ege University
4	Övünç Öztürk	Deputy Head of Department Head of Computer Science Department BSc: Middle East Technical University, MSc - PhD: Ege University
5	Zeynep Çipiloğlu	Deputy Head of Department Department of Computer Science Lecturer BSc - MSc - PhD: Bilkent University , Visiting Researcher: ETH Zurich
6	Birim Balcı	Department of Computer Science Lecturer BSc - MSc: Marmara University, PhD: Ege University
7	Hakan Murat Karaca	Head of Hardware Department BSc: Istanbul Technical University , MSc: Boğaziçi University, PhD: Dokuz Eylül University
8	Sevcan Emek	Software Department Lecturer BSc - MSc: Dumlupınar University, PhD: Ege University
9	Tuğba Özacar Öztürk	head of department Head of Software Department Faculty Board Member BSc: Dokuz Eylül University, MSc - PhD: Ege University
10	Turan Göktüğ Altınoğ...	Hardware Department Research Assistant BSc - MSc: Fırat University

Languages Table

	Id [PK] integer	name character varying (50)	AddedAt date	isActive bit
1	1	Turkish	2022-12-15	1
2	2	English	2022-12-15	1
3	3	German	2022-12-15	1
4	4	Spanish	2022-12-15	1
5	5	French	2022-12-15	1
6	6	Italian	2022-12-15	1
7	7	Arabic	2022-12-15	1
8	8	Chinese	2022-12-15	1
9	9	Portuguese	2022-12-15	1
10	10	Korean	2022-12-15	1

PlaceHolders Table

	Id [PK] integer 	Code character varying (100) 	AddedAt date 	IsActive bit 
1	1	Sign in	2022-12-15	1
2	2	Research	2022-12-15	1
3	3	Help	2022-12-15	1
4	4	log out	2022-12-15	1
5	5	Payments	2022-12-15	1
6	6	Account Settings	2022-12-15	1
7	7	Teach on Udemy	2022-12-15	1
8	8	Udemy Business	2022-12-15	1
9	9	Learn Course	2022-12-15	1
10	10	About Udemy	2022-12-15	1

PlaceHoldersWord Table

Id [PK] integer 	LanguageId integer 	PlaceHoldersId integer 	Word character varying (250) 
1	1	1	Turkish
2	2	2	English
3	3	3	German
4	4	4	French
5	5	5	Spanish
6	6	6	Italian
7	7	7	Arabic
8	8	8	Chinese
9	9	9	Portuguese
10	10	10	Korean

Users Table

Id [PK] integer	FirstName character varying (50)	LastName character varying (50)	Email character varying (100)	PasswordHash character varying (250)	Promotionable bit
1	Uğurcan	Çırak	ugurcan@gmail.com	udemy123	1
2	Merthan	Erler	merthan@gmail.com	udemy456	1
3	Yaren	Mamuk	yaren@gmail.com	udemy789	1
4	Mehmet Can	Tekin	mcan@gmail.com	123udemy	1
5	Havva Beste	Tekçeli	bestee@gmail.com	456udemy	1
6	Furkan	Baysal	furkan@gmail.com	789udemy	1
7	İzzet	Akın	izzet@gmail.com	000udemy	1
8	Ekrem	Targıtay	Eco@gmail.com	udemy000	1
9	Emine	Aydın	Emine@gmail.com	udemy0001	1
10	Mustafa Hazar	Kelçe	mhk@gmail.com	1010udemy	1

10 MOST IMPORTANT QUERY FOR UDEMY DATABASE

1-) It sorts the price for the user. Examines the appropriate trainings according to the user's budget.

Input:

```
select "Title","Price" from "Courses" order by "Price" asc
```

Output:

	Title character varying (500) 🔒	Price numeric 🔒
1	Digital Marketing	20.00
2	Management	30.00
3	Economics	35.00
4	MobilApplication	40.00
5	Engineering	45.00
6	Web Design	45.00
7	Web Design	45.00
8	Travel	45.00
9	Hardware Design	50.00
10	Photography	100.00

2-) Indicates whether the user has the promotion. The user, who sees that there is a promotion, gets the opportunity to get more expensive trainings at a discount.

Input:

```
select "FirstName","LastName" from "Users" where "Promotionable" = '1'
```

Output:

	FirstName character varying (50) 🔒	LastName character varying (50) 🔒
1	Uğurcan	Çırak
2	Merthan	Erler
3	Yaren	Mamuk
4	Mehmet Can	Tekin
5	Havva Beste	Tekçeli
6	Furkan	Baysal
7	İzzet	Akın
8	Ekrem	Targıtay
9	Emine	Aydın
10	Mustafa Hazar	Kelçe

3-) Indicates whether the categories are active or not. The user acts knowing whether the training is active or not.

Input:

```
select "Id","Name","AddedAt","IsActive" from "Categories" where "IsActive" = '0'
```

Output:



	Id [PK] integer	Name character varying (50)	AddedAt date	IsActive bit
1	1	Software	2022-12-15	0
2	3	Business	2022-12-15	0
3	9	Music	2022-12-14	0

4-) The user sees which instructor taught which course.

Input:

```
select "UserId", "CourseId" from "CourseInstructors"
```

Output:


	UserId integer 	Courseld integer 
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10

5-) It shows the available parts on the interface to the user.

Input:

```
select "Code" from "PlaceHolders"
```

Output:

	Code character varying (100) 
1	Sign in
2	Research
3	Help
4	log out
5	Payments
6	Account Settings
7	Teach on Udemy
8	Udemy Business
9	Learn Course
10	About Udemy

6-) It shows the language in which the user uses the platform and the Turkish equivalents of the words found here. Here we have briefly indicated which language it will correspond to.

Input:

```
select "LanguageId","Word" from "PlaceHoldersWord"
```

Output:


	LanguageId integer	Word character varying (250)
1	1	Turkish
2	2	English
3	3	German
4	4	French
5	5	Spanish
6	6	Italian
7	7	Arabic
8	8	Chinese
9	9	Portuguese
10	10	Korean

7-) When the user makes a price filter, it shows the trainings in accordance with the criteria specified. We took the average price as filtering on the application.

Input:

```
select "Subtitle","Price" from "Courses" where "Price" > (select avg("Price") from "Courses")
```

Output:


	Subtitle character varying (500) 	Price numeric 
1	VHDL	50.00
2	Mobile Photography	100.00

8-) The user wants to reach the languages that start with the letter 'T' and the active ones from these languages.

Input:

```
select "name" from "Languages" where name like 'T%'
intersect
select "name" from "Languages" where "isActive" = '1'
```

Output:

	name character varying (50) 
1	Turkish

9-) The user can sort the instructors registered to the platform alphabetically.

Input:

```
select "UserId","SubInfo" from "Instructors" order by "SubInfo" desc
```

Output:

	UserId [PK] integer	SubInfo character varying (100)
1	5	Zeynep Çipiloğlu
2	10	Turan Göktüğ Altındoğ...
3	9	Tuğba Özacar Öztürk
4	8	Sevcan Emek
5	4	Övünç Öztürk
6	3	Muhammet Gökhan Ci...
7	7	Hakan Murat Karaca
8	1	Didem Abidin
9	2	Bora Canbula
10	6	Birim Balcı

10-) The user wanted to list the most current courses.

Input:

```
select "Title","UpdateAt" from "Courses" order by "UpdateAt" asc
```

Output:

	Title character varying (500) 🔒	UpdateAt date 🔒
1	MobilApplication	2022-12-22
2	Hardware Design	2022-12-22
3	Management	2022-12-22
4	Economics	2022-12-22
5	Digital Marketing	2022-12-22
6	Web Design	2022-12-22
7	Web Design	2022-12-22
8	Travel	2022-12-22
9	Photography	2022-12-22
10	Engineering	2022-12-22

Note: While showing the most important queries, we took care to show the queries we learned in the lab.