

Milestone #: 4

Date: 12 / 1 / 2023

Group Number: 33

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Repository link:

https://github.students.cs.ubc.ca/CPSC304-2023W-T1/project_g9v7y_h4o1o_07n3k.git

Short description and our aim for the application:

Our group made a fitness web application that aims to help its users in their fitness journey and whatever they want to achieve in it. What we wanted our application to accomplish was that our users can find all the support and information they required at one place. To do this we incorporated various features in our application and divided our user population into categories to give them more features if they were paying for our application.

We have three **types of people** who can use our application:

- Free Users (they get ads as they have not paid for the application)
- Paid Users (they have “paid” us to use our application)
- Trainers (these are people who work with the application to train our paid users)

Each free user:

- can set, delete and track the goals they make for themselves.
- has access to notifications that we, the application, send to them to remind them of the steps they can take to improve their overall health journey.
- have access to content that we, the application, have selected for our users to make them more informed about health, nutrition, exercise and fitness.
- get a nutrition plan that we, the application, recommends them based on the data they have provided us about themselves.

Each paid user:

- has access to everything that a free user has.
- get assigned to a trainer that helps them in their fitness journey.
- get a customized exercise plan made for them by the trainer they were assigned to.

Each trainer:

- gets assigned some paid users that they become responsible for.
- make and edit customized exercise plans for the paid user.
- Has access to the paid user data

General Overview of the application:

- **On the user’s view:**
 - Home page (displays all goals, allows creation and deletion of goals)
 - Notifications page (displays notification sent by the application to the user)
 - Progress page (displays user’s progress based on current and completed goals)

- Content page (displays the content the application has select that provides information about health and fitness)
- Plans Page (displays the nutrition and exercise plan)
- **On the trainer's view:**
 - Has list of all their clients
 - Can select a client to view, edit or create new their specific exercise plans
 - Can select exercises based on what would benefit the user

Changes to Schema:

- Increased VARCHAR size on most attributes to accommodate to longer inputs
- Removed total participations for FUsers and Goals to simplify implementation
- Removed Shown table for Ads since it was unnecessary
- Merge Trains table into PaidUser1, to reduce complexity
- Change Creates table name to GoalReports
- Change Includes table name to PlanIncludes
- Removed interval attribute from PersonalReminders table since it was unused
- Add password attribute to FUser and Trainer to allow secure login

A copy of the schema and screenshots that show what data is present in each relation after the SQL initialization script is run.

Ad Table:

Ad(AID: int, Company: Char (50), URL: Char(100))



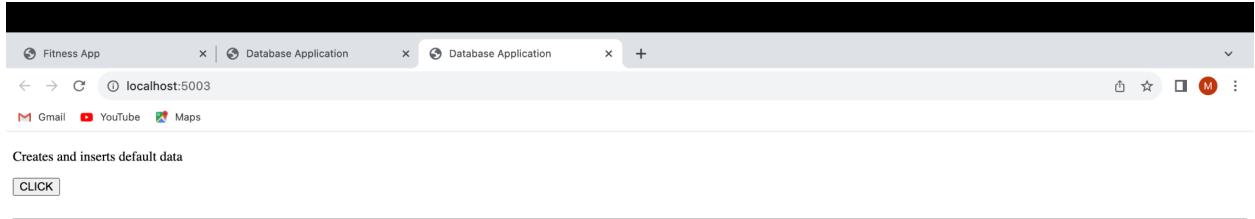
AID	Company name	URL
11	Adobe	https://www.adobe.com
3	Microsoft	https://www.microsoft.com
1	Google	https://www.google.com
2	Apple	https://www.apple.com
4	Amazon	https://www.amazon.com
5	Facebook	https://www.facebook.com
6	Tesla	https://www.tesla.com
7	Netflix	https://www.netflix.com
8	Twitter	https://www.twitter.com
9	IBM	https://www.ibm.com
10	Salesforce	https://www.salesforce.com
12	Intel	https://www.intel.com
13	Cisco	https://www.cisco.com
14	HP	https://www.hp.com
15	Oracle	https://www.oracle.com
16	Uber	https://www.uber.com
17	Airbnb	https://www.airbnb.com
18	Spotify	https://www.spotify.com
19	Dropbox	https://www.dropbox.com
20	Slack	https://www.slack.com

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Content Table:

Content (CID : int, URL: Char (100), Author : Char (20))



Show Table

CID	Author	URL
1	British Heart Foundation	https://www.youtube.com/watch?v=wWGuILAA0OO
2	Science Animated	https://www.youtube.com/watch?v=MoT-8b8szJI
3	The Mike Hansen Show	https://www.youtube.com/watch?v=4VV7kAUGrI
4	Braive	https://www.youtube.com/watch?v=Wto7zISB2d0
6	Meghan Livingstone	https://www.youtube.com/watch?v=s2nuV7lyrs
7	Pick Up Limes	https://www.youtube.com/watch?v=XulBKrrRC3k
8	Johns Hopkins Medicine	https://www.youtube.com/watch?v=zJgHbfIx-Q
10	Liezl Jayne Strydom	https://www.youtube.com/watch?v=j4QKKYFH1E
11	Body Project	https://www.youtube.com/watch?v=gC_19qAHVJ8
12	Body Project	https://www.youtube.com/watch?v=3SpPraOLj4
13	National Institute on Aging	https://www.youtube.com/watch?v=MjMkBaqimFo
14	Oasis Mental Health Applications	https://www.youtube.com/watch?v=rDccGSLE9k
15	TEDx Talks	https://www.youtube.com/watch?v=37UhELFvPcc
16	Doctor Mike Hansen	https://www.youtube.com/watch?v=XqTce_acTI
17	TED	https://www.youtube.com/watch?v=BHYOFxzoKZE
18	Bestie	https://www.youtube.com/watch?v=inEPZZ_SF
19	Dr. Eric Berg DC	https://www.youtube.com/watch?v=VhVqz4KuEgl
20	Coach Viva	https://www.youtube.com/watch?v=G1qW2qd3ql
5	NationwideChildrens	https://www.youtube.com/watch?v=tWYFnndopV18
9	Med Today	https://www.youtube.com/watch?v=zdjWnvbaUZo

Exercise Plan Table:

Exercise Plan (EPIID : int, Type : Char(20), **TID**: int, **userid**: int)

Fitness App | Database Application | Database Application

localhost:5003

Gmail YouTube Maps

Show Table

EPID	Plan Type	TID	UserID
1	Exercise Plan 1: Cardio	2	1
8	Exercise Plan 8: CrossFit	4	8
2	Exercise Plan 2: Pilates	3	2
3	Exercise Plan 3: Yoga	4	3
4	Exercise Plan 4: HIIT	5	4
5	Exercise Plan 5: Cycling	1	5
6	Exercise Plan 6: Strength training	2	6
7	Exercise Plan 7: Swimming	3	7
9	Exercise Plan 9: Yoga	5	9
10	Exercise Plan 10: Cardio	1	10
11	Exercise Plan 11: Pilates	2	11
12	Exercise Plan 12: Strength training	3	12
13	Exercise Plan 13: HIIT	4	13
14	Exercise Plan 14: CrossFit	5	14
15	Exercise Plan 15: Yoga	1	15
16	Exercise Plan 16: Swimming	2	16
17	Exercise Plan 17: Cardio	3	17
18	Exercise Plan 18: Cycling	4	18
19	Exercise Plan 19: Pilates	5	19
20	Exercise Plan 20: Strength training	1	20
21	Cardio	2	2
22	Pilates	3	3
23	Yoga	4	4
24	HIIT	5	5
25	Cycling	1	1
26	Strength training	2	2
27	Swimming	3	3
28	CrossFit	4	4
29	Yoga	5	5

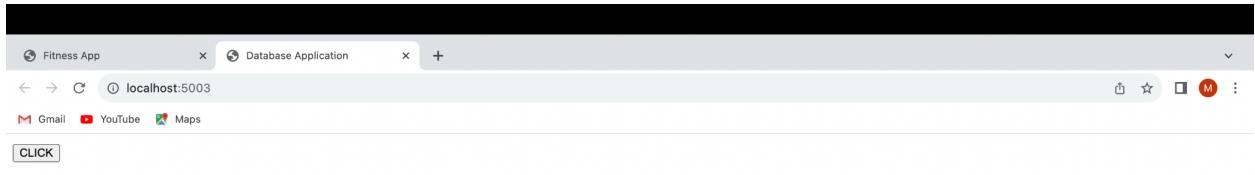
Fitness App | Database Application | Database Application

localhost:5003

Gmail YouTube Maps

Exercise Table:

Exercise (EID : int, Type : Char (20), Name : Char (20))



Insert Default Data

Creates and inserts default data

Show Table

EID	Name	Exercise Type
1	Barbell Front Squat	Resistance/Conditioning
2	Barbell Back Squat	Resistance/Conditioning
3	Running	Cardio
4	Swimming	Cardio
5	Grappling	Martial Arts
6	Suicides	Cardio

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Insert Values into DemoTable

Goals Report:

GoalsReport (GID: int, PID: int)

Custom Table

GoalReports

GID	PID
1	1
1	2
1	3
2	1
2	3
3	2

CLICK

Goals Table:

Goals (GID : int, Category : Char (20), TargetWeight : int, TargetDate : Char(40), **userid**: int)

Database Application

localhost:5004

Gmail YouTube Maps

Creates and inserts certain data

CLICK

Show Table

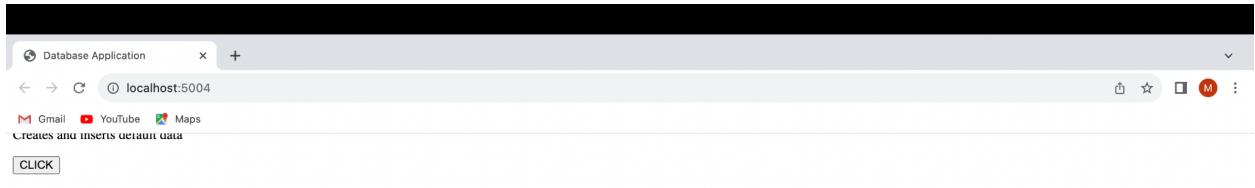
GID	Category	Weight	Date	UserID
7	Toning	65	2023-Jun-20	7
1	Weight Loss	100	2023-Dec-31	1
2	Fitness	45	2023-Jan-21	2
3	Weight Loss	80	2023-Feb-2	3
4	Muscle Gain	50	2023-Mar-18	4
5	Endurance	66	2023-Apr-3	5
6	Maintain Weight	60	2023-May-28	6
8	Agility	49	2023-Jan-11	8
9	Bodybuilding	70	2023-Jul-21	9
10	Posture Improvement	58	2023-Mar-30	10
11	CrossFit	78	2023-Apr-12	11
12	Balance Training	67	2023-May-25	12
13	Rehabilitation	85	2023-Jan-13	13
14	Speed Training	56	2023-Jul-3	14
15	Functional Fitness	63	2023-Feb-15	15
16	Powerlifting	82	2023-Mar-17	16
17	Circuit Training	68	2023-Apr-21	17

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Notifications Table:

Notification(RID: userid:int, msg: Char (150))



Show Table

RID	UserID	Message
2	2	Sunshine boosts mood. Get outside for fresh air.
3	3	Listen to your body. Rest when feeling fatigued.
5	5	Prioritize self-care. Take time to recharge daily.
6	6	Build support. Workout buddies keep you accountable.
7	7	Stay consistent. Small habits lead to big results.
8	8	Hydrate with herbal tea for added flavor and benefits.
9	9	Quality sleep fuels recovery. Aim for 7-9 hours nightly.
10	10	Posture matters. Sit up straight, stand tall, support your spine.
11	11	New goals, new challenges. Push your limits, see progress.
13	13	Cardio and strength for diversity. Keep workouts effective.
14	14	Stay hydrated with infused water. Delicious and healthy.
19	1	Laugh often! Laughter has health benefits.
4	4	Laugh often! Laughter has health benefits.
12	12	Outdoor workouts boost mood. Find joy in movement.

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Nutrition Table:

Nutrition Plan (NID : int, Carbs : int, Fats : int, Protein : int, Calories: int, **userid**: int)

A screenshot of a web browser window titled "Database Application". The address bar shows "localhost:5004". Below the address bar, there are links for Gmail, YouTube, and Maps. A message "Creates and inserts certain data" is displayed above a "CLICK" button.

Show Table

NID	Carbs	Fats	Protein	Calories	userId
1	100	100	100	2200	1
2	150	100	80	2400	2
3	220	60	120	2300	3
4	280	50	90	2400	4
5	120	80	120	2800	5
6	180	100	100	3200	6

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Insert Values into DemoTable

ID:

Name:

PaidUser1 Table

Paid User1 (**userid**: int, Postal Code: Char (12), Country: Char (15) NOT NULL)

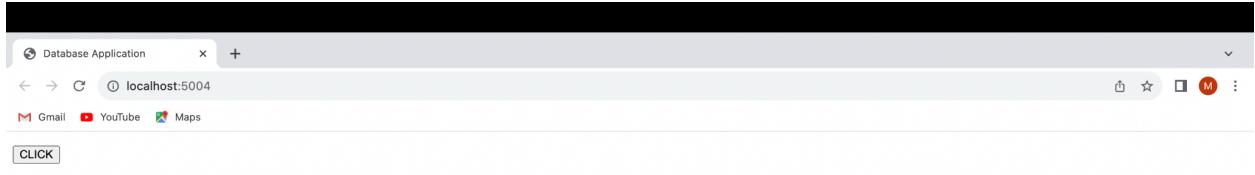


UserID	Postal Code	Country	TID
2	100-0001	Japan	2
3	2000	Australia	3
4	2196	South Africa	4
5	110001	India	5
6	06010	Mexico	1
7	101000	Russia	2
14	03187	South Korea	4
15	75001	France	5
16	M5A 1A1	Canada	1
17	11511	Egypt	2
18	34000	Turkey	3
19	10100	Thailand	4
20	12345	United Arab Emirates	5
1	20040-010	Brazil	1
8	11564	Saudi Arabia	3
9	C1002AAP	Argentina	4
10	100010	China	5
11	00100	Italy	1
12	900001	Nigeria	2
13	111 20	Sweden	3

Reset Demotable

PaidUser2 Table:

Paid User2 (**Postal Code**: Char (12), **Country**: Char (15) NOT NULL, City: Char (20) NOT NULL)



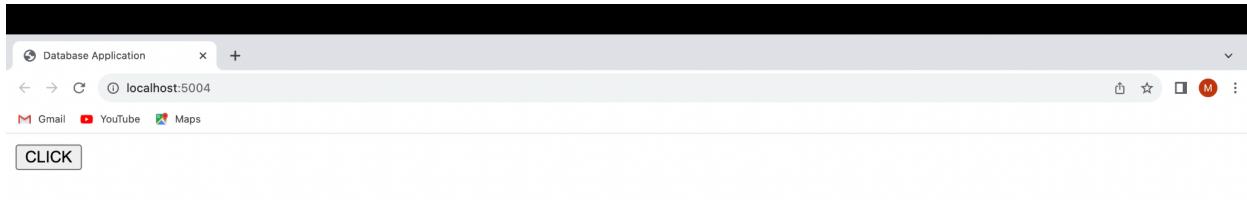
Show Table

Postal Code	Country	City
20040-010	Brazil	BR-Rio de Janeiro
100-0001	Japan	JP-Tokyo
2000	Australia	AU-Sydney
2196	South Africa	ZA-Johannesburg
110001	India	IN-New Delhi
06010	Mexico	MX-Mexico City
101000	Russia	RU-Moscow
11564	Saudi Arabia	SA-Riyadh
C1002AAP	Argentina	AR-Buenos Aires
100010	China	CN-Beijing
00100	Italy	IT-Rome
900001	Nigeria	NG-Lagos
111 20	Sweden	SE-Stockholm
03187	South Korea	KR-Seoul
75001	France	FR-Paris
M5A 1A1	Canada	CA-Toronto
11511	Egypt	EG-Cairo
34000	Turkey	TR-Istanbul
10100	Thailand	TH-Bangkok
12345	United Arab Emirates	AE-Dubai

Reset Demutable

PlanIncludes table:

Plans(TID: int, EPID: int)



Show Table

EPID	EID
2	1
2	3
3	2

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

Insert Values into DemoTable

ID:

ProgressReport (PID : int, Satisfaction : Char (20), date: Date, **userid**: int)

progressreport			
PID	SATISFACTION	REPORTDATE	USERID
1	Successful	1701457185559	1
2	Moderately Happy	1701457185656	2
3	Ok	1701457185746	3
4	Perfect	1701457185852	4
5	No Progress	1701457185968	5
6	Regression	1701457186082	6

Trainer Table:

Trainer (TID : int, Name: Char (20), Email: Char(100), Password: Char (72), City: Char(20), Country: Char(15))



Insert Default Data

Creates and inserts default data

Show Table

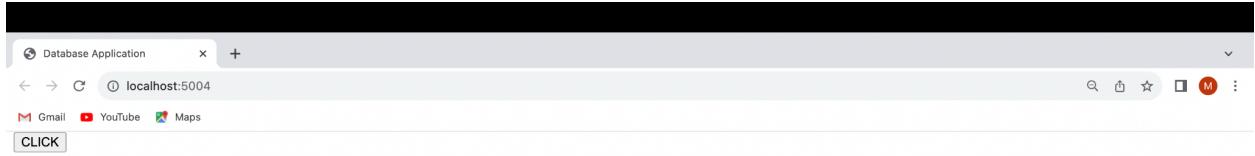
TID	Name	Email	Password	City	Country
5	Kgosi Ndlovu	kgosi.ndlovu@aol.com	cucumber	ZA-Johannesburg	South Africa
1	Test Trainer	trainer	cucumber	random city	trainer
2	Carlos Silva	carlos.silva@gmail.com	cucumber	BR-Rio de Janeiro	Brazil
3	Yuki Tanaka	yuki.tanaka@yahoo.com	cucumber	JP-Tokyo	Japan
4	Emma Smith	emma.smith@hotmail.com	cucumber	AU-Sydney	Australia

Reset Demutable

If you wish to reset the table press on the reset button. If this is the first time you're running this page, you MUST use reset

FUser table:

User(userid : int , Name: Char(20), Email: Char(100) UNIQUE, Password: Char (27))



Show Table

UserID	Name	Email	Password
7	Ananya Gupta	ananya.gupta@outlook.com	eazyPassword
1	Ahmed Khan	ahmed.khan@gmail.com	eazyPassword
2	Maria Rodriguez	maria.rodriguez@hotmail.com	eazyPassword
3	Yuki Takahashi	yuki.takahashi@gmail.com	eazyPassword
4	Carlos Silva	carlos.silva@outlook.com	eazyPassword
5	Priya Patel	priya.patel@hotmail.com	eazyPassword
6	Miguel Rodriguez	miguel.rodriguez@gmail.com	eazyPassword
8	Kenji Suzuki	kenji.suzuki@hotmail.com	eazyPassword
9	Fatima Al-Mansoori	fatima.almansoori@gmail.com	eazyPassword
10	Darnell Washington	darnell.washington@outlook.com	eazyPassword
11	Aisha Nkosi	aisha.nkosi@hotmail.com	eazyPassword
12	Ravi Menon	ravi.menon@gmail.com	eazyPassword
13	Sofia Morales	sofia.morales@outlook.com	eazyPassword
14	Khaled Abadi	khaled.abadi@hotmail.com	eazyPassword
15	Aaliyah Rahman	aaliyah.rahman@gmail.com	eazyPassword
16	Juan Carlos Hernandez	juan.hernandez@outlook.com	eazyPassword
17	Zara Ali	zara.ali@hotmail.com	eazyPassword
18	Javier Castillo	javier.castillo@gmail.com	eazyPassword
19	Naomi Okafor	naomi.okafor@outlook.com	eazyPassword
20	Elijah Thompson	elijah.thompson@gmail.com	eazyPassword

SQL queries:

INSERT OPERATION:

in file: server/tables/GoalsTable.js

line: 94

```

async function insert(category, weight, din, userid) {
  return await withOracleDB(async (connection) => {
    const result = await connection.execute(
      `INSERT INTO Goals (category, weight, din, userid) VALUES (:category, :weight, :din, :userid)`,
      [category, weight, din, userid],
      { autoCommit: true }
    );

    return result.rowsAffected && result.rowsAffected > 0;
  }).catch(() => {
    return false;
  });
}

```

Before running the query:

The screenshot shows a web browser window with two tabs: "Fitness App" and "Database Application". The "Database Application" tab is active, displaying the URL "localhost:50003". Below the tabs is a toolbar with icons for Gmail, YouTube, and Maps. The main content area is titled "Custom Table" and contains a table with the following data:

GID	CATEGORY	WEIGHT	DIN	USERID
1	Weight Loss	100	2023-Dec-31	1
2	Fitness	45	2023-Jan-21	2
3	Weight Loss	80	2023-Feb-2	3
4	Muscle Gain	50	2023-Mar-18	4
5	Endurance	66	2023-Apr-3	5
6	Maintain Weight	60	2023-May-28	6
7	Toning	65	2023-Jun-20	7
8	Agility	49	2023-Jan-11	8
9	Bodybuilding	70	2023-Jul-21	9
10	Posture Improvement	58	2023-Mar-30	10
11	CrossFit	78	2023-Apr-12	11
12	Balance Training	67	2023-May-25	12
13	Rehabilitation	85	2023-Jan-13	13
14	Speed Training	56	2023-Jul-3	14
15	Functional Fitness	63	2023-Feb-15	15
16	Powerlifting	82	2023-Mar-17	16
17	Circuit Training	68	2023-Apr-21	17

CLICK

What triggers the query:

Clicking the add goal button in the GUI after filling out the information about the new goal

HOME PAGE

Create a New Goal

Category: Strength

Weight: 85

Date: 10-sep-2023

Submit

Your current goals!

Weight Loss
100
2023-Dec-31

Delete

After running the query:

Fitness App Database Application localhost:50003

Gmail YouTube Maps

Custom Table

Goals				
GID	CATEGORY	WEIGHT	DIN	USERID
1	Weight Loss	100	2023-Dec-31	1
2	Fitness	45	2023-Jan-21	2
3	Weight Loss	80	2023-Feb-2	3
4	Muscle Gain	50	2023-Mar-18	4
5	Endurance	66	2023-Apr-3	5
6	Maintain Weight	60	2023-May-28	6
7	Toning	65	2023-Jun-20	7
8	Agility	49	2023-Jan-11	8
9	Bodybuilding	70	2023-Jul-21	9
10	Posture Improvement	58	2023-Mar-30	10
11	CrossFit	78	2023-Apr-12	11
12	Balance Training	67	2023-May-25	12
13	Rehabilitation	85	2023-Jan-13	13
14	Speed Training	56	2023-Jul-3	14
15	Functional Fitness	63	2023-Feb-15	15
16	Powerlifting	82	2023-Mar-17	16
17	Circuit Training	68	2023-Apr-21	17
18	Strength	85	Sep 10, 2023	1

CLICK

Fitness App Database Application localhost:3000

Gmail YouTube Maps

Home Notifications Progress Content Plans Logout

HOME PAGE

Create a New Goal

Category:
Enter a category (e.g. Power lifting)

Weight:
Enter a number (e.g. 50)

Date:
Enter a date (e.g. 10-sep-2023)

Submit

Your current goals!

Weight Loss

100
2023-Dec-31

Delete

Strength

85
Sep 10, 2023

Delete

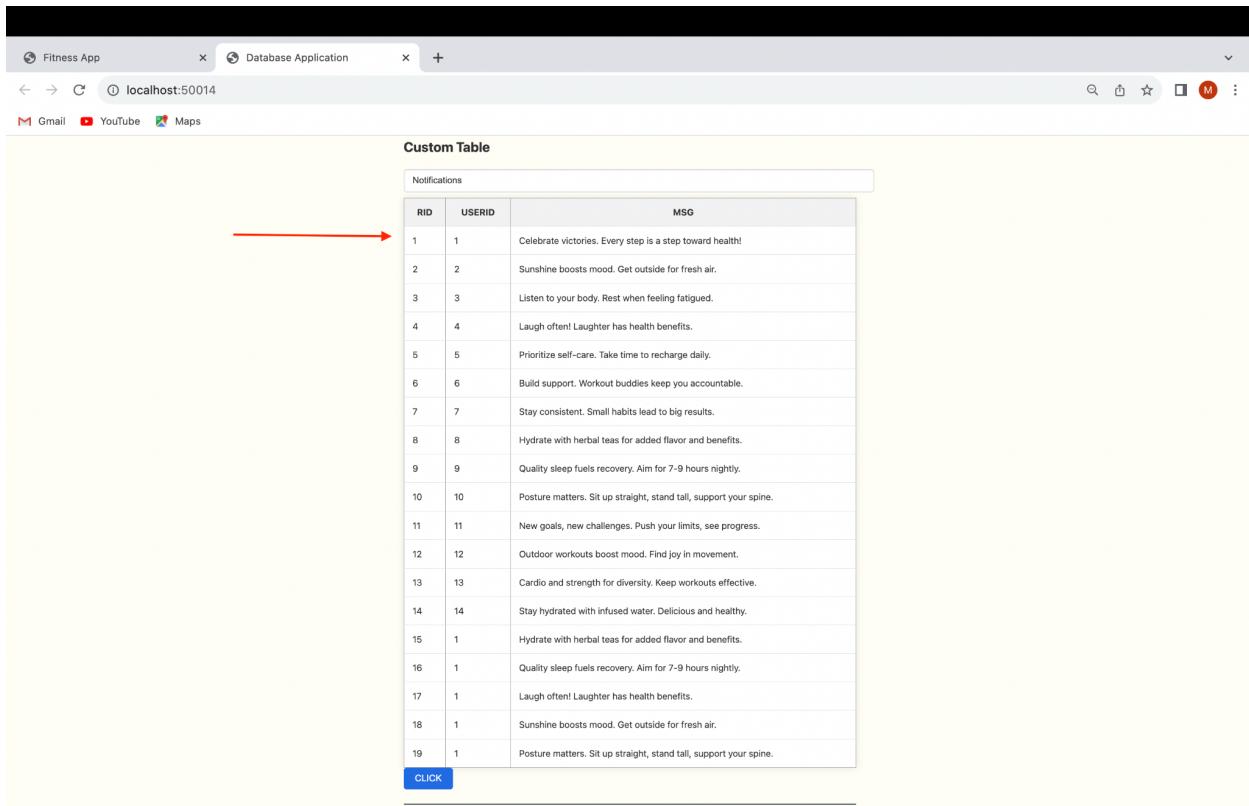
DELETE OPERATION:

in file: server/tables/NotificationsTable.js

line: 285

```
async function deleteNotification(rid) {
  return await withOracleDB(async (connection) => {
    await connection.execute(
      `DELETE FROM Notifications WHERE rid=:rid`,
      [rid],
      { autoCommit: true }
    );
    return true;
  }).catch(() => {
    return false;
  });
}
```

Before running the query:



The screenshot shows a web browser window with two tabs: 'Fitness App' and 'Database Application'. The 'Database Application' tab is active and displays a 'Custom Table' titled 'Notifications'. The table has three columns: RID, USERID, and MSG. The data rows are as follows:

RID	USERID	MSG
1	1	Celebrate victories. Every step is a step toward health!
2	2	Sunshine boosts mood. Get outside for fresh air.
3	3	Listen to your body. Rest when feeling fatigued.
4	4	Laugh often! Laughter has health benefits.
5	5	Prioritize self-care. Take time to recharge daily.
6	6	Build support. Workout buddies keep you accountable.
7	7	Stay consistent. Small habits lead to big results.
8	8	Hydrate with herbal teas for added flavor and benefits.
9	9	Quality sleep fuels recovery. Aim for 7-9 hours nightly.
10	10	Posture matters. Sit up straight, stand tall, support your spine.
11	11	New goals, new challenges. Push your limits, see progress.
12	12	Outdoor workouts boost mood. Find joy in movement.
13	13	Cardio and strength for diversity. Keep workouts effective.
14	14	Stay hydrated with infused water. Delicious and healthy.
15	1	Hydrate with herbal teas for added flavor and benefits.
16	1	Quality sleep fuels recovery. Aim for 7-9 hours nightly.
17	1	Laugh often! Laughter has health benefits.
18	1	Sunshine boosts mood. Get outside for fresh air.
19	1	Posture matters. Sit up straight, stand tall, support your spine.

A red arrow points to the first row of the table.

What triggers the query:

Clicking the delete button in the GUI deletes the notification

The screenshot shows a web browser window with two tabs: "Fitness App" and "Database Application". The main content area is titled "NOTIFICATIONS PAGE". It lists four notifications, each with a "Delete" button. A red arrow points to the "Delete" button of the first notification.

- Celebrate victories. Every step is a step toward health!**
Notification for: Ahmed Khan
Delete
- Hydrate with herbal teas for added flavor and benefits.**
Notification for: Ahmed Khan
Delete
- Quality sleep fuels recovery. Aim for 7-9 hours nightly.**
Notification for: Ahmed Khan
Delete
- Laugh often! Laughter has health benefits.**
Notification for: Ahmed Khan
Delete

After running the query:

Fitness App Database Application localhost:50014

Gmail YouTube Maps

Custom Table

Notifications

RID	USERID	MSG
2	2	Sunshine boosts mood. Get outside for fresh air.
3	3	Listen to your body. Rest when feeling fatigued.
4	4	Laugh often! Laughter has health benefits.
5	5	Prioritize self-care. Take time to recharge daily.
6	6	Build support. Workout buddies keep you accountable.
7	7	Stay consistent. Small habits lead to big results.
8	8	Hydrate with herbal teas for added flavor and benefits.
9	9	Quality sleep fuels recovery. Aim for 7-9 hours nightly.
10	10	Posture matters. Sit up straight, stand tall, support your spine.
11	11	New goals, new challenges. Push your limits, see progress.
12	12	Outdoor workouts boost mood. Find joy in movement.
13	13	Cardio and strength for diversity. Keep workouts effective.
14	14	Stay hydrated with infused water. Delicious and healthy.
15	1	Hydrate with herbal teas for added flavor and benefits.
16	1	Quality sleep fuels recovery. Aim for 7-9 hours nightly.
17	1	Laugh often! Laughter has health benefits.
18	1	Sunshine boosts mood. Get outside for fresh air.
19	1	Posture matters. Sit up straight, stand tall, support your spine.

CLICK

Fitness App Database Application localhost:3000/notifications

Gmail YouTube Maps

Home Notifications Progress Content Plans Logout

NOTIFICATIONS PAGE

Hydrate with herbal teas for added flavor and benefits.
Notification for: Ahmed Khan
Delete

Quality sleep fuels recovery. Aim for 7-9 hours nightly.
Notification for: Ahmed Khan
Delete

Laugh often! Laughter has health benefits.
Notification for: Ahmed Khan
Delete

Sunshine boosts mood. Get outside for fresh air.
Notification for: Ahmed Khan
Delete

Posture matters. Sit up straight, stand tall, support your spine.
Notification for: Ahmed Khan
Delete

UPDATE OPERATION:

in file: server/tables/ExercisePlanTable.js

line: 128

```
128  ↴  async function updatePlanType(epid, newPlanType) {  
129    ↴    return await withOracleDB(async (connection) => {  
130      ↴      const result = await connection.execute(  
131        `UPDATE ExercisePlan SET plantype = :plantype WHERE epid = :epid`,  
132        [newPlanType, epid],  
133        { autoCommit: true }  
134      );  
135  
136      ↴      return true;  
137    ↴    }).catch(() => {  
138      ↴      return false;  
139    });  
140  }
```

Before running the query:

Back

Client Information:

Ahmed Khan
ahmed.khan@gmail.com
Approx Location: 20040-010, Brazil

Client Exercise Plans:

NEW EXERCISE

Exercise Plan 1: Cardio

Delete

Edit

When running the query:

Edit Plan

Exercise Plan 1: Barbell Workout

Select Exercises:

Barbell Front Squat

Barbell Back Squat

Barbell Bench Press

Bulgarian Split Squats

Deadlifts

...

After running the query:

Client Information:

Ahmed Khan

ahmed.khan@gmail.com

Approx Location: 20040-010, Brazil

Client Exercise Plans:

NEW EXERCISE

Exercise Plan 1: Barbell Workout

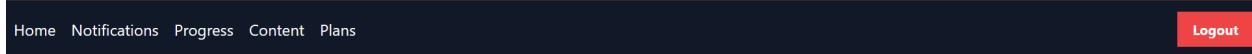
DeleteEdit

SELECTION OPERATION:

in file: server/tables/NotificationsTable.js
line: 267

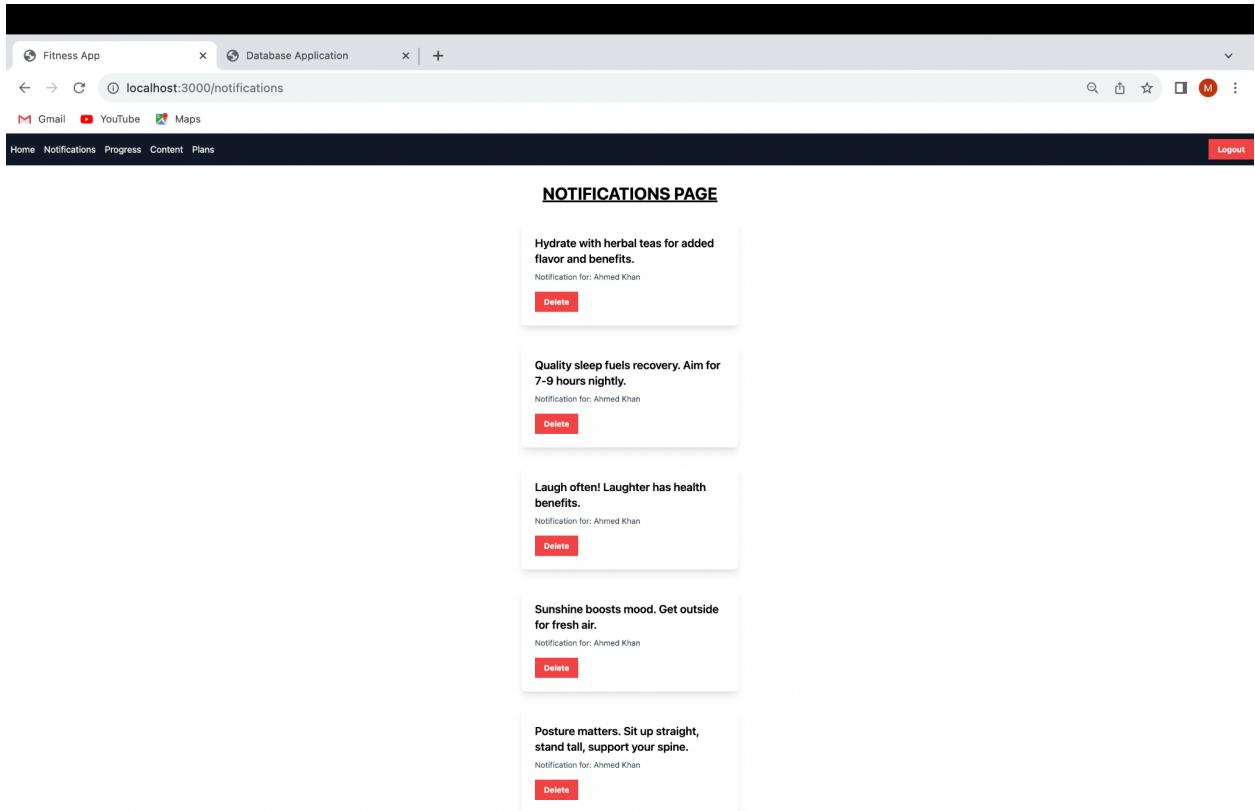
```
async function fetchUserNotifications(id) {
  return await withOracleDB(async (connection) => {
    const result = await connection.execute("SELECT * FROM Notifications WHERE userid = :id", [id]);
    return result.rows;
  });
}
```

Before running the query:



NOTIFICATIONS PAGE

After running the query:



PROJECTION OPERATION:

in file: server/tables/ContentTable.js

line: 102

```
100  async function fetch() {
101    return await withOracleDB(async (connection) => {
102      const result = await connection.execute("SELECT * FROM Content");
103      return result.rows;
104    }).catch(() => {
105      return [];
106    });
107  }
```

Before running the query:

CONTENT PAGE

After running the query:

CONTENT PAGE

British Heart Foundation

<https://www.youtube.com/watch?v=wWGuILAA0O0>

Science Animated

<https://www.youtube.com/watch?v=MoT-8b8szJl>

The Mike Hansen Show

<https://www.youtube.com/watch?v=4WV7kAUGrgl>

Braive

<https://www.youtube.com/watch?v=Wto7zISB2d0>

NationwideChildrens

<https://www.youtube.com/watch?v=tWYFnndoPVL8>

Meghan Livingstone

<https://www.youtube.com/watch?v=5znuV7lyrzs>

Pick Up Limes

<https://www.youtube.com/watch?v=XulBKrrRC3k>

Johns Hopkins Medicine

<https://www.youtube.com/watch?v=zJgHbfIx-Q>

Med Today

<https://www.youtube.com/watch?v=zdjWnvbaUZo>

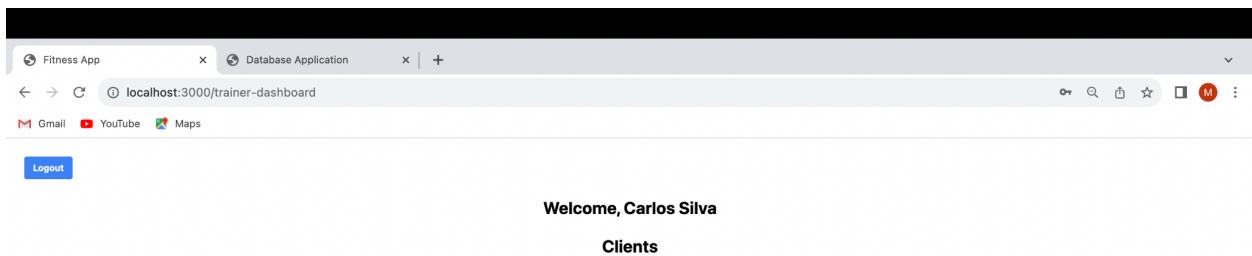
JOIN OPERATION:

In file: server/tables/UsersTable.js

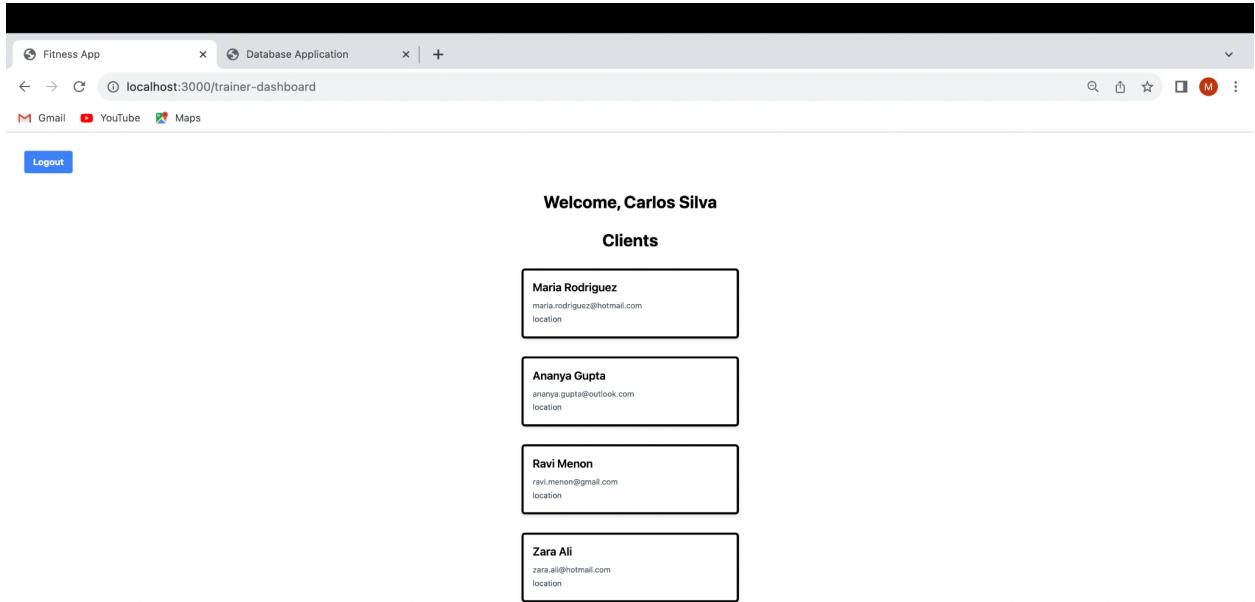
Line: 136

```
async function fetchUsersWithTrainer(tid) {
  return await withOracleDB(async (connection) => {
    const result = await connection.execute(`SELECT f.userid, f.name, f.email FROM FUser f
      INNER JOIN PaidUser p ON f.userid = p.userid
      INNER JOIN Trainer t ON t.tid = p.tid AND t.tid = ${tid}
    `);
    return result.rows;
  }).catch(() => {
    return [];
  });
}
```

Before running the query:



After running the query:



AGGREGATION With GROUP BY, AGGREGATION With HAVING and NESTED AGGREGATION With GROUP BY OPERATION:

In file: server/tables/UsersTable.js

Line: 37

```
async function getBestTrainer() {
  return await withOracleDB(async (connection) => {
    const result = await connection.execute(`SELECT tid, COUNT(*) AS c
      FROM PaidUser1
      GROUP BY tid
      HAVING COUNT(*) = (
        SELECT MIN(c2)
        FROM (
          SELECT COUNT(*) AS c2
          FROM PaidUser1
          GROUP BY tid
        )
      )
    `);
  try {
```

Before running the query:

Welcome, Yuki Tanaka

Clients

Ahmed Khan

ahmed.khan@gmail.com

location

Priya Patel

priya.patel@hotmail.com

location

Fatima Al-Mansoori

fatima.almansoori@gmail.com

location

Sofia Morales

sofia.morales@outlook.com

location

Zara Ali

zara.ali@hotmail.com

location

What triggers the query:

Whenever a new paid user registers, the best trainer is found for them and matched with them

REGISTER

New User
newemail@mail.com
.....
city
country
123 455

Free User?

REGISTER

Click [Here](#) To Login!

After running the query:

Welcome, Yuki Tanaka

Clients

New User

newemail@mail.com
location

Ahmed Khan

ahmed.khan@gmail.com
location

Priya Patel

priya.patel@hotmail.com
location

Fatima Al-Mansoori

fatima.almansoori@gmail.com
location

Sofia Morales

sofia.morales@outlook.com
location

Zara Ali

zara.ali@hotmail.com
location