



final exam

EXAM RULE:

- CLASSROOM DOCUMENTS INCLUDING SLIDES ARE ALLOWED
- NO CHAT, TALK OR LOOK TO OTHER STUDENTS. IF SEEN YOU WILL BE FAILED AUTOMATICALLY
- ONLY THE FIRST SUBMISSION WILL BE ACCEPTED IN THE CASE OF MISTAKES
- REMOVE **Vendors** folder before zip
- EXPORT DATABASE, PUT WITH PROJECT
- BEFORE SUBMITTING, RENAME YOUR FOLDER: **FIRST-LASTNAME.ZIP**

PART	SCORE
PART1 - Theory	15
PART 2 - Create Migrations, models, controllers	10
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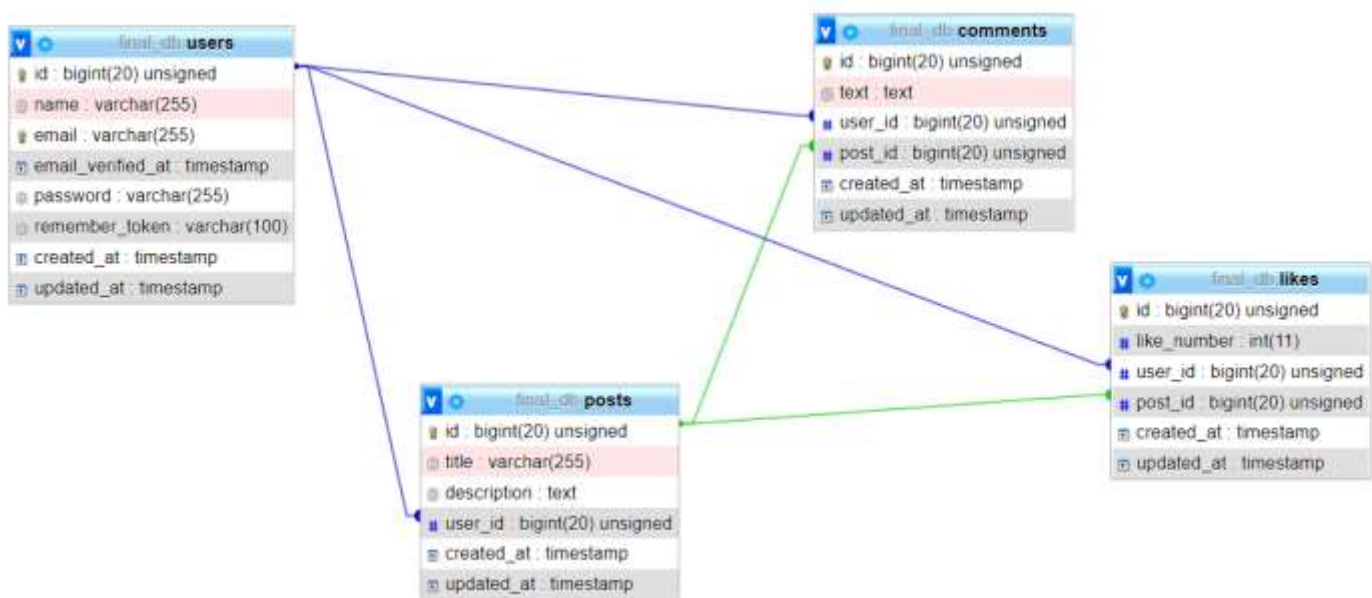
PART 1 – Theory

Google Form: <https://forms.gle/ttr9sYWBaH51KWV19>

PART 2 – Create Migrations, models, controllers

We want to manage **users**, **posts**, **comments** and **likes** following the below ERD.

Create the related migrations, models and controllers on your LARAVEL project and the related database on MySQL.



PART 3 – Create the BASIC API

Update your project to provide the following API to **manage users, post, and comments**

USERS

HTTP Method	Route	Definition
GET	/users	Get all users
POST	/users	Create new user

POSTS

HTTP Method	Route	Definition
GET	/posts	Get all posts
POST	/posts	Create new post

COMMENTS

HTTP Method	Route	Definition
GET	/comments	Get all comments
POST	/comments	Create new comment

LIKES

HTTP Method	Route	Definition
GET	/likes	Get all likes
POST	/likes	Create new like

PART 4 – Populate your database

By using this API, create the following element:

USERS

id	Name	Email	password
1	Ronan	ronan@gmail.com	123
2	Rady	rady@gmail.com	234
3	Him	him@gmail.com	234

POSTS

id	user_id	title	description
1	2	Footballer	Ronan is the best defender
2	1	PNC Premier League	Rady is the best striker at PNC league
3	3	Motor	Him is best rider in PNC

COMMENTS

id	post_id	user_id	text
1	1	2	Yeah, great news!
2	2	2	I want to play with you
3	3	1	Well! Done!
4	1	3	I never play with him

LIKES

id	post_id	user_id	like_number
1	1	2	1
2	2	3	1
3	3	1	1
4	1	3	1

PART 5 – Create the ADVANCED API

Update your API to manage the following advanced requests:

Q1 Users with their post and comments (10 pts.)

HTTP Method	Route	Definition
GET	/users_posts_comments	Get for each users their posts and their comments

Example

Request: **http://127.0.0.1:8000/api/users_post_comments**

Results:

Status: 200 OK Size: 726 Bytes Time: 225 ms

Response Headers ⁹ Cookies Results Docs [New](#)

```
1  [
2  {
3    "id": 1,
4    "name": "Ronan",
5    "email": "ronan@gmail.com",
6    "posts": [
7      {
8        "id": 2,
9        "title": "PNC Premier League",
10       "description": "Rady is the best striker at PNC league",
11       "user_id": 1,
12       "comments": [
13         {
14           "id": 2,
15           "text": "I want to play with you",
16           "user_id": 2,
17           "post_id": 2
18         }
19       ]
20     }
21   ]
22 },
23 {
24   "id": 2,
25   "name": "Rady",
26   "email": "rady@gmail.com",
27   "posts": [
28     {
29       "id": 1,
30       "title": "Footballer",
31       "description": "Ronan is the best defender",
32       "user_id": 2,
33       "comments": [
34         {
35           "id": 1,
36           "text": "Yeah, great news!",
37           "user_id": 2,
38           "post_id": 1
39         },
40         {
41           "id": 4,
42           "text": "I never play with him",
43           "user_id": 3,
44           "post_id": 1
45         }
46       ]
47     }
48   ]
49 }
```

Q2 Users with their post, comments and likes (15 pts.)

HTTP Method	Route	Definition
GET	/users_posts_comments_likes	Get for each users their posts and their comments and likes

Example

Request: http://127.0.0.1:8000/api/users_posts_comments_likes

Results:

Status: 200 OK Size: 952 Bytes Time: 183 ms

Response	Headers ⁹	Cookies	Results	Docs ^{New}
1			<pre>[{ "id": 1, "name": "Ronan", "email": "ronan@gmail.com", "posts": [{ "id": 2, "title": "PNC Premier League", "description": "Rady is the best striker at PNC league", "user_id": 1, "comments": [{ "id": 2, "text": "I want to play with you", "user_id": 2, "post_id": 2 }], "likes": [{ "id": 2, "like_number": 1, "user_id": 3, "post_id": 2 }] }] }, { "id": 2, "name": "Rady", "email": "rady@gmail.com", "posts": [{ "id": 1, "title": "Footballer", "description": "Ronan is the best defender", "user_id": 2, "comments": [{ "id": 1, "text": "Yeah, great news!", "user_id": 2, "post_id": 1 }] }] }]</pre>	

Q3 Single User with their post, comments and likes (10 pts.)

HTTP Method	Route	Definition
GET	/users_posts_comments_likes/{id}	Get single user with their posts and their comments and likes

Example

Request: http://127.0.0.1:8000/api/users_posts_comments_likes/2

Results:

Status: 200 OK Size: 387 Bytes Time: 181 ms

Response Headers⁹ Cookies Results Docs [New](#)

```

1  {
2    "id": 2,
3    "name": "Rady",
4    "email": "rady@gmail.com",
5    "posts": [
6      {
7        "id": 1,
8        "title": "Footballer",
9        "description": "Ronan is the best defender",
10       "user_id": 2,
11       "comments": [
12         {
13           "id": 1,
14           "text": "Yeah, great news!",
15           "user_id": 2,
16           "post_id": 1
17         },
18         {
19           "id": 4,
20           "text": "I never play with him",
21           "user_id": 3,
22           "post_id": 1
23         }
24       ],
25       "likes": [
26         {
27           "id": 1,
28           "like_number": 1,
29           "user_id": 2,
30           "post_id": 1
31         },
32         {
33           "id": 4,
34           "like_number": 1,
35           "user_id": 3,
36           "post_id": 1
37         }
38       ]
39     }
40   ]
41 }
```

Q4 Count posts and comments of each users (13 pts.)

HTTP Method	Route	Definition
GET	/count_posts_comments	Count posts and comments of each users

Example

Request: **http://127.0.0.1:8000/api/count_posts_comments**

Results:

Status: 200 OK Size: 250 Bytes Time: 180 ms

Response Headers ⁹ Cookies Results Docs ^{New}

```
1  [
2    {
3      "id": 1,
4      "name": "Ronan",
5      "email": "ronan@gmail.com",
6      "posts_count": 1,
7      "comments_count": 1
8    },
9    {
10     "id": 2,
11     "name": "Rady",
12     "email": "rady@gmail.com",
13     "posts_count": 1,
14     "comments_count": 2
15   },
16   {
17     "id": 3,
18     "name": "Him",
19     "email": "him@gmail.com",
20     "posts_count": 1,
21     "comments_count": 1
22   }
23 ]
```