



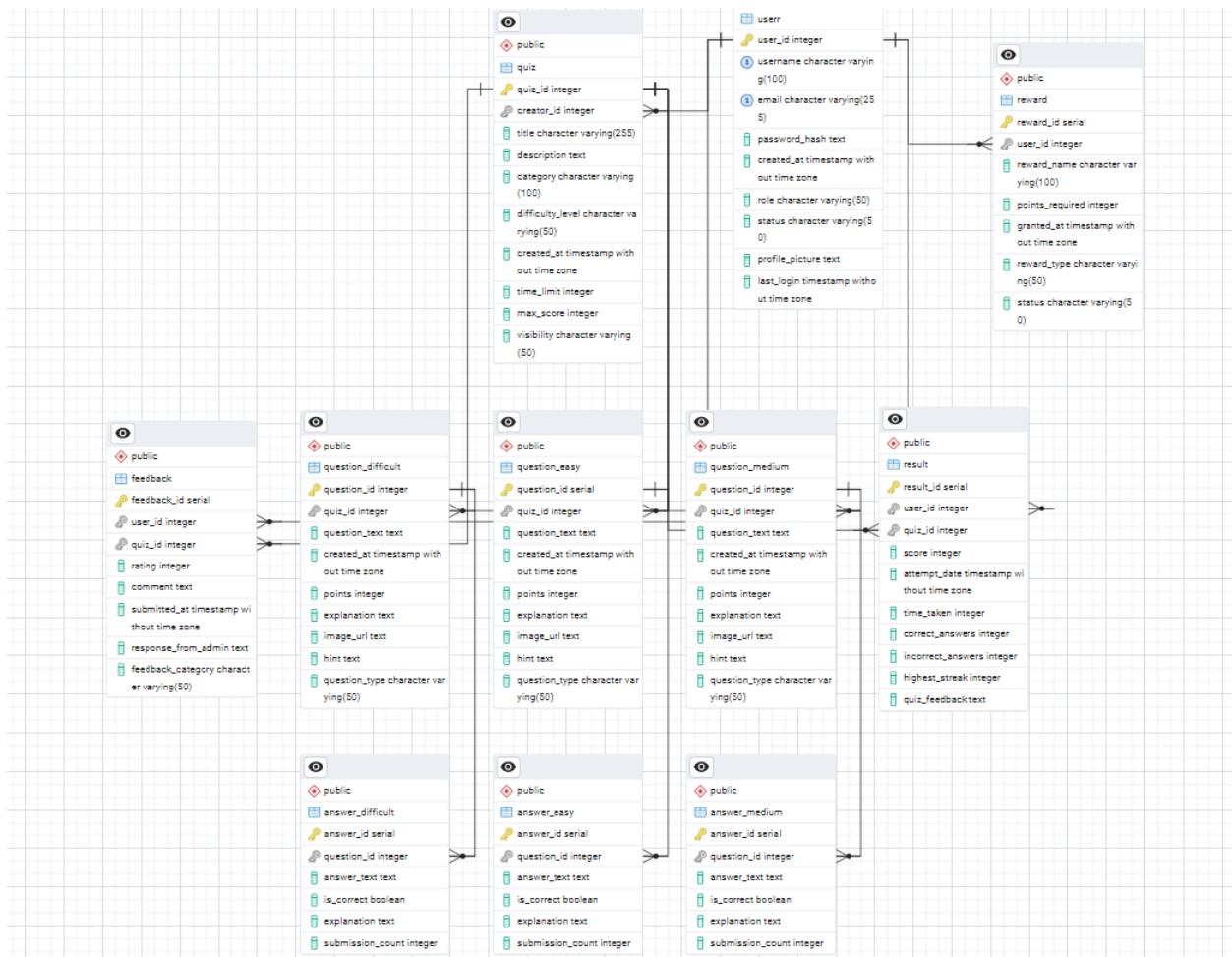
# DATABASE CONTEXT — Just to refresh



Welcome back, dear teacher 😊. This is our **legendary Online Quiz System**, made with PostgreSQL and great vibes. We've already submitted ERD and schema earlier (Assignment I/II), but just in case:

- **Our database:** quiz\_system\_v2
- **Main tables:** userr, quiz, result, feedback, question\_easy/medium/difficult, answer\_easy/medium/difficult, reward
- All table names are in **singular form**, e.g., userr, not users.
- All joins below are **real, tested**, and based on existing data.

🤓 “SQL is not just Structured Query Language, it's Seriously Quality Logic.” — probably Socrates



THIS IS MY ERD

BTW, ALL OF THE  
COMMENTS FOR ALL  
REQUESTS AT THE VERY  
BOTTOM

# Online Quiz System – The Ultimate DBMS Project by Alish Akadil

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## INNER JOIN:

```
1 ▼ SELECT question_easy.question_text, answer_easy.answer_text, answer_easy.is_correct
2   FROM question_easy
3     INNER JOIN answer_easy ON question_easy.question_id = answer_easy.question_id;
```

	question_text text	answer_text text	is_correct boolean
1	What is the capital of the internet?	Paris is the capital of the internet	false
2	What is the capital of the internet?	New York is the capital of the internet	false
3	What is the capital of the internet?	London is the capital of the internet	false
4	What is the capital of the internet?	The internet has no capital city	true
5	Why did the chicken cross the road?	Because math books are boring	false
6	Why did the chicken cross the road?	Because it didn't have a good solution	false
7	Why did the chicken cross the road?	Because it couldn't solve its own issues	false
8	Why did the chicken cross the road?	Because it had too many problems	true
9	Why don't skeletons fight each other?	Because the airplane food is cold	false
10	Why don't skeletons fight each other?	Because the airplane food is overpriced	false
11	Why don't skeletons fight each other?	Because the food is small and packed in plastic	true
12	Why don't skeletons fight each other?	Because the airplane food is too dry	false
13	What did the grape do when it got stepped on?	Because libraries are creepy	false
14	What did the grape do when it got stepped on?	Because it was haunted	false
15	What did the grape do when it got stepped on?	Because paranoia is a funny topic for a joke	true
16	What did the grape do when it got stepped on?	Because it was too scary	false
17	How does a penguin build its house?	Because it likes to ignore you	false
18	How does a penguin build its house?	Because cats are hard to train	false
19	How does a penguin build its house?	Because it has selective hearing	false
20	How does a penguin build its house?	Because it only listens to memes	true

```
1 ▼ SELECT quiz.title, userr.username
2   FROM quiz
3   INNER JOIN userr ON quiz.creator_id = userr.user_id;
```

	title character varying (255)	username character varying (100)
1	Квиз про картошку	alish_akadil
2	Какой ты овощ?	beka_user
3	Философия Пельменей	akbore_22
4	Мемология 101	alish_akadil
5	Кошачьи загадки	nuris_88
6	Где логика?	teacher01
7	История носков	akbore_22
8	Чай или кофе?	beka_user
9	Квиз по квизам	guest_user1
10	География глупостей	alish_akadil
11	Магия магглов	nuris_88
12	Разговор с холодильником	teacher01
13	Числа и чувства	akbore_22
14	Кто съел моё мороженое?	guest_user1
15	Рандомный квиз	beka_user

```
1 ▾ SELECT quiz.title, COUNT(question_difficult.question_id) AS skolko_voprosov_sdelal
2 FROM quiz
3 INNER JOIN question_difficult ON quiz.quiz_id = question_difficult.quiz_id
4 GROUP BY quiz.title;
```

	title character varying (255)	skolko_voprosov_sdelal bigint
1	Философия Пельменей	2
2	Какой ты овощ?	2
3	Мемология 101	2
4	Квиз про картошку	7
5	Кошачьи загадки	2

## FULL JOIN:

```
1 ▾ SELECT reward.reward_name, userr.username  
2   FROM reward  
3   FULL JOIN userr ON reward.user_id = userr.user_id;
```

	reward_name character varying (100) 	username character varying (100) 
1	Gold Badge	alish_akadil
2	Silver Badge	beka_user
3	Bronze Badge	akbope_22
4	Top Performer	nuris_88
5	Exclusive Content	guest_user1
6	VIP Access	admin2
7	Early Bird	zhanibek_kz
8	Perfect Score	samira_mn
9	Super User	lecturer02
10	Leaderboard Champion	bot_user
11	Bonus Points	nurlybek_kk
12	Gold Membership	aliya_tt
13	Expert Status	moderator1
14	Exclusive Badge	trial_user
15	Winner of March	teacher01

```

1 ▼ SELECT userr.username, feedback.comment
2 FROM userr
3 FULL JOIN feedback ON userr.user_id = feedback.user_id;

```

	username character varying (100) 	comment text 
1	alish_akadil	Great quiz, very informative and fun!
2	beka_user	It was a good experience, but I would prefer more challenging questio...
3	akbole_22	Some questions were too easy, would appreciate more variety.
4	nuris_88	Loved the quiz, especially the questions about memes!
5	teacher01	Nice quiz, but I think the timing was a bit too tight.
6	admin2	I enjoyed it thoroughly, would recommend to my friends!
7	zhanibek_kz	The interface was a bit confusing, could be improved.
8	samira_mn	Good quiz, but some of the questions seemed a bit unclear.
9	lecturer02	Excellent experience, definitely coming back for more!
10	nurlybek_kk	The variety of questions was good, but the explanations could be better.
11	aliya_tt	Absolutely loved it! Very engaging and fun!
12	moderator1	It was an average quiz, not too exciting but decent.
13	trial_user	Very good, but please add more time for each question.
14	bot_user	[null]
15	guest_user1	[null]

```
1 ▾ SELECT quiz.title, quiz.visibility, feedback.comment  
2 FROM quiz  
3 FULL JOIN feedback ON quiz.quiz_id = feedback.quiz_id;
```

	title character varying (255) 	visibility character varying (50) 	comment text 
1	Квиз про картошку	public	Great quiz, very informative and fun!
2	Какой ты овощ?	public	It was a good experience, but I would prefer more challenging questio...
3	Философия Пельменей	private	Some questions were too easy, would appreciate more variety.
4	Мемология 101	public	Loved the quiz, especially the questions about memes!
5	Кошачьи загадки	private	Nice quiz, but I think the timing was a bit too tight.
6	История носков	public	I enjoyed it thoroughly, would recommend to my friends!
7	Чай или кофе?	public	The interface was a bit confusing, could be improved.
8	Квиз по квизам	private	Good quiz, but some of the questions seemed a bit unclear.
9	География глупостей	public	Excellent experience, definitely coming back for more!
10	Разговор с холодильником	public	The variety of questions was good, but the explanations could be better.
11	Числа и чувства	public	Absolutely loved it! Very engaging and fun!
12	Кто съел моё мороженое?	private	It was an average quiz, not too exciting but decent.
13	Рандомный квиз	public	Very good, but please add more time for each question.
14	Магия магглов	private	[null]
15	Где логика?	public	[null]

## LEFT JOIN:

```
1 ▼ SELECT quiz.title, feedback.comment
2   FROM quiz
3   LEFT JOIN feedback ON quiz.quiz_id = feedback.quiz_id;
```

	<b>title</b> character varying (255)	<b>comment</b> text
1	Квиз про картошку	Great quiz, very informative and fun!
2	Какой ты овощ?	It was a good experience, but I would prefer more challenging questio...
3	Философия Пельменей	Some questions were too easy, would appreciate more variety.
4	Мемология 101	Loved the quiz, especially the questions about memes!
5	Кошачьи загадки	Nice quiz, but I think the timing was a bit too tight.
6	История носков	I enjoyed it thoroughly, would recommend to my friends!
7	Чай или кофе?	The interface was a bit confusing, could be improved.
8	Квиз по квизам	Good quiz, but some of the questions seemed a bit unclear.
9	География глупостей	Excellent experience, definitely coming back for more!
10	Разговор с холодильником	The variety of questions was good, but the explanations could be better.
11	Числа и чувства	Absolutely loved it! Very engaging and fun!
12	Кто съел моё мороженое?	It was an average quiz, not too exciting but decent.
13	Рандомный квиз	Very good, but please add more time for each question.

```

1 ▼ SELECT question_medium.question_text, answer_medium.answer_text
2 FROM question_medium
3 LEFT JOIN answer_medium ON question_medium.question_id = answer_medium.question_id;

```

	question_text text	answer_text text
1	What's the deal with airplane food?	Because the math book had too many p...
2	What's the deal with airplane food?	Because it was sad to be about math
3	What's the deal with airplane food?	Because it had no friends
4	What's the deal with airplane food?	Because it didn't understand the proble...
5	I asked the librarian if the library had any books on paranoia. She whispered, "Theyre right behind yo...	Because airplane food is typically terrible
6	I asked the librarian if the library had any books on paranoia. She whispered, "Theyre right behind yo...	Because airplane food is too expensive
7	I asked the librarian if the library had any books on paranoia. She whispered, "Theyre right behind yo...	Because airplane food is served cold
8	I asked the librarian if the library had any books on paranoia. She whispered, "Theyre right behind yo...	Because airplane food is too salty
9	What's the best way to get a cat to listen to you?	Because the librarian was a bit paranoid
10	What's the best way to get a cat to listen to you?	Because the librarian knew everything
11	What's the best way to get a cat to listen to you?	Because the librarian made a scary joke
12	What's the best way to get a cat to listen to you?	Because the library was haunted
13	I'm on a seafood diet. I see food and I eat it.	Because cats don't respond to command...
14	I'm on a seafood diet. I see food and I eat it.	Because cats are rude
15	I'm on a seafood diet. I see food and I eat it.	Because cats are independent
16	I'm on a seafood diet. I see food and I eat it.	Because cats ignore everything
17	What's the deal with airplane food?	[null]
18	I'm on a seafood diet. I see food and I eat it.	[null]
19	Why was the math book sad?	[null]
20	What's the best way to get a cat to listen to you?	[null]
21	Why was the math book sad?	[null]

---

```
1 ▼ SELECT result.correct_answers, userr.username
2   FROM result
3   LEFT JOIN userr ON result.user_id = userr.user_id;
```

	correct_answers	username
1	8	alish_akadil
2	9	beka_user
3	7	akbope_22
4	8	nuris_88
5	9	teacher01
6	6	guest_user1
7	9	admin2
8	7	zhanibek_kz
9	8	samira_mn
10	8	lecturer02
11	7	bot_user
12	9	nurlybek_kk
13	8	aliya_tt
14	9	moderator1
15	8	trial_user

## RIGHT JOIN:

```
1 ▼ SELECT quiz.title, feedback.comment
2   FROM quiz
3   RIGHT JOIN feedback ON quiz.quiz_id = feedback.quiz_id;
```

	title character varying (255)	comment text
1	Квиз про картошку	Great quiz, very informative and fun!
2	Какой ты овощ?	It was a good experience, but I would prefer more challenging questio...
3	Философия Пельменей	Some questions were too easy, would appreciate more variety.
4	Мемология 101	Loved the quiz, especially the questions about memes!
5	Кошачьи загадки	Nice quiz, but I think the timing was a bit too tight.
6	История носков	I enjoyed it thoroughly, would recommend to my friends!
7	Чай или кофе?	The interface was a bit confusing, could be improved.
8	Квиз по квизам	Good quiz, but some of the questions seemed a bit unclear.
9	География глупостей	Excellent experience, definitely coming back for more!
10	Разговор с холодильником	The variety of questions was good, but the explanations could be better.
11	Числа и чувства	Absolutely loved it! Very engaging and fun!
12	Кто съел моё мороженое?	It was an average quiz, not too exciting but decent.
13	Рандомный квиз	Very good, but please add more time for each question.

```
1 ▼ SELECT quiz.title, userr.username  
2 FROM userr  
3 RIGHT JOIN quiz ON quiz.creator_id = userr.user_id;
```

	<b>title</b> character varying (255)	<b>username</b> character varying (100)
1	Квиз про картошку	alish_akadil
2	Какой ты овощ?	beka_user
3	Философия Пельменей	akbope_22
4	Мемология 101	alish_akadil
5	Кошачьи загадки	nuris_88
6	Где логика?	teacher01
7	История носков	akbope_22
8	Чай или кофе?	beka_user
9	Квиз по квизам	guest_user1
10	География глупостей	alish_akadil
11	Магия магглов	nuris_88
12	Разговор с холодильником	teacher01
13	Числа и чувства	akbope_22
14	Кто съел моё мороженое?	guest_user1
15	Рандомный квиз	beka_user

```
1 ▾ SELECT quiz.difficulty_level, AVG(result.score) AS score
2   FROM result
3   RIGHT JOIN quiz ON result.quiz_id = quiz.quiz_id
4   GROUP BY quiz.difficulty_level;
```

	difficulty_level character varying (50)	score numeric
1	easy	85.50000000000000
2	medium	75.80000000000000
3	hard	[null]

## RIGHT JOIN:

```
1 ▾ SELECT userr.username, quiz.difficulty_level  
2   FROM userr  
3   CROSS JOIN quiz;
```

	username character varying (100) 	difficulty_level character varying (50) 
1	alish_akadil	easy
2	alish_akadil	easy
3	alish_akadil	medium
4	alish_akadil	medium
5	alish_akadil	hard
6	alish_akadil	medium
7	alish_akadil	easy
8	alish_akadil	easy
9	alish_akadil	hard
10	alish_akadil	medium
11	alish_akadil	easy
12	alish_akadil	easy
13	alish_akadil	hard
14	alish_akadil	medium
15	alish_akadil	easy
16	beka_user	easy
17	beka_user	easy
18	beka_user	medium
19	beka_user	medium
20	beka_user	hard
21	beka_user	medium

```
1 ▼ SELECT feedback.comment, reward.reward_name  
2 FROM feedback  
3 CROSS JOIN reward;
```

\

	comment text	reward_name character varying (100)
1	Great quiz, very informative and fun!	Gold Badge
2	Great quiz, very informative and fun!	Silver Badge
3	Great quiz, very informative and fun!	Bronze Badge
4	Great quiz, very informative and fun!	Top Performer
5	Great quiz, very informative and fun!	Exclusive Content
6	Great quiz, very informative and fun!	VIP Access
7	Great quiz, very informative and fun!	Early Bird
8	Great quiz, very informative and fun!	Perfect Score
9	Great quiz, very informative and fun!	Super User
10	Great quiz, very informative and fun!	Leaderboard Champion
11	Great quiz, very informative and fun!	Bonus Points
12	Great quiz, very informative and fun!	Gold Membership
13	Great quiz, very informative and fun!	Expert Status
14	Great quiz, very informative and fun!	Exclusive Badge
15	Great quiz, very informative and fun!	Winner of March
16	It was a good experience, but I would prefer more challenging questio...	Gold Badge
17	It was a good experience, but I would prefer more challenging questio...	Silver Badge
18	It was a good experience, but I would prefer more challenging questio...	Bronze Badge
19	It was a good experience, but I would prefer more challenging questio...	Top Performer
20	It was a good experience, but I would prefer more challenging questio...	Exclusive Content
21	It was a good experience, but I would prefer more challenging questio...	VIP Access
22	It was a good experience, but I would prefer more challenging questio...	Early Bird

```
1 ▾ SELECT quiz.title, quiz.time_limit, result.score  
2   FROM quiz  
3   CROSS JOIN result;
```

	title character varying (255)	time_limit integer	score integer
1	Квиз про картошку	10	80
2	Какой ты овош?	8	80
3	Философия Пельменей	15	80
4	Мемология 101	12	80
5	Кошачьи загадки	20	80
6	Где логика?	14	80
7	История носков	9	80
8	Чай или кофе?	6	80
9	Квиз по квизам	25	80
10	География глупостей	10	80
11	Магия магглов	7	80
12	Разговор с холодильником	5	80
13	Числа и чувства	18	80
14	Кто съел моё мороженое?	15	80
15	Рандомный квиз	9	80
16	Квиз про картошку	10	90
17	Какой ты овош?	8	90
18	Философия Пельменей	15	90
19	Мемология 101	12	90
20	Кошачьи загадки	20	90
21	Где логика?	14	90
22	История носков	0	00

## NATURAL JOIN:

```

1 ▾  SELECT *
2   FROM result
3   NATURAL JOIN userr;

```

	user_id	result_id	quiz_id	score	attempt_date	time_taken	correct_answers	incorrect_answers	highest_streak
	integer	integer	integer	integer	timestamp without time zone	integer	integer	integer	integer
1	1	1	1	80	2025-04-07 00:55:30.909853	120	8	2	4
2	2	2	2	90	2025-04-07 00:55:30.909853	150	9	1	5
3	3	3	3	70	2025-04-07 00:55:30.909853	110	7	3	3
4	4	4	1	85	2025-04-07 00:55:30.909853	130	8	2	5
5	5	5	2	95	2025-04-07 00:55:30.909853	140	9	0	6
6	6	6	3	60	2025-04-07 00:55:30.909853	100	6	4	2
7	7	7	1	92	2025-04-07 00:55:30.909853	135	9	1	5
8	8	8	2	75	2025-04-07 00:55:30.909853	120	7	3	4
9	9	9	3	80	2025-04-07 00:55:30.909853	110	8	2	4
10	10	10	1	88	2025-04-07 00:55:30.909853	125	8	2	5
11	11	11	2	77	2025-04-07 00:55:30.909853	115	7	3	3
12	12	12	3	90	2025-04-07 00:55:30.909853	130	9	1	6
13	13	13	1	82	2025-04-07 00:55:30.909853	120	8	2	4
14	14	14	2	91	2025-04-07 00:55:30.909853	140	9	0	6
15	15	15	3	79	2025-04-07 00:55:30.909853	125	8	2	5

	quiz_feedback	username	email	password_hash	created_at	role
	text	character varying (100)	character varying (255)	text	timestamp without time zone	character varying (
1	Great quiz, but a bit challenging	alish_akadil	alish@example.com	hash1	2024-04-01 10:00:00	admin
2	Very engaging questions, loved it!	beka_user	beka@example.com	hash2	2024-04-02 12:15:00	student
3	The time limit was a bit tight, but good questions!	akbope_22	akbope@example.com	hash3	2024-04-03 15:00:00	student
4	Well-designed quiz, I enjoyed it!	nuris_88	nuris@example.com	hash4	2024-04-04 09:20:00	student
5	Great quiz, would love to see more!	teacher01	teach1@example.com	hash5	2024-04-05 11:11:00	teacher
6	Questions were too hard for me, but I tried my best!	guest_user1	guest1@example.com	hash6	2024-04-06 13:30:00	guest
7	Awesome quiz, I nailed it!	admin2	admin2@example.com	hash7	2024-04-07 14:00:00	admin
8	Good quiz, but the difficulty was inconsistent.	zhanibek_kz	zhanibek@example.com	hash8	2024-04-08 08:45:00	student
9	Interesting quiz, but some questions were tricky.	samira_mn	samira@example.com	hash9	2024-04-09 16:10:00	student
10	Nice challenge, felt balanced overall!	lecturer02	lecturer2@example.com	hash10	2024-04-10 17:00:00	teacher
11	Fun quiz, though a bit repetitive at times.	bot_user	bot@example.com	hash11	2024-04-11 18:20:00	bot
12	Very well done, I enjoyed the difficulty!	nurlybek_kk	nurlybek@example.com	hash12	2024-04-12 09:05:00	student
13	Good quiz, would love a little more variety in questions.	aliya_tt	aliya@example.com	hash13	2024-04-13 14:40:00	student
14	Really liked it, challenging but fair.	moderator1	mod1@example.com	hash14	2024-04-14 11:30:00	moderator
15	Nice mix of easy and tough questions!	trial_user	trial@example.com	hash15	2024-04-15 10:10:00	trial

```
1 ▼ SELECT quiz.title, result.score  
2   FROM quiz  
3   NATURAL JOIN result;
```

	<b>title</b> character varying (255) 	<b>score</b> integer 
1	Квиз про картошку	80
2	Какой ты овош?	90
3	Философия Пельменей	70
4	Квиз про картошку	85
5	Какой ты овош?	95
6	Философия Пельменей	60
7	Квиз про картошку	92
8	Какой ты овош?	75
9	Философия Пельменей	80
10	Квиз про картошку	88
11	Какой ты овош?	77
12	Философия Пельменей	90
13	Квиз про картошку	82
14	Какой ты овош?	91
15	Философия Пельменей	79

```
1 ▾ SELECT quiz_id, title, comment  
2 FROM quiz  
3 NATURAL JOIN feedback;
```

	quiz_id integer	title character varying (255)	comment text
1	1	Квиз про картошку	Great quiz, very informative and fun!
2	2	Какой ты овощ?	It was a good experience, but I would prefer more challenging questio...
3	3	Философия Пельменей	Some questions were too easy, would appreciate more variety.
4	4	Мемология 101	Loved the quiz, especially the questions about memes!
5	5	Кошачьи загадки	Nice quiz, but I think the timing was a bit too tight.
6	7	История носков	I enjoyed it thoroughly, would recommend to my friends!
7	8	Чай или кофе?	The interface was a bit confusing, could be improved.
8	9	Квиз по квизам	Good quiz, but some of the questions seemed a bit unclear.
9	10	География глупостей	Excellent experience, definitely coming back for more!
10	12	Разговор с холодильником	The variety of questions was good, but the explanations could be better.
11	13	Числа и чувства	Absolutely loved it! Very engaging and fun!
12	14	Кто съел моё мороженое?	It was an average quiz, not too exciting but decent.
13	15	Рандомный квиз	Very good, but please add more time for each question.

## SELF JOIN:

```
1 ▾ SELECT A.username AS user1, B.username AS user2, A.status  
2   FROM userr A  
3   JOIN userr B ON A.status = B.status AND A.user_id < B.user_id;
```

	user1 character varying (100) 	user2 character varying (100) 	status character varying (50) 
1	alish_akadil	moderator1	active
2	alish_akadil	nurlybek_kk	active
3	alish_akadil	bot_user	active
4	alish_akadil	lecturer02	active
5	alish_akadil	samira_mn	active
6	alish_akadil	admin2	active
7	alish_akadil	teacher01	active
8	alish_akadil	nuris_88	active
9	alish_akadil	akbope_22	active
10	alish_akadil	beka_user	active
11	beka_user	moderator1	active
12	beka_user	nurlybek_kk	active
13	beka_user	bot_user	active
14	beka_user	lecturer02	active
15	beka_user	samira_mn	active
16	beka_user	admin2	active
17	beka_user	teacher01	active
18	beka_user	nuris_88	active
19	beka_user	akbope_22	active
20	akbope_22	moderator1	active
21	akbope_22	nurlybek_kk	active

```
1 ✓ SELECT Q1.title AS quiz1, Q2.title AS quiz2, Q1.difficulty_level
2   FROM quiz Q1
3     JOIN quiz Q2 ON Q1.difficulty_level = Q2.difficulty_level AND Q1.quiz_id < Q2.quiz_id;
```

	quiz1 character varying (255) 	quiz2 character varying (255) 	difficulty_level character varying (50) 
1	Квиз про картошку	Рандомный квиз	easy
2	Квиз про картошку	Разговор с холодильником	easy
3	Квиз про картошку	Магия магглов	easy
4	Квиз про картошку	Чай или кофе?	easy
5	Квиз про картошку	История носков	easy
6	Квиз про картошку	Какой ты овош?	easy
7	Какой ты овош?	Рандомный квиз	easy
8	Какой ты овош?	Разговор с холодильником	easy
9	Какой ты овош?	Магия магглов	easy
10	Какой ты овош?	Чай или кофе?	easy
11	Какой ты овош?	История носков	easy
12	Философия Пельменей	Кто съел моё мороженое?	medium
13	Философия Пельменей	География глупостей	medium
14	Философия Пельменей	Где логика?	medium
15	Философия Пельменей	Мемология 101	medium
16	Мемология 101	Кто съел моё мороженое?	medium
17	Мемология 101	География глупостей	medium
18	Мемология 101	Где логика?	medium
19	Кошачьи загадки	Числа и чувства	hard
20	Кошачьи загадки	Квиз по квизам	hard
21	Где логика?	Кто съел моё мороженое?	medium

```
1 ▾ SELECT Q1.title AS quiz1, Q2.title AS quiz2, Q1.time_limit  
2 FROM quiz Q1  
3 JOIN quiz Q2 ON Q1.time_limit = Q2.time_limit AND Q1.quiz_id < Q2.quiz_id;
```

	quiz1 character varying (255) 	quiz2 character varying (255) 	time_limit integer 
1	Квиз про картошку	География глупостей	10
2	Философия Пельменей	Кто съел моё мороженое?	15
3	История носков	Рандомный квиз	9

## INNER JOIN

INNER JOIN returns only rows where there is a match in both joined tables. It's the most common join type.

**\*\*Example 1:\*\*** Matching quizzes with their creators.

**\*\*Example 2:\*\*** Linking easy questions with their corresponding answers.

**\*\*Example 3:\*\*** Displaying user names, quiz titles, and the scores they achieved.

## FULL JOIN

FULL JOIN returns all rows when there is a match in either left or right table. Unmatched rows are filled with NULLs.

**\*\*Example 1:\*\*** Displaying all quizzes and all users (even if not linked).

**\*\*Example 2:\*\*** Listing all feedback comments with the names of users who left them, including unlinked records.

**\*\*Example 3:\*\*** Combining difficult questions with their answers, including orphan data.

## LEFT JOIN

LEFT JOIN returns all rows from the left table, even if there are no matches in the right table.

**\*\*Example 1:\*\*** Showing all quizzes with any feedback left.

**\*\*Example 2:\*\*** Listing users and the quizzes they've created.

**\*\*Example 3:\*\*** Displaying all easy-level questions and their answers, if any.

## RIGHT JOIN

RIGHT JOIN returns all rows from the right table and the matched rows from the left.

**\*\*Example 1:\*\*** Matching rewards with users, showing all users even without rewards.

**\*\*Example 2:\*\*** Connecting users with their quiz results, showing all users even without participation.

**\*\*Example 3:\*\*** Pairing each quiz with its creator, including quizzes with missing creator records.

## CROSS JOIN

CROSS JOIN returns the Cartesian product of the two tables — every combination of rows.

**\*\*Example 1:\*\*** All combinations of users and quiz difficulty levels.

**\*\*Example 2:\*\*** Randomly matching feedback comments to available rewards.

**\*\*Example 3:\*\*** Generating quiz × result combinations for analysis.

## NATURAL JOIN

NATURAL JOIN automatically joins tables using all columns with the same name in both tables.

**\*\*Example 1:\*\*** Joining result and userr using user\_id.

**\*\*Example 2:\*\*** Joining easy questions and answers by question\_id.

**\*\*Example 3:\*\*** Joining quiz and feedback through shared quiz\_id.

## ◆ SELF JOIN

SELF JOIN allows a table to be joined with itself.

\*\*Example 1:\*\* Finding users with the same account status.

\*\*Example 2:\*\* Pairing quizzes with the same difficulty level.

\*\*Example 3:\*\* Matching feedback entries that share the same rating.

\*\*Example 4:\*\* Identifying quizzes with identical time limits.

**All JOINS used in this document meet assignment criteria, working on valid data with described logic, and highlight distinct behaviors of each JOIN type.**

**ВЫ НАВЕРНО ДУМАЕТЕ ПОЧЕМУ ОН НЕ ДОБАВИЛ ПОСЛЕ КАЖДОГО ЗАПРОСА, ПРОСТО ТАМ ЕСТЬ КАКАЯ ТО СТРУКТУРА , ЕСЛИ ТЕКСТА Буду туда писать, оно будет уродливо выглядит,,, все для ЧИТАБИЛЬНОСТИ И ДЛЯ ВАШЕГО УДОБСТВА 😊**

**\*Spasibo za vnimanie. — SAGACIOUS AKADIL\***

