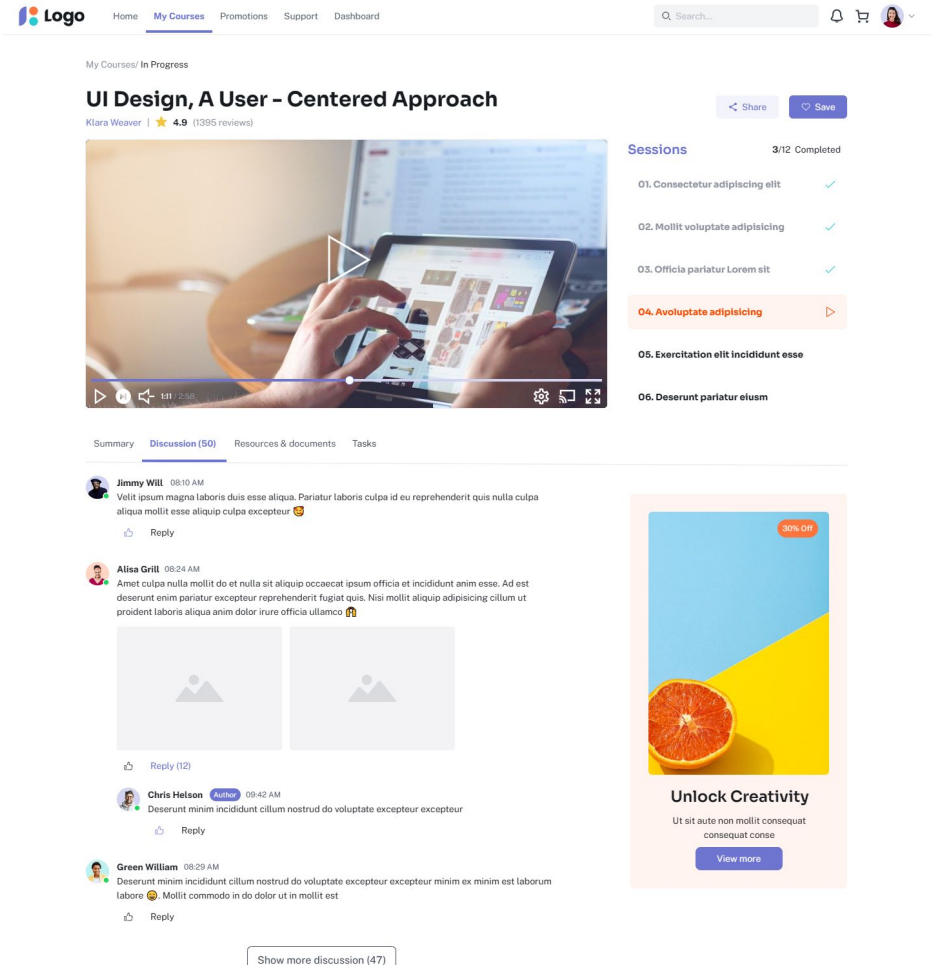
Classroom App Design

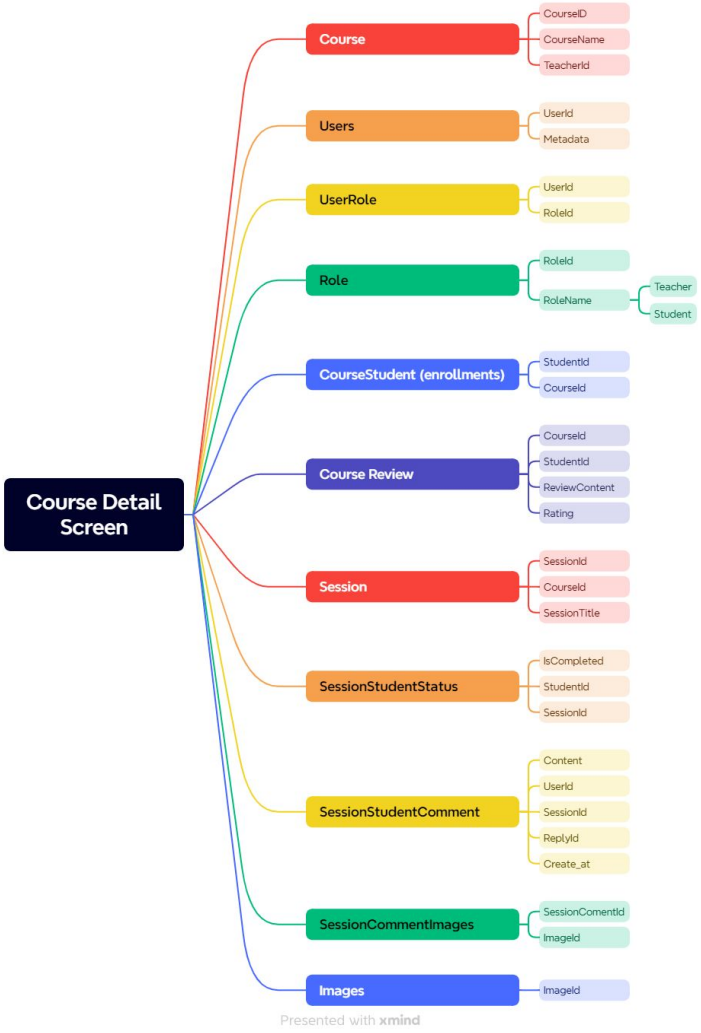
Write Query for Course Detail Screen

Agenda

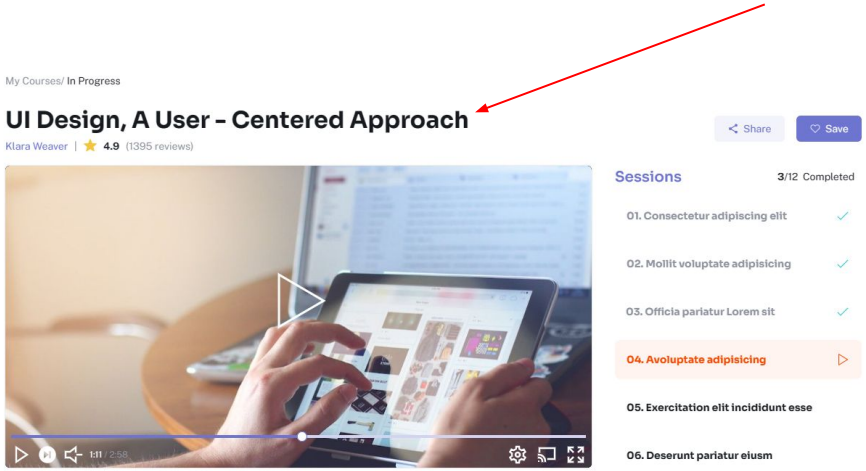
1. Database Design related to Course Detail Screen.
2. Sample Data.
3. Query Course Detail Screen.

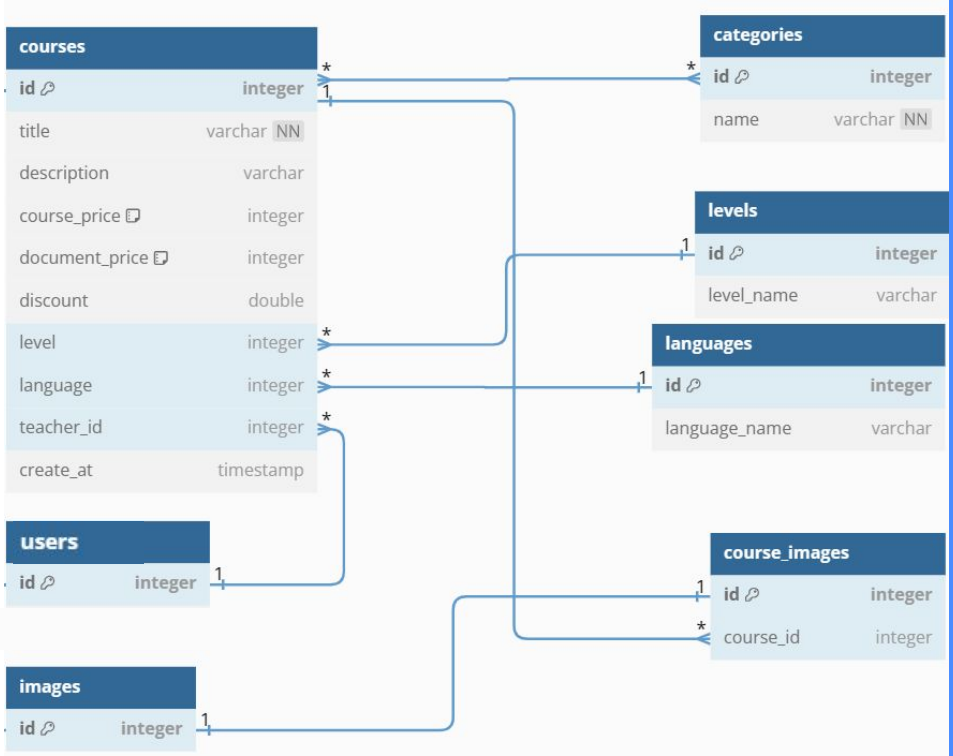
1. DataBase Design



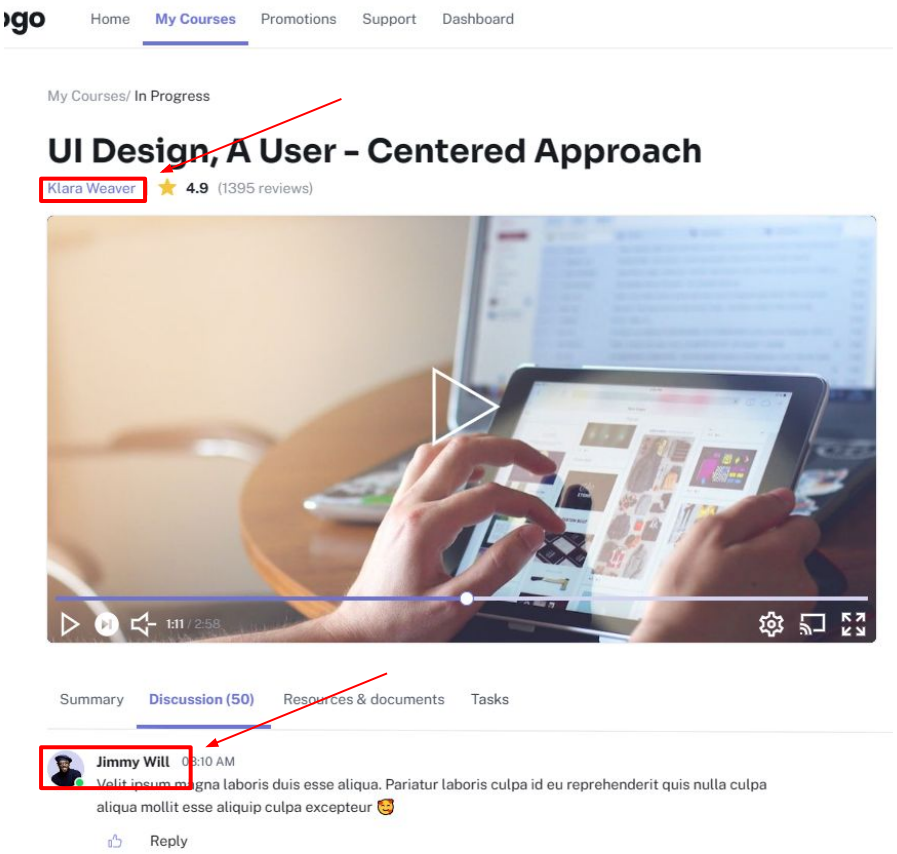


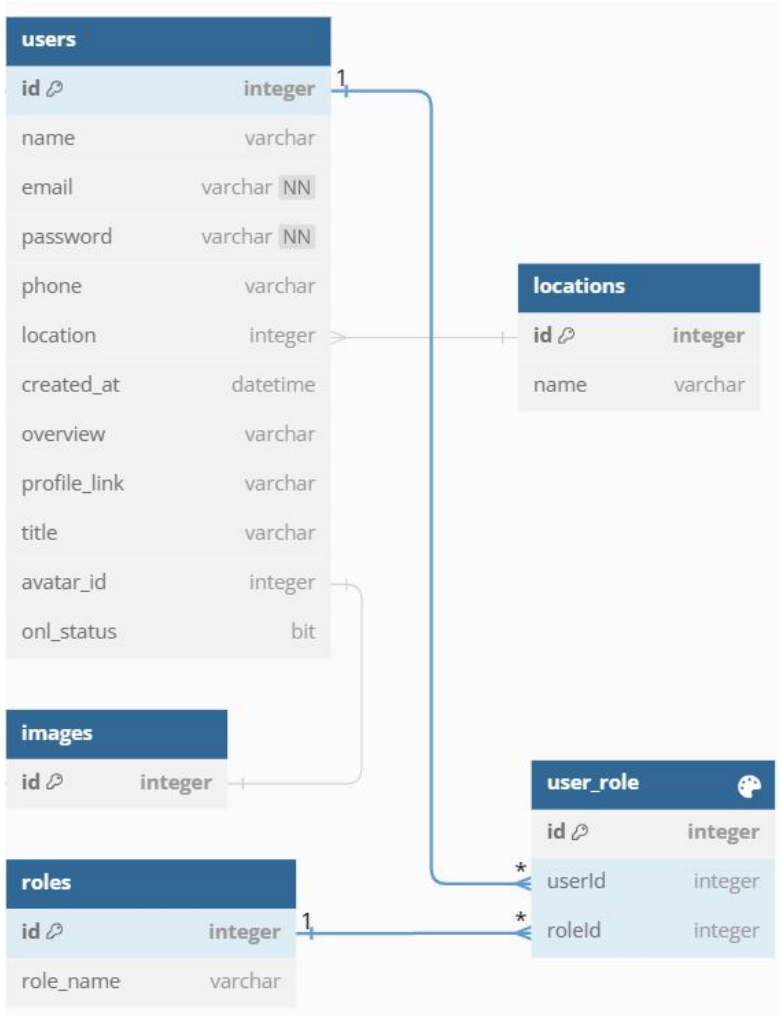
1.1 Courses


My Courses/ In Progress
UI Design, A User - Centered Approach
Klara Weaver | 4.9 (1395 reviews)
Share
Save
Sessions
3/12 Completed
01. Consectetur adipiscing elit
02. Mollit voluptate adipisicing
03. Officia pariatur Lorem sit
04. Avoluptate adipisicing
05. Exercitation elit incididunt esse
06. Deserunt pariatur eiusm

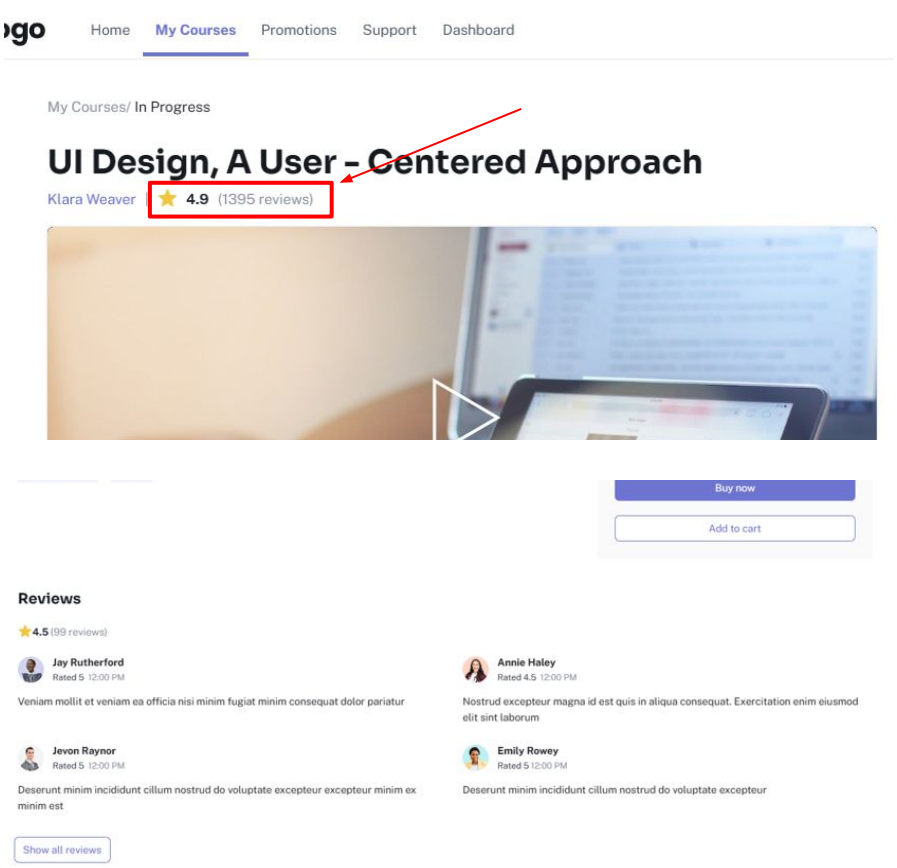

courses
id integer
title varchar NN
description varchar
course_price integer
document_price integer
discount double
level integer
language integer
teacher_id integer
create_at timestamp
categories
id integer
name varchar NN
levels
id integer
level_name varchar
languages
id integer
language_name varchar
users
id integer
course_images
id integer
course_id integer
images
id integer

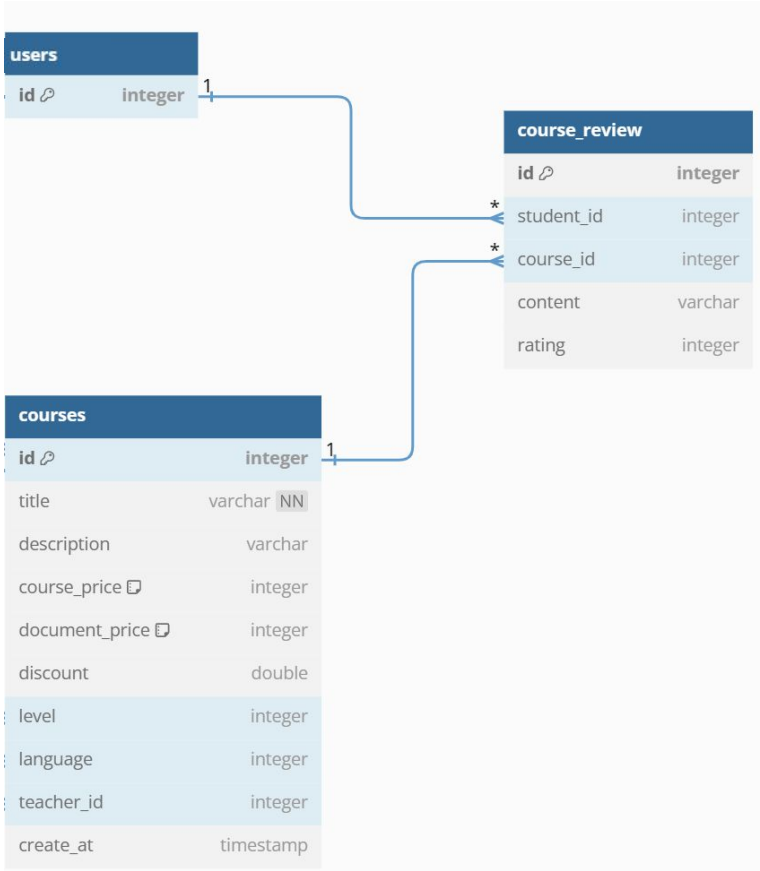
1.2 Users - Roles



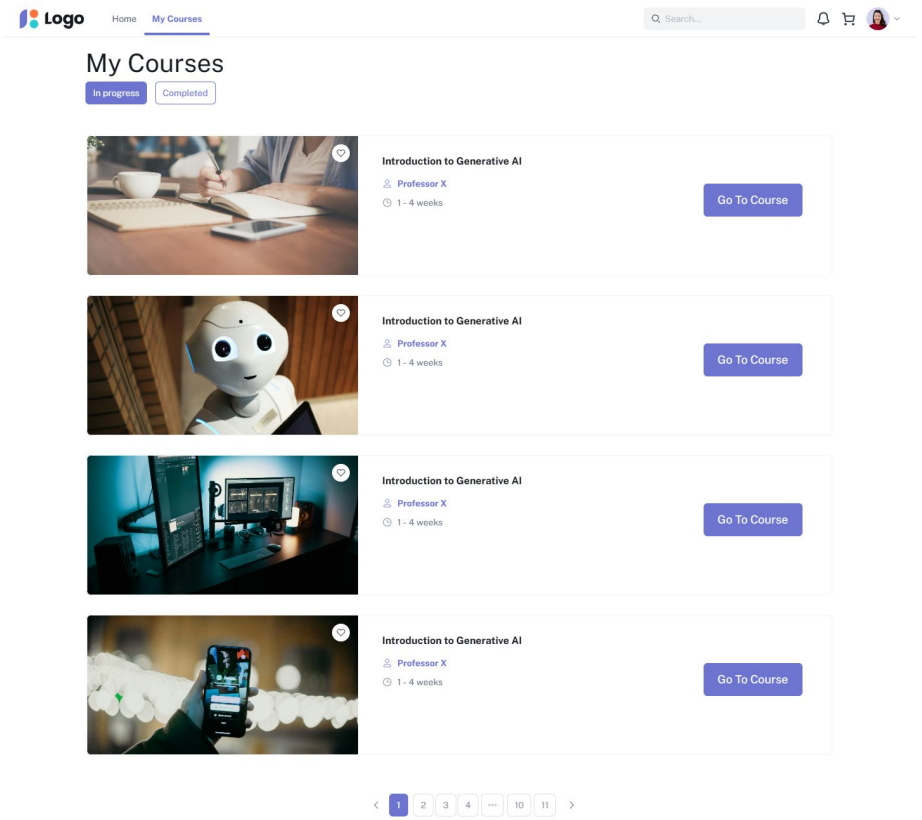


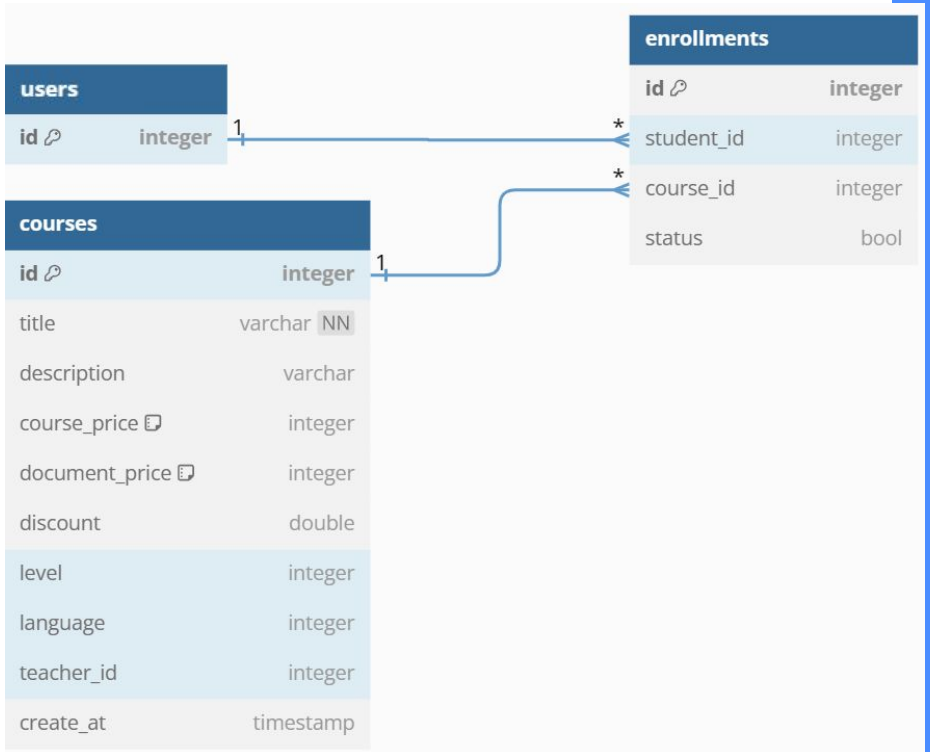
1.3 Course reviews



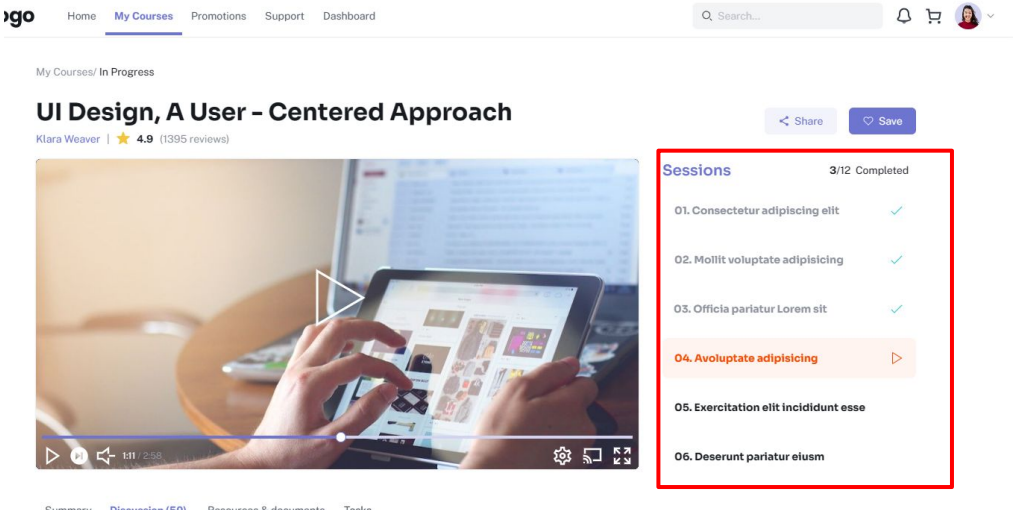


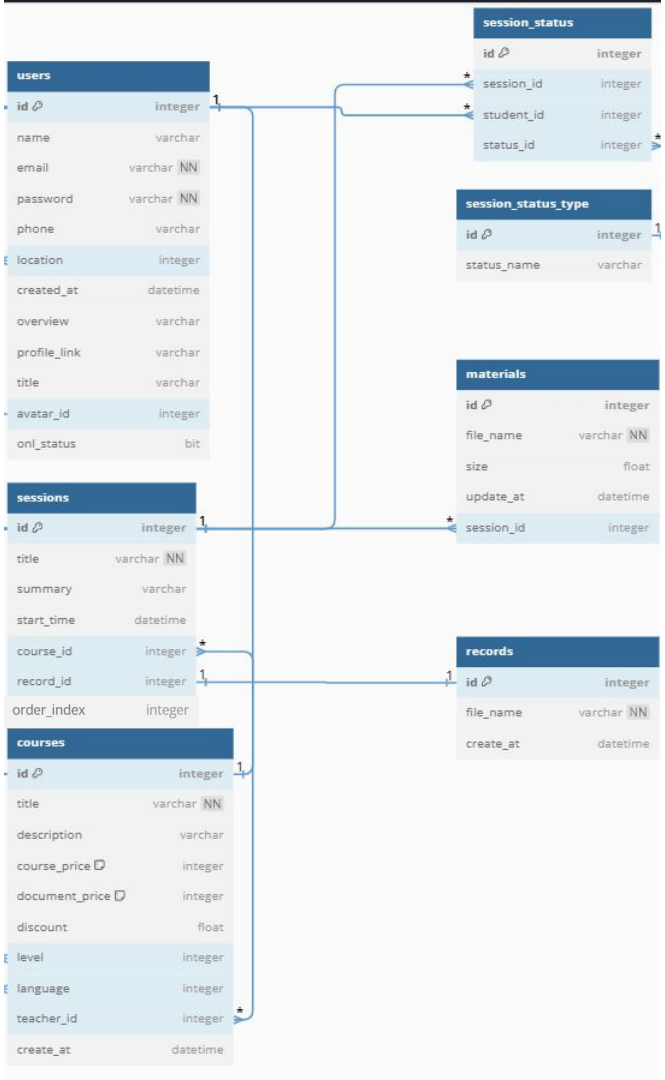
1.4 Student’s enrollment



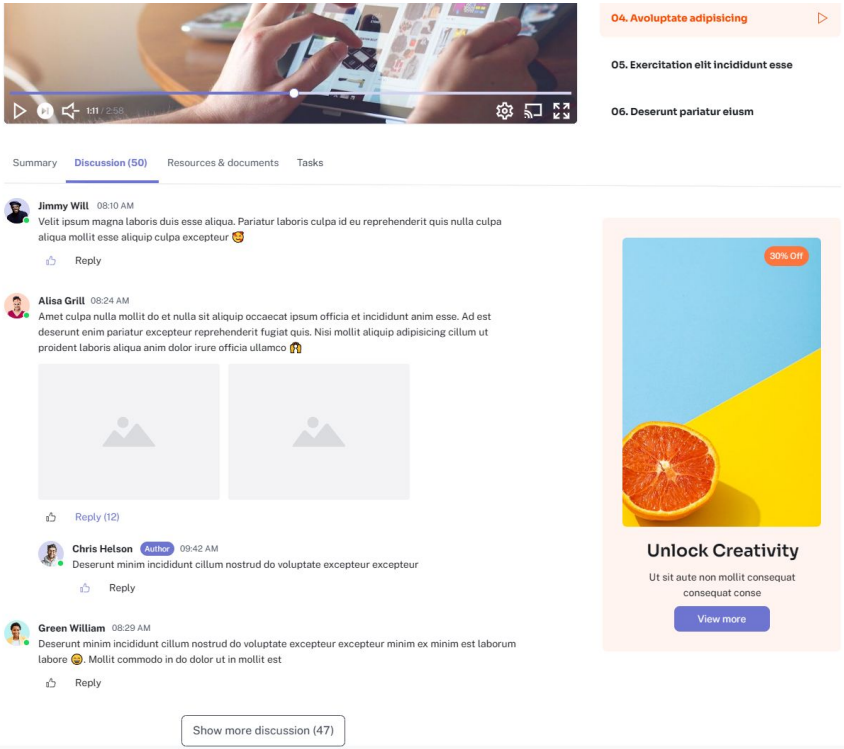


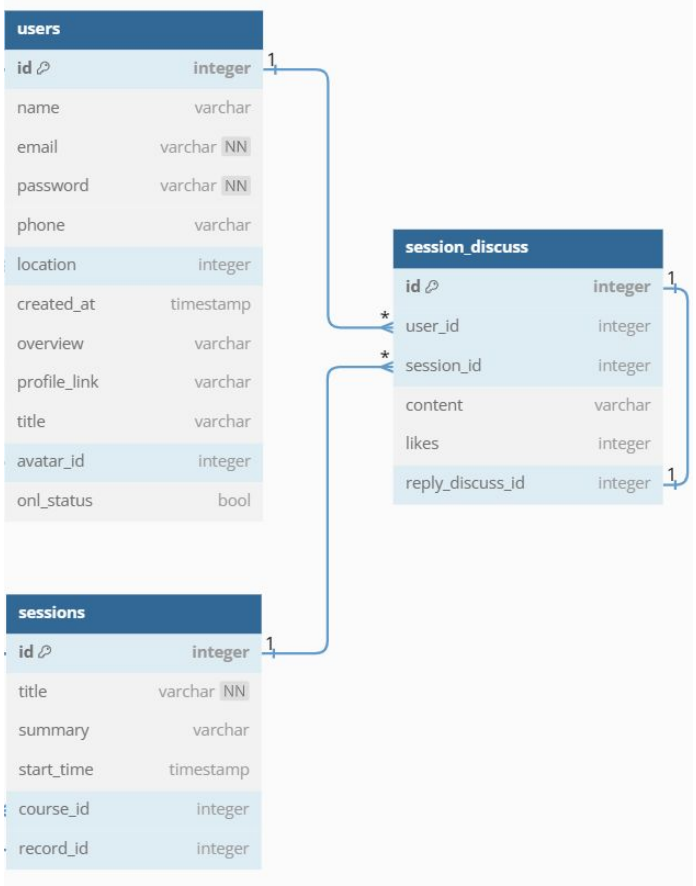
1.5 Sessions


Home
My Courses
Promotions
Support
Dashboard
Search...
My Courses/ In Progress
UI Design, A User - Centered Approach
Klara Weaver | 4.9 (1395 reviews)
Share
Save
Sessions
3/12 Completed
01. Consectetur adipiscing elit
02. Mollit voluptate adipisicing
03. Officia pariatur Lorem sit
04. Avoluptate adipisicing
05. Exercitation elit incididunt esse
06. Deserunt pariatur eiusm

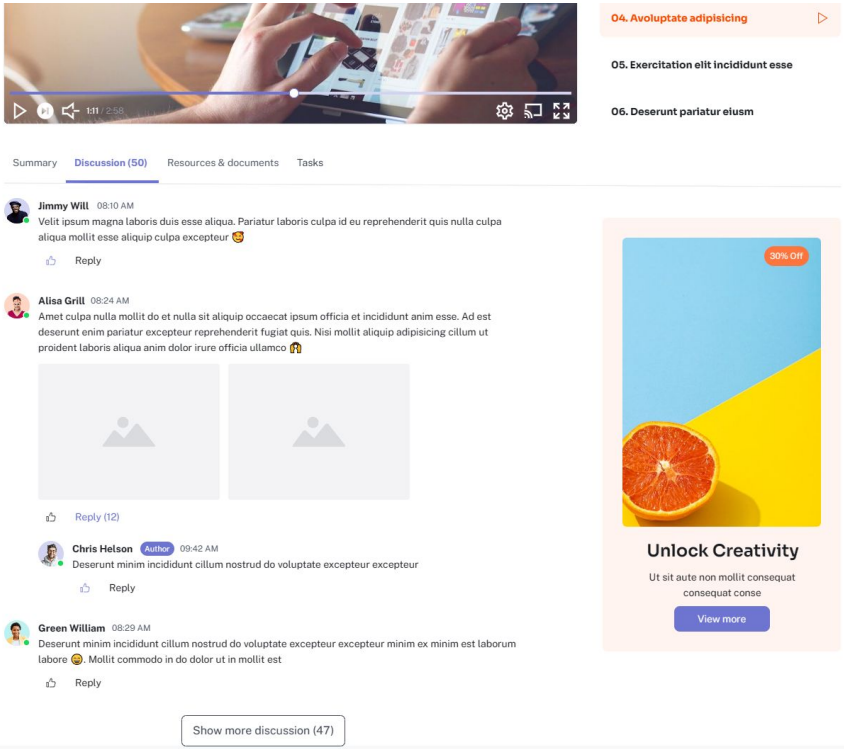

users
id integer
name varchar
email varchar NN
password varchar NN
phone varchar
location integer
created_at datetime
overview varchar
profile_link varchar
title varchar
avatar_id integer
onl_status bit
session_status
id integer
session_id integer
student_id integer
status_id integer
session_status_type
id integer
status_name varchar
materials
id integer
file_name varchar NN
size float
update_at datetime
session_id integer
sessions
id integer
title varchar NN
summary varchar
start_time datetime
course_id integer
record_id integer
order_index integer
records
id integer
file_name varchar NN
create_at datetime
courses
id integer
title varchar NN
description varchar
course_price integer
document_price integer
discount float
level integer
language integer
teacher_id integer
create_at datetime

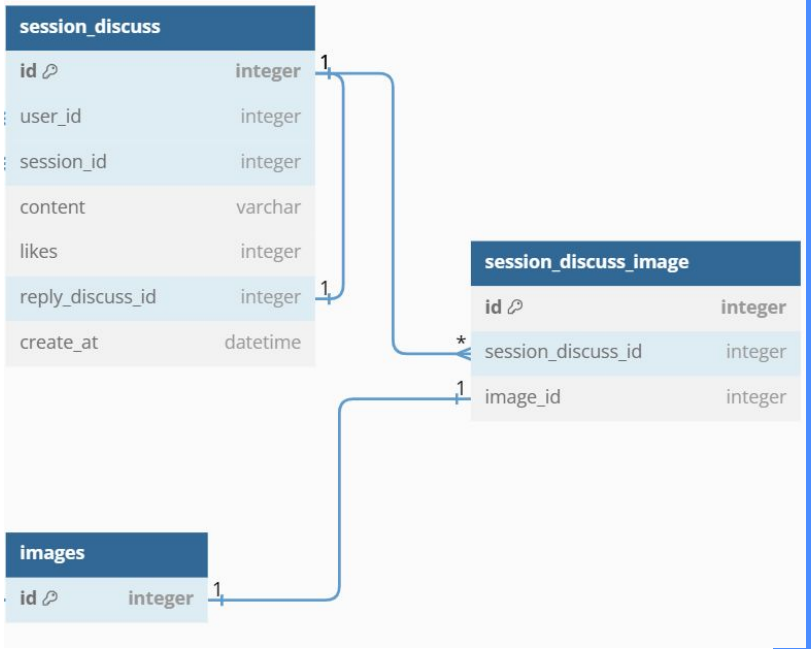
1.6 Session discussion





1.6 Session discussion - images





2. Sample data

id	name	email
1	Sarah Jones	sarah.jones@de...
2	Omar Hassan	omar.hassan@...
3	Maria Garcia	maria.garcia@t...
4	Chen Lin	chen.lin@datas...
5	John Smith	john.smith@ex...
6	Emma Johnson	emma.johnson...

Users

id	user...	roleId
1	1	1
2	2	1
3	3	2
4	4	2
5	5	2
6	6	2

User_Role

id	role_name
1	Teacher
2	Student

Roles

id	student_id	course_id
1	3	1
2	4	2
3	5	1
4	6	1

Enrollments

id	title	description	course_price	document_price	discount	level	language	teacher_id
1	Web Development 101	Introduction to ...	50	10	0.2	1	1	1
2	Data Science Fundamentals	Introduction to ...	75	15	0.1	2	1	2

Course

id	student_id	course_id	content	rating
1	3	1	Great course highly recommended!	5
2	6	1	Eyes opening course!	4
3	4	2	The content was informative but could be more engaging.	3

Course_Review

2. Sample data

id	title	summary	start_time	course_id	record_id	order_index
1	Introduction to HTML	Learn the basic...	2022-01-10 09:0...	1	1	1
2	CSS Styling Techniques	Explore differen...	2022-01-12 09:0...	1	2	2
3	JavaScript Fundamentals	JavaScript Fund...	2022-01-14 09:0...	1	3	3
4	Introduction to Python	Get started with...	2022-01-11 09:0...	2	4	1
5	Data Analysis with Pandas	Learn how to a...	2022-01-13 09:0...	2	5	2
6	Machine Learning Algorithms	Machine Learni...	2022-01-15 09:0...	2	6	3

Sessions

id	status_name
1	Completed
2	Inprogress
3	NotStart

session_status_type

id	user_id	session_id	content	likes	reply_discuss_id	create_at
1	3	1	How can I learn Web Development effectively?	10	*NULL*	2022-01-05 09:00:00.000
2	1	1	You need to study the basics and practice regularly.	5	1	2022-01-05 10:00:00.000

session_discuss

id	session_id	student_id	status_id	create_at	update_at
1	1	3	1	2022-01-05 09:00:00.000	2022-01-05 10:00:00.000
2	2	3	2	2022-01-05 11:00:00.000	2022-01-05 12:00:00.000
3	3	3	3	2022-01-05 09:30:00.000	2022-01-05 09:30:00.000
4	4	4	1	2022-01-05 09:30:00.000	2022-01-05 09:30:00.000
5	5	4	1	2022-01-05 10:00:00.000	2022-01-05 10:00:00.000
6	6	4	3	2022-01-05 11:00:00.000	2022-01-05 11:00:00.000
7	1	5	1	2022-02-05 09:00:00.000	2022-02-05 09:00:00.000
8	2	5	1	2022-03-05 09:30:00.000	2022-03-05 09:30:00.000
9	3	5	1	2022-04-05 09:00:00.000	2022-04-05 09:00:00.000
10	1	6	3	2022-05-05 09:00:00.000	2022-05-05 09:00:00.000

session_status

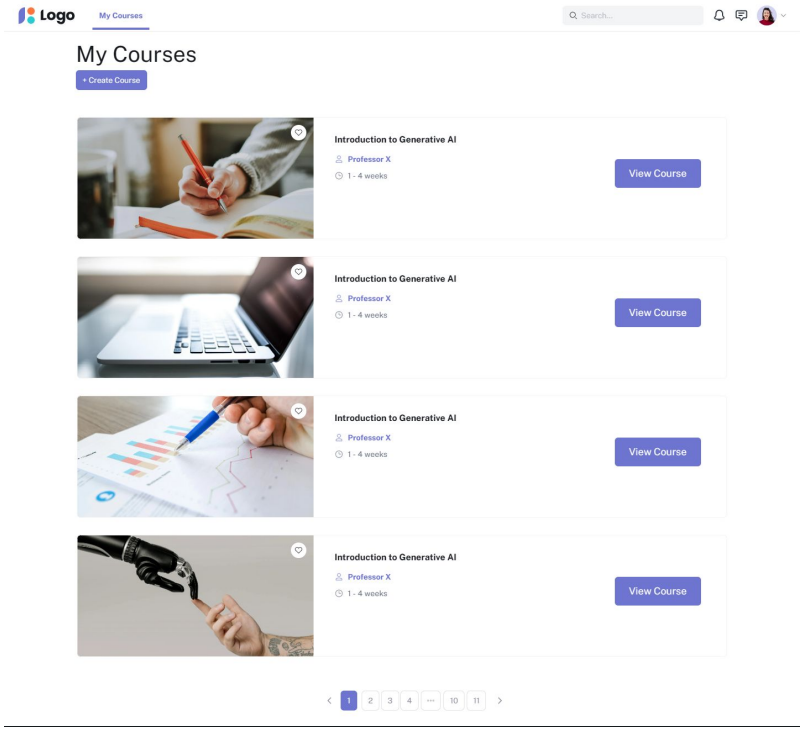
id	session_discuss_id	image_id
1	1	1
2	1	2
3	2	3

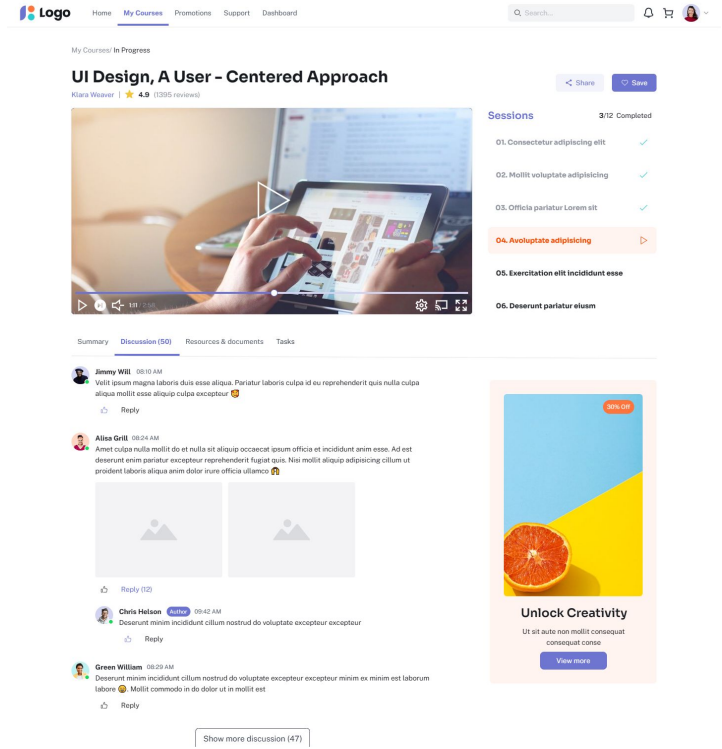
session_discuss_image

id	image_path
1	pic1.png
2	pic2.png
3	pic3.png

images

3. Query Course Detail Screen.



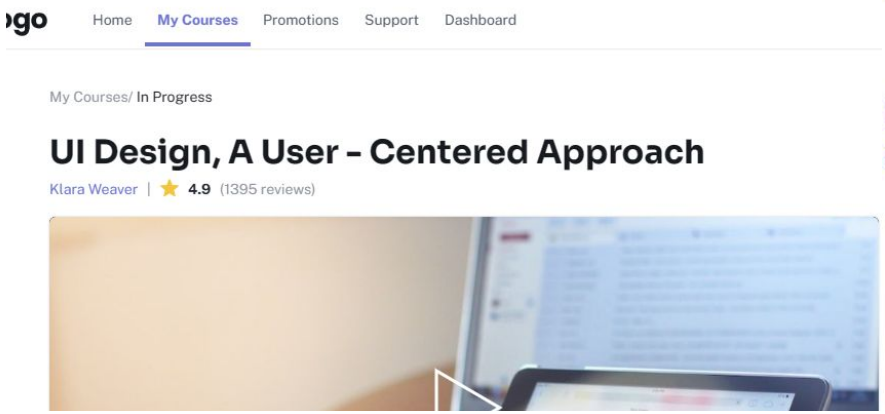


My Course Screen of Student (**UserId = 3**)

Student **(UserId = 3)** open **Course Detail Screen** of course (**CourseId = 1**)

3.1 Query Course_name, teacher_name, course_review.

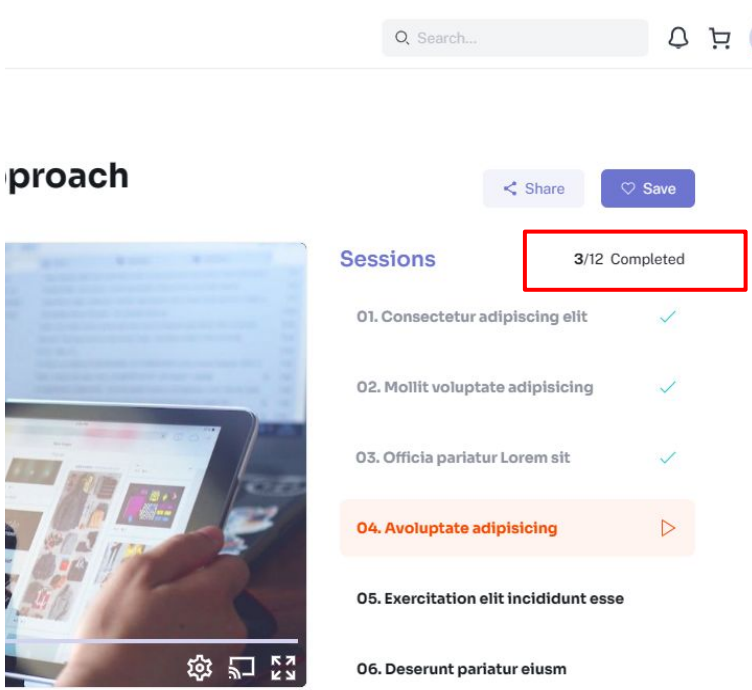
```
Select  c.title, u.name as teacher_name,
        AVG(Cast(cr.rating as Float)) as Avg_rating,
        COUNT(*) as Num_reviews
From    courses c
        join users u on c.teacher_id = u.id
        join course_review cr on c.id = cr.course_id
Where   c.id = 1
Group by c.title, u.name;
```



Results | Messages

	title	teacher_name	Avg_rating	Num_reviews
1	Web Development 101	Sarah Jones	4.5	2

3.2 Total sessions, total completed sessions.



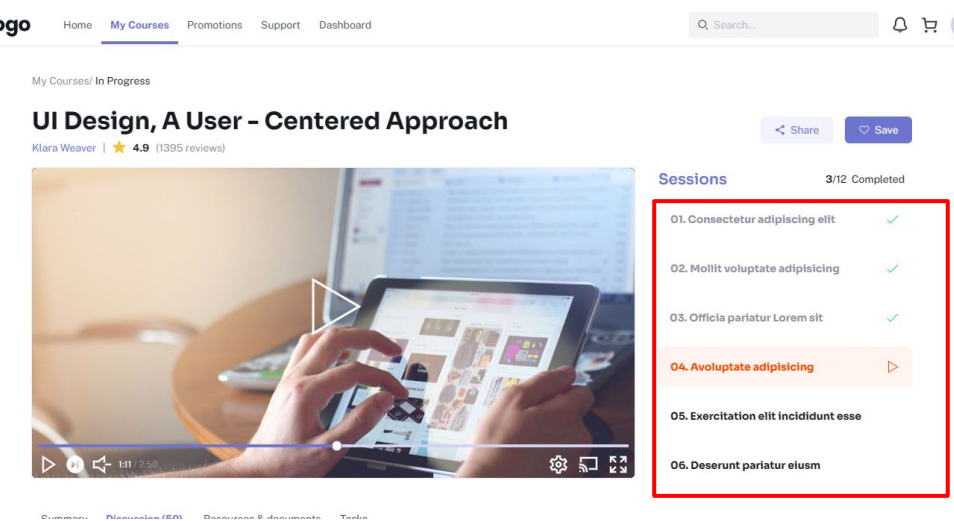

```sql
Select  Count(*) as Total_sessions
From    sessions ss join courses c on ss.course_id = c.id
where   c.id = 1;

Select  Count(*) as Completed_num
From    sessions ss join courses c on ss.course_id = c.id
        join session_status sst on ss.id = sst.session_id
where   c.id = 1 and sst.student_id = 3 and sst.status_id = 1;
```

	Total_sessions
1	3

	Completed_num
1	1

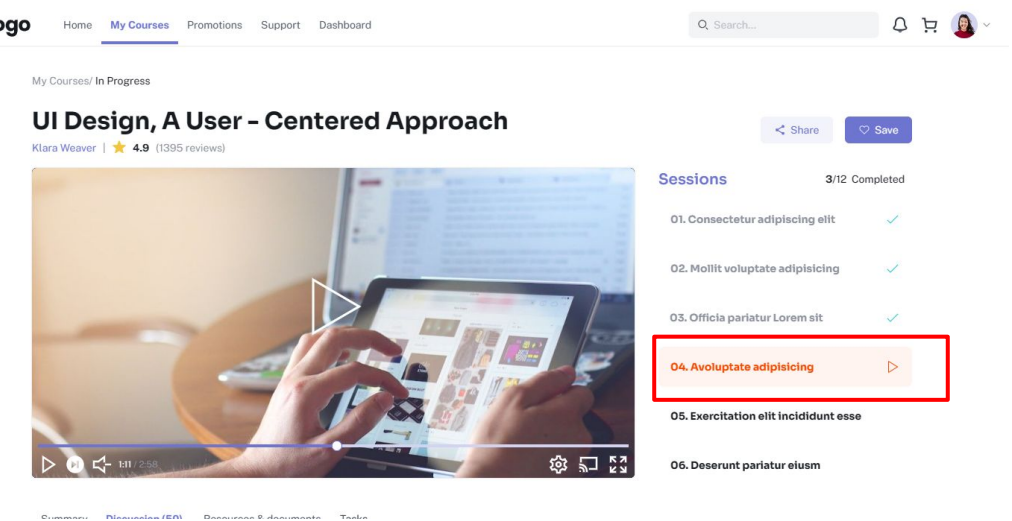
3.3 Sessions and session's status.




```sql
Select  ss.order_index as order_id,
        ss.title as session_title,
        sstype.status_name as status,
        sst.update_at as last_modify
From    session_status sst
        join sessions ss on sst.session_id = ss.id
        join session_status_type sstype on sst.status_id = sstype.id
where   ss.course_id = 1 and sst.student_id = 3;
```

	order_id	session_title	status	last_modify
1	1	Introduction to HTML	Completed	2022-01-05 10:00:00.000
2	2	CSS Styling Techniques	Inprogress	2022-01-05 12:00:00.000
3	3	JavaScript Fundamentals	NotStart	2022-01-05 09:30:00.000

3.4 Current session.




```
Select  Top 1
        ss.order_index as order_id,
        ss.title as session_title,
        sstype.status_name as status,
        sst.update_at as last_modify
From    session_status sst
        join sessions ss on sst.session_id = ss.id
        join session_status_type sstype on sst.status_id = sstype.id
where   ss.course_id = 1 and sst.student_id = 3
Order By sst.update_at DESC;
```

	order_id	session_title	status	last_modify
1	2	CSS Styling Techniques	Inprogress	2022-01-05 12:00:00.000

3.5 Total of discussion, discussion list.

Scenario: Student (**student_id = 3**) click to view detail of session (**session_id = 1**) of course (**course_id = 1**).

04. Avoluptate adipisicing

05. Exercitation elit incididunt esse

06. Deserunt pariatur eiusm

Summary | Discussion (50) | Resources & documents | Tasks

Jimmy Will 08:10 AM
Velit ipsum magna laboris duis esse aliqua. Pariatur laboris culpa id eu reprehenderit quis nulla culpa aliqua mollit esse aliquip culpa excepteur 😍
Reply

Alisa Grill 08:24 AM
Amet culpa nulla mollit do et nulla sit aliquip occaecat ipsum officia et incididunt anim esse. Ad est deserunt enim pariatur excepteur reprehenderit fugiat quis. Nisi mollit aliquip adipisicing cillum ut proident laboris aliqua anim dolor irure officia ullamco 🤗

Reply (12)

Chris Helson Author 09:42 AM
Deserunt minim incididunt cillum nostrud do voluptate excepteur excepteur
Reply

Green William 08:29 AM
Deserunt minim incididunt cillum nostrud do voluptate excepteur excepteur minim ex minim est laborum labore 😞. Mollit commodo in do dolor ut in mollit est
Reply

Show more discussion (47)

Unlock Creativity

Ut sit aute non mollit consequat consequat conse

View more

```
Select  Count(*) as Total_discussion
From    session_discuss ssd
Where   ssd.session_id = 1;

Select  u.name, ssd.content, ssd.likes, ssd.reply_discuss_id
From    session_discuss ssd  join users u on ssd.user_id = u.id
Where   ssd.session_id = 1;
```

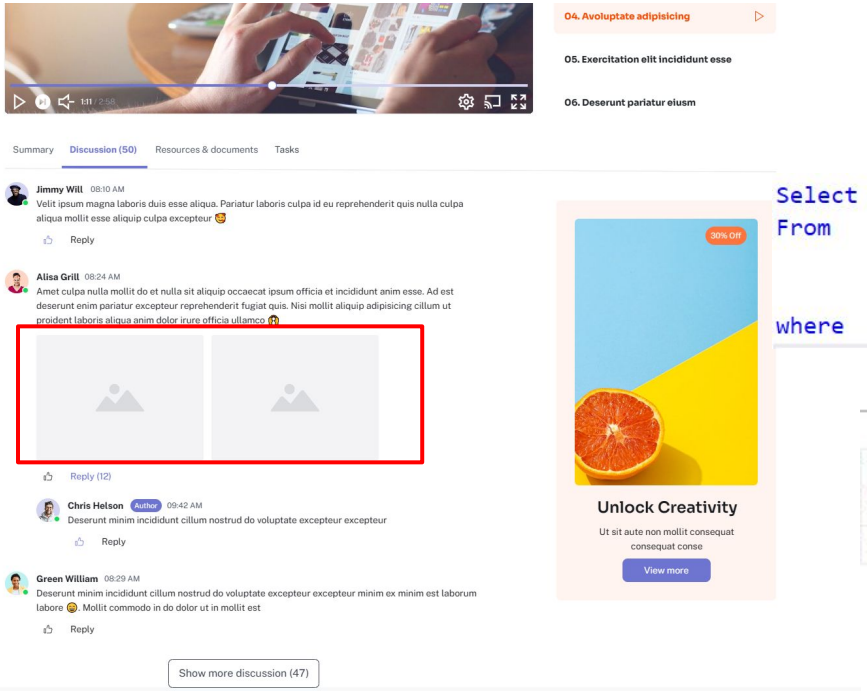
Results | Messages

	Total_discussion
1	2

	name	content	likes	reply_discuss_id
1	Maria Garcia	How can I learn Web Development effectively?	10	NULL
2	Sarah Jones	You need to study the basics and practice regularly.	5	1

3.6 Attached images

Scenario: Student (**student_id = 3**) click to view discussion of session (**session_id = 1**) of course (**course_id = 1**).




```sql
Select  ssd.id as discuss_id, img.image_path as img_path
From    session_discuss ssd
        join session_discuss_image ssdi on ssd.id = ssdi.session_discuss_id
        join images img on ssdi.image_id = img.id
where   ssd.session_id = 1;
```

	discuss_id	img_path
1	1	pic1.png
2	1	pic2.png
3	2	pic3.png