MyFit Tracker – Workout Tracking Application

ITMD510 – Object Oriented Application Development

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ABSTRACT

In the world of fitness tracking applications, ease of use and practicality is crucial. The JavaFX-based Fitness Tracker Application focuses on a simplified client-view and admin functionalities. The application includes functionalities for both user and admin, providing user-friendly interfaces for workout management and progress tracking, as well as administrative tasks such as workout management, account deletion, and password reset.

Client Functionality:
Client-view provides access to users to manage their workouts and track progress. Users can add workouts based on predefined difficulty levels, enabling quick customization of exercise routines. Also, users can update their progress, monitor their fitness journey, and make informed adjustments to their workout plans.

Admin Functionality:
Admins have access to enhanced functionalities such as managing user data and monitor/update workouts. The admin interface allows administrators to view users' progress, providing insights into their fitness activities and performance. Admins can update or delete existing workouts, ensuring that the application's exercise database remains relevant and up to date.

Moreover, administrators can manage user accounts such as deleting existing accounts and reset passwords for existing users demonstrating the update functionality in Admin View.

Conclusion:
The application offers a simple UI for fitness tracking. With further optimization, we can deliver a seamless and rewarding experience for both users and administrators, promoting health and wellness in the digital age.

User Information and Application Workflow Description

Admin and User Credentials:

```
31 •    SELECT * FROM 510fp.sv_users;
```

Result Grid | Filter Rows:

	userid	username	password	role
▶	1	user		user
	2	admin	ash3549	admin
	6	sumanthvuppu	ash3549	admin
*	NULL	NULL	NULL	NULL

Application Initial Workflow Description:

Application begins with the Main class which has Login View. Upon giving the inputs for username and password, credentials are authenticated and if the role is user “ClientView” is opened else “Admin View” is opened.

3. Tables from DB:

3.1. User Table:

```
31 •  SELECT * FROM 510fp.sv_users;
```

Result Grid | Filter Rows:

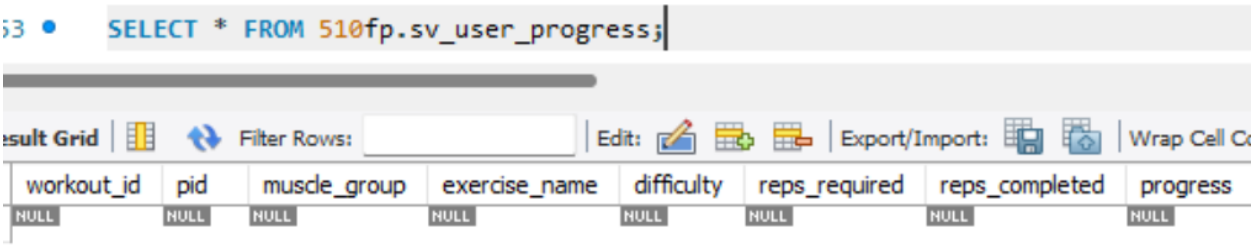
userid	username	password	role
1	user		user
2	admin	ash3549	admin
6	sumanthvuppu	ash3549	admin
NULL	NULL	NULL	NULL

3.2 Workouts Table:

Result Grid | Filter Rows: | Edit:

pid	muscle_group	Exercise	Difficulty	Reps
1	Chest	Bench Press (Flat)	Easy	8
2	Chest	Bench Press (Flat)	Medium	10
3	Chest	Bench Press (Flat)	Hard	12
4	Chest	Dumbbell Flyes	Easy	10
5	Chest	Dumbbell Flyes	Medium	12
6	Chest	Dumbbell Flyes	Hard	15
7	Back	Pull-ups/Chin-ups	Easy	6
8	Back	Pull-ups/Chin-ups	Medium	8
9	Back	Pull-ups/Chin-ups	Hard	10
10	Back	Barbell Rows	Easy	8
11	Back	Barbell Rows	Medium	10
12	Back	Barbell Rows	Hard	12
13	Shoulders	Military Press (Ba...	Easy	8
14	Shoulders	Military Press (Ba...	Medium	10
15	Shoulders	Military Press (Ba...	Hard	12
16	Shoulders	Lateral Raises	Easy	10

3.3 User Progress Table:

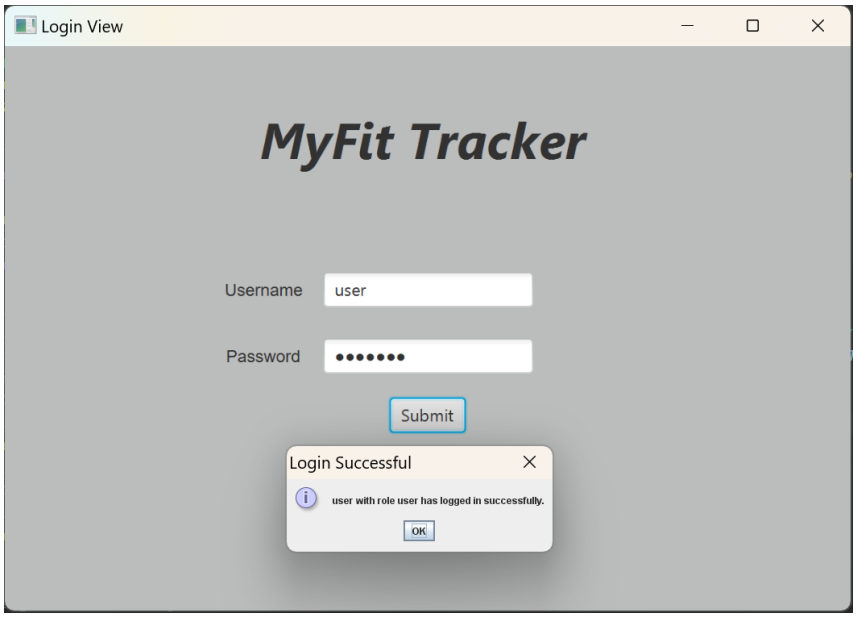


pid is the foreign key reference from sv_workouts table.

Rows for sv_user_progress will be added during runtime.

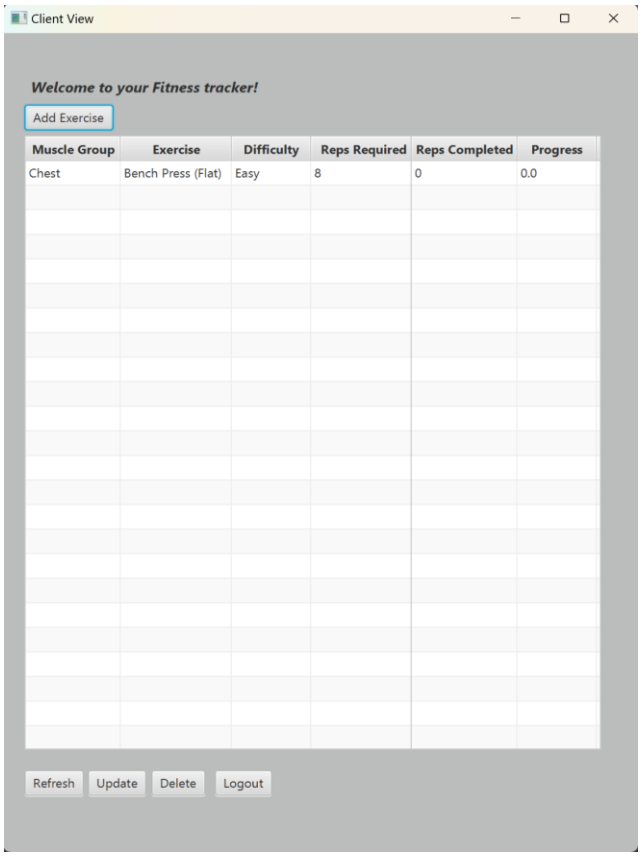
Screenshots from Application

4.1. Login View: Successful login of regular user



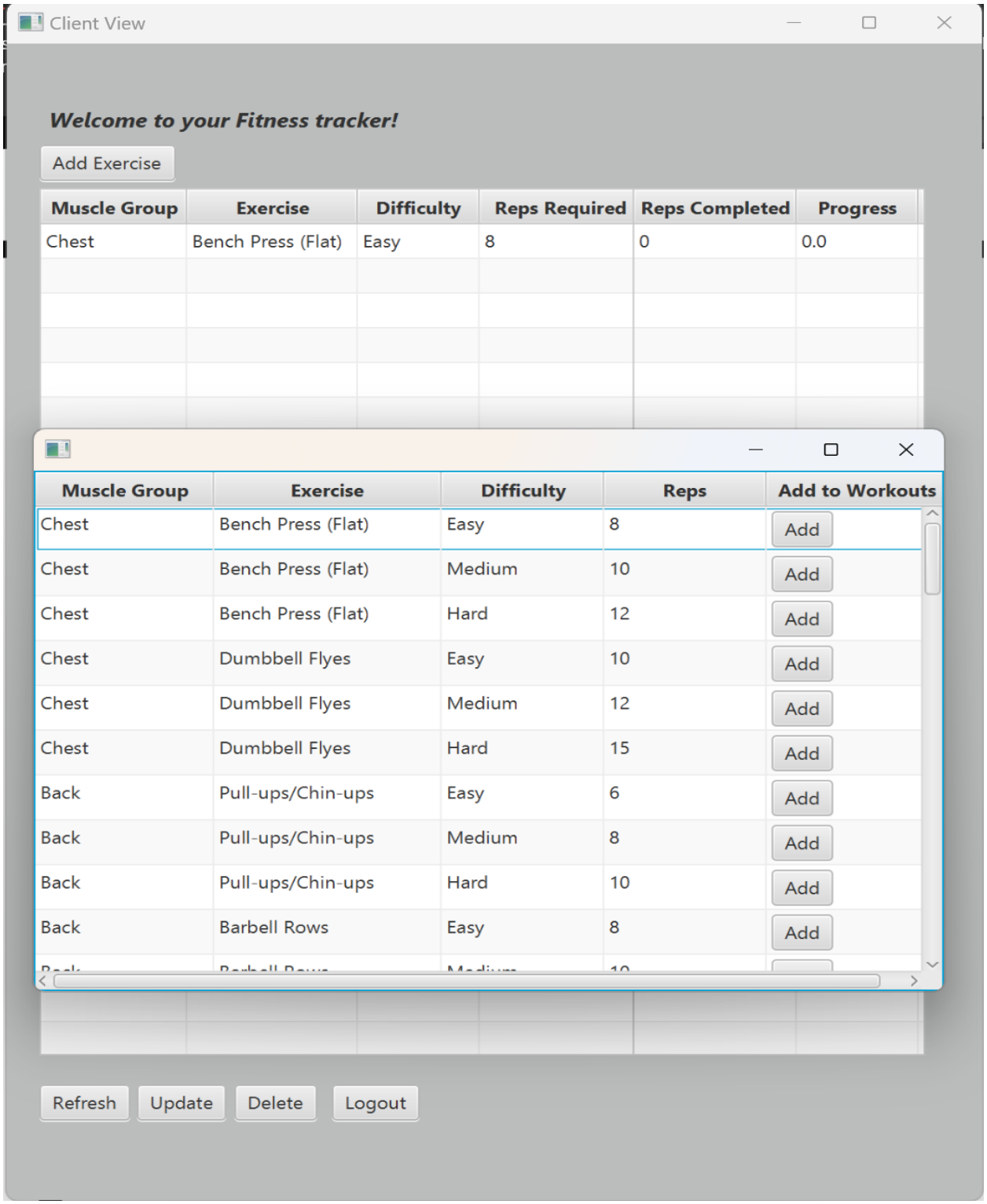
4.2.User View: Add 10 rows to DB.

Step1: Before adding any rows:

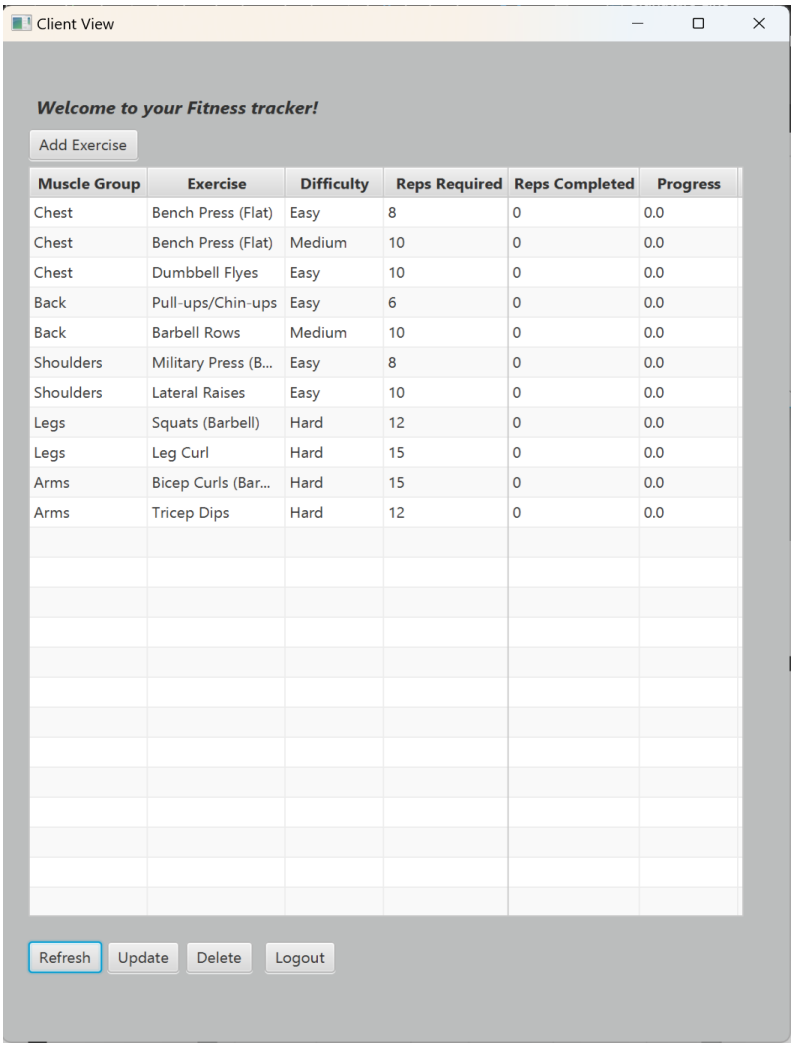


Step2: Click on Add Exercise

A new window will open displaying all existing workouts from DB. Click on Add button to add exercise to User Progress table.



Step 3: 10 rows added successfully.



Muscle Group	Exercise	Difficulty	Reps Required	Reps Completed	Progress
Chest	Bench Press (Flat)	Easy	8	0	0.0
Chest	Bench Press (Flat)	Medium	10	0	0.0
Chest	Dumbbell Flyes	Easy	10	0	0.0
Back	Pull-ups/Chin-ups	Easy	6	0	0.0
Back	Barbell Rows	Medium	10	0	0.0
Shoulders	Military Press (B...	Easy	8	0	0.0
Shoulders	Lateral Raises	Easy	10	0	0.0
Legs	Squats (Barbell)	Hard	12	0	0.0
Legs	Leg Curl	Hard	15	0	0.0
Arms	Bicep Curls (Bar...	Hard	15	0	0.0
Arms	Tricep Dips	Hard	12	0	0.0

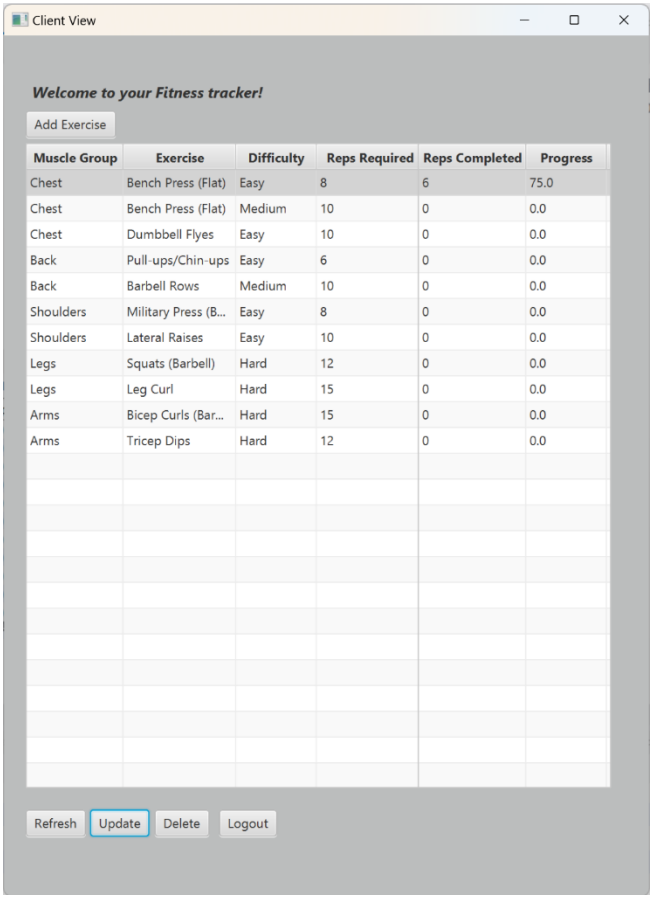
Rows reflected in DB:

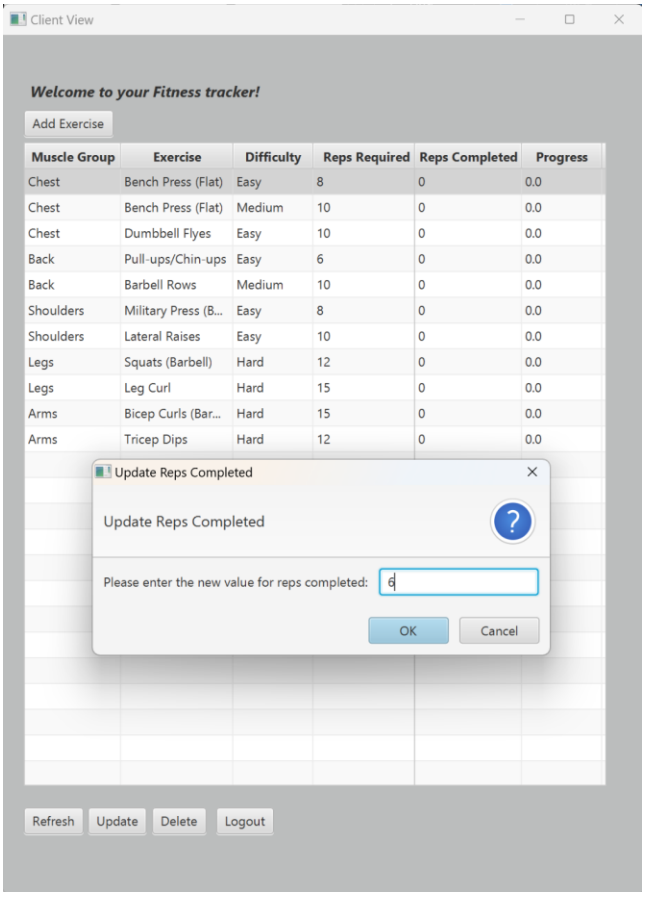
```
57 •  SELECT * FROM 510fp.sv_user_progress;
58
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed	progress
1	1	Chest	Bench Press (Flat)	Easy	8	0	0
2	2	Chest	Bench Press (Flat)	Medium	10	0	0
3	4	Chest	Dumbbell Flyes	Easy	10	0	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0	0
5	11	Back	Barbell Rows	Medium	10	0	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0	0
7	16	Shoulders	Lateral Raises	Easy	10	0	0
8	21	Legs	Squats (Barbell)	Hard	12	0	0
9	24	Legs	Leg Curl	Hard	15	0	0
10	27	Arms	Bicep Curls (Barbell)	Hard	15	0	0
11	30	Arms	Tricep Dips	Hard	12	0	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Step 4: Update progress for workouts:





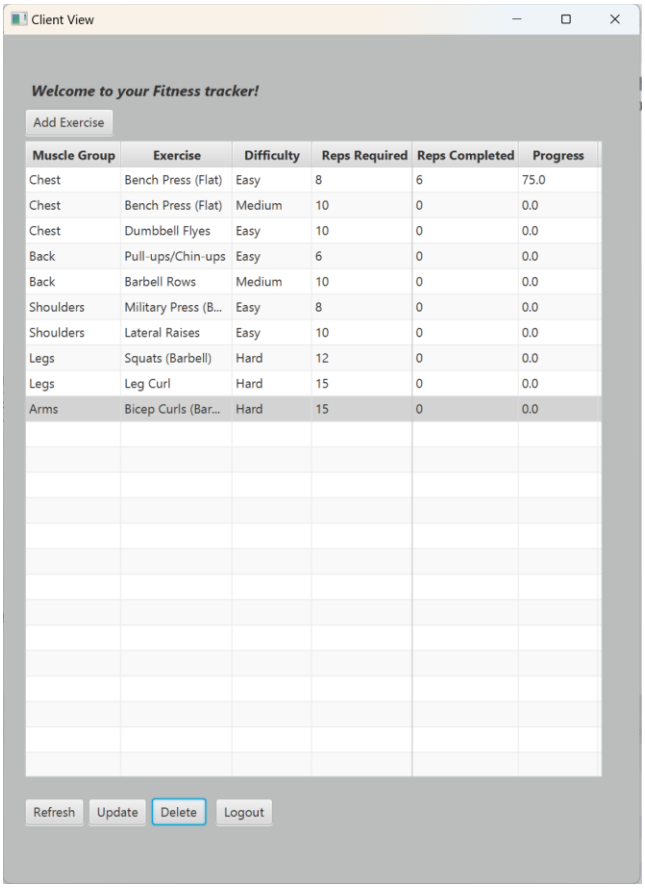
Rows reflected in DB:

```
7 •  SELECT * FROM 510fp.sv_user_progress;
```

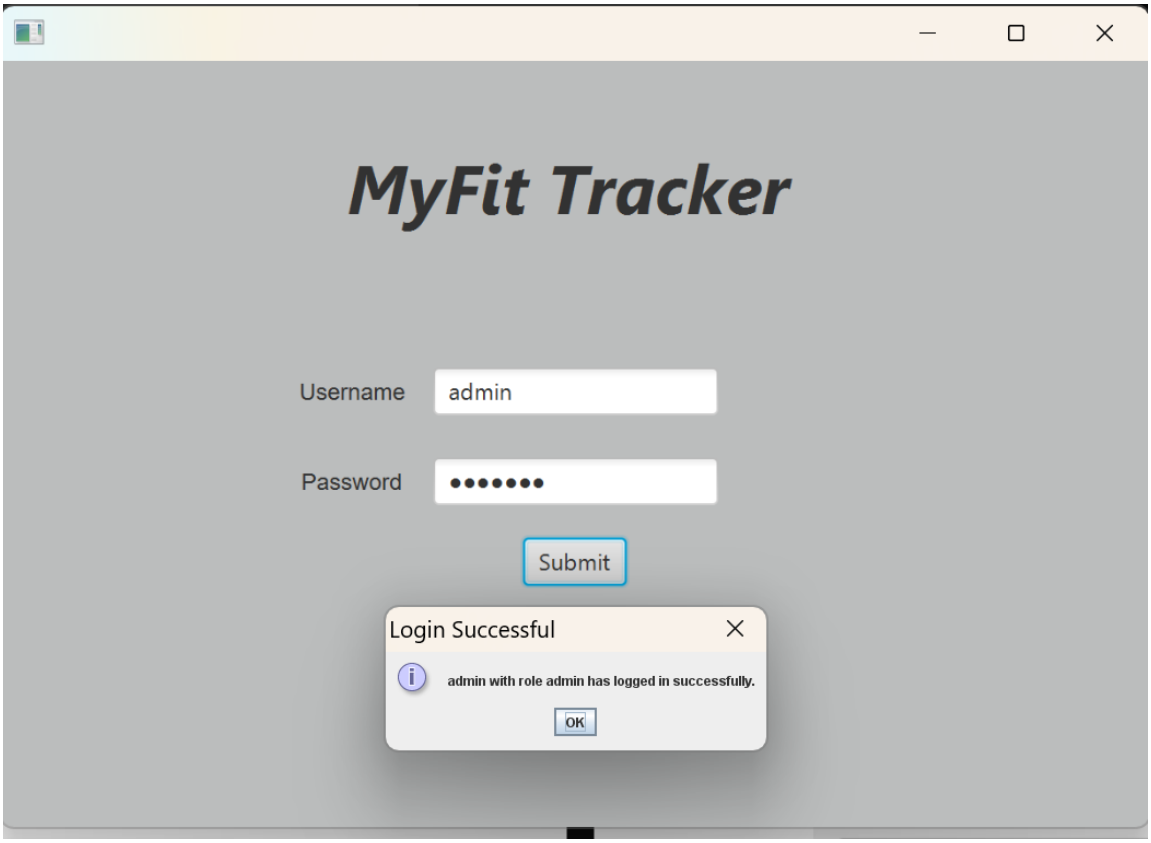
sult Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed	progress
1	1	Chest	Bench Press (Flat)	Easy	8	6	75
2	2	Chest	Bench Press (Flat)	Medium	10	0	0
3	4	Chest	Dumbbell Flyes	Easy	10	0	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0	0
5	11	Back	Barbell Rows	Medium	10	0	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0	0
7	16	Shoulders	Lateral Raises	Easy	10	0	0
8	21	Legs	Squats (Barbell)	Hard	12	0	0
9	24	Legs	Leg Curl	Hard	15	0	0
10	27	Arms	Bicep Curls (Barbell)	Hard	15	0	0
11	30	Arms	Tricep Dips	Hard	12	0	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

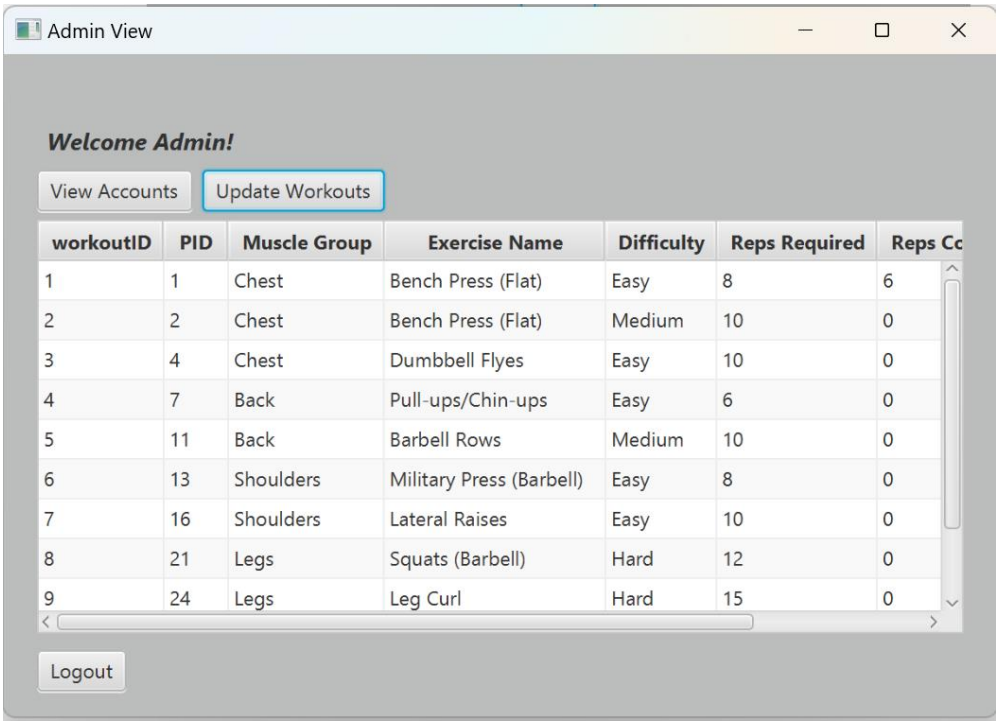
Step 5: Delete last record from User progress table and DB:



4.3.Admin View: Successful login of admin.



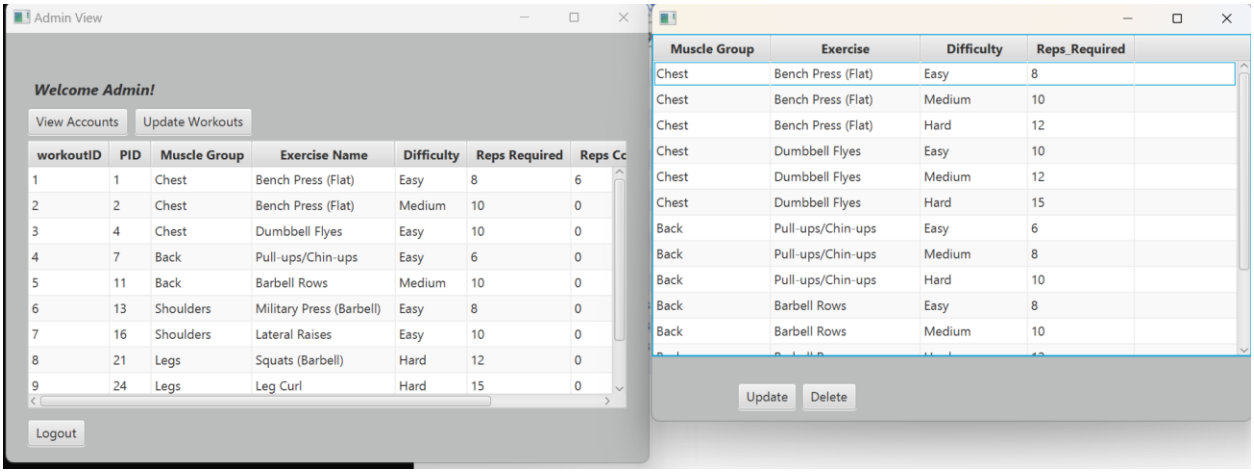
AdminView: The table shows the progress of users' workouts.



4.4.Admin View: Update first record from DB.

Step1: List of existing workouts before updating records.

Upon clicking Update Workouts button on Admin Main View, we get a new window with table of existing workouts.



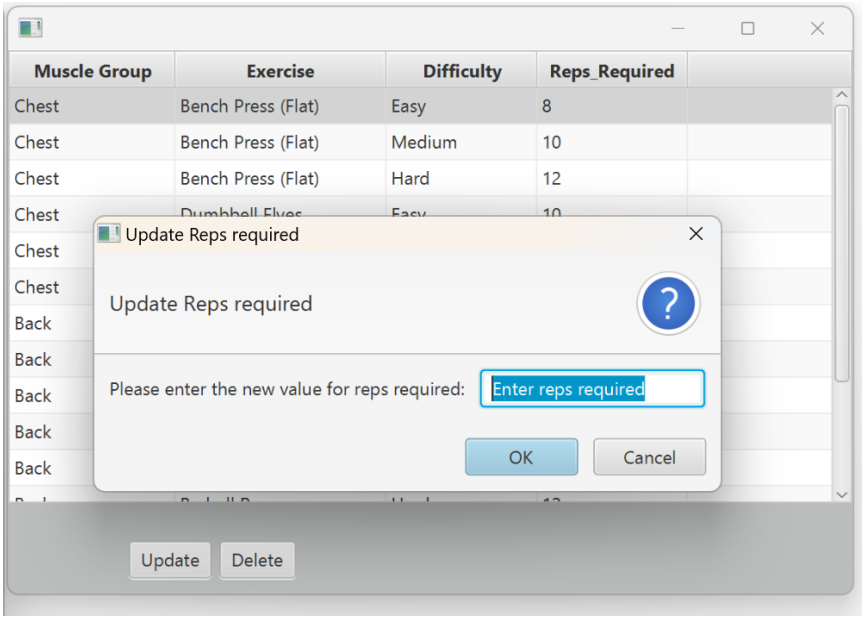
From DB:

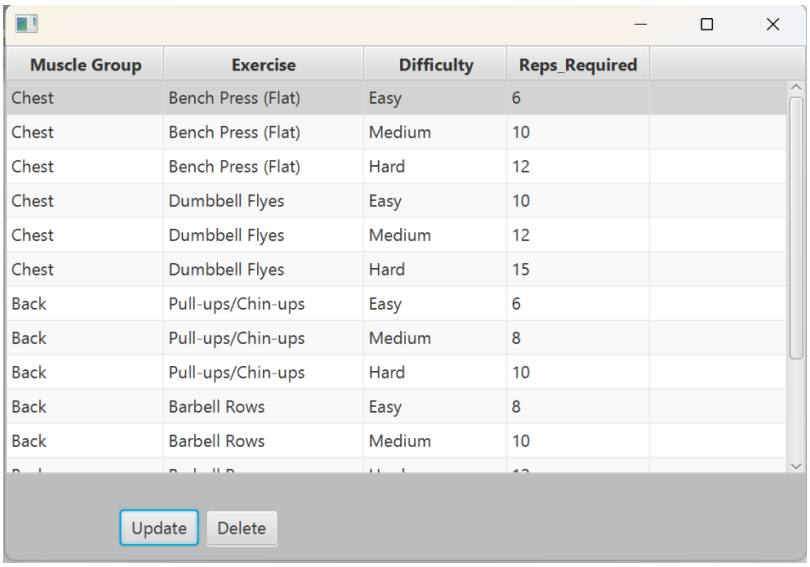
```
59 •    SELECT * FROM 510fp.sv_workouts;
```

Result Grid | Filter Rows: | Edit:

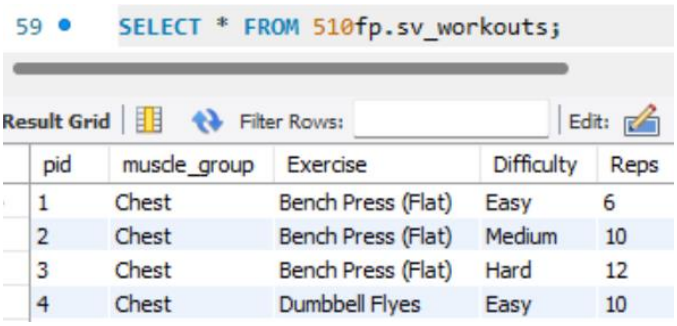
pid	muscle_group	Exercise	Difficulty	Reps
1	Chest	Bench Press (Flat)	Easy	8
2	Chest	Bench Press (Flat)	Medium	10
3	Chest	Bench Press (Flat)	Hard	12
4	Chest	Dumbbell Flyes	Easy	10
5	Chest	Dumbbell Flyes	Medium	12
6	Chest	Dumbbell Flyes	Hard	15
7	Back	Pull-ups/Chin-ups	Easy	6
8	Back	Pull-ups/Chin-ups	Medium	8
9	Back	Pull-ups/Chin-ups	Hard	10
10	Back	Barbell Rows	Easy	8
11	Back	Barbell Rows	Medium	10
12	Back	Barbell Rows	Hard	12
13	Shoulders	Military Press (Ba...	Easy	8
14	Shoulders	Military Press (Ba...	Medium	10
15	Shoulders	Military Press (Ba...	Hard	12
NULL	NULL	NULL	NULL	NULL

Step2: Update the first row by selecting it and click on the update button.





Updated row reflected in workouts table:



Updated row reflected user_progress table:

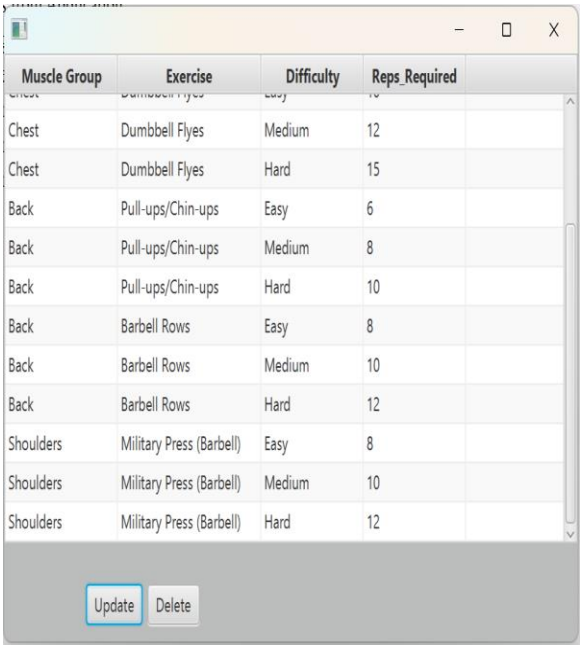
```
57 •  SELECT * FROM 510fp.sv_user_progress;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap

workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed
1	1	Chest	Bench Press (Flat)	Easy	6	6
2	2	Chest	Bench Press (Flat)	Medium	10	0
3	4	Chest	Dumbbell Flyes	Easy	10	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0
5	11	Back	Barbell Rows	Medium	10	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

4.5.Admin View: Delete last record from DB.

Step1: Displaying last record of workouts table from DB.




```
59 •  SELECT * FROM 510fp.sv_workouts;
```

Result Grid | Filter Rows: | Edit:

pid	muscle_group	Exercise	Difficulty	Reps
1	Chest	Bench Press (Flat)	Easy	6
2	Chest	Bench Press (Flat)	Medium	10
3	Chest	Bench Press (Flat)	Hard	12
4	Chest	Dumbbell Flyes	Easy	10
5	Chest	Dumbbell Flyes	Medium	12
6	Chest	Dumbbell Flyes	Hard	15
7	Back	Pull-ups/Chin-ups	Easy	6
8	Back	Pull-ups/Chin-ups	Medium	8
9	Back	Pull-ups/Chin-ups	Hard	10
10	Back	Barbell Rows	Easy	8
11	Back	Barbell Rows	Medium	10
12	Back	Barbell Rows	Hard	12
13	Shoulders	Military Press (Ba...	Easy	8
14	Shoulders	Military Press (Ba...	Medium	10
15	Shoulders	Military Press (Ba...	Hard	12
NULL	NULL	NULL	NULL	NULL

This row is also present in user_progress table:

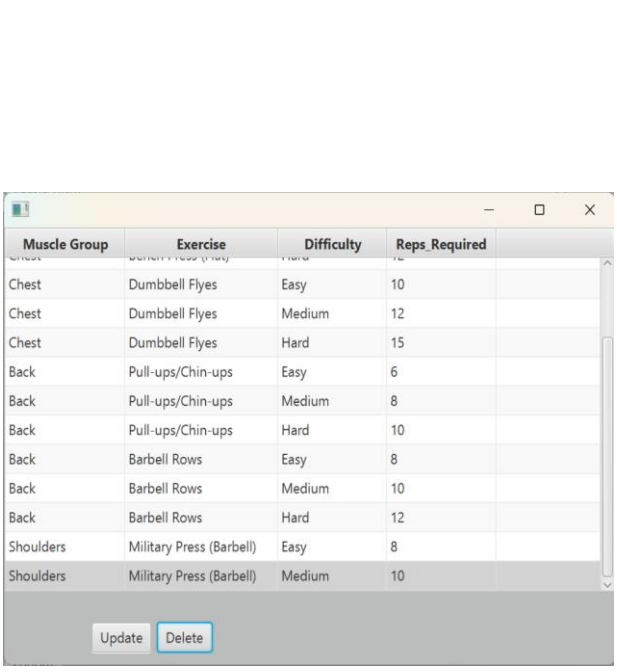
```
57 •  SELECT * FROM 510fp.sv_user_progress;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap

workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed
1	1	Chest	Bench Press (Flat)	Easy	6	6
2	2	Chest	Bench Press (Flat)	Medium	10	0
3	4	Chest	Dumbbell Flyes	Easy	10	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0
5	11	Back	Barbell Rows	Medium	10	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0
12	15	Shoulders	Military Press (Barbell)	Hard	12	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

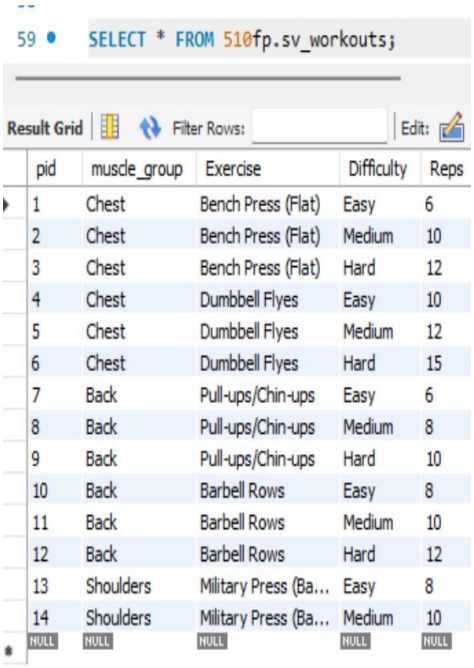
Step2: Select the last row and click on Delete to remove the record.

Record deleted from workouts table:



Muscle Group	Exercise	Difficulty	Reps_Required
Chest	Dumbbell Flyes	Easy	10
Chest	Dumbbell Flyes	Medium	12
Chest	Dumbbell Flyes	Hard	15
Back	Pull-ups/Chin-ups	Easy	6
Back	Pull-ups/Chin-ups	Medium	8
Back	Pull-ups/Chin-ups	Hard	10
Back	Barbell Rows	Easy	8
Back	Barbell Rows	Medium	10
Back	Barbell Rows	Hard	12
Shoulders	Military Press (Barbell)	Easy	8
Shoulders	Military Press (Barbell)	Medium	10

Update Delete

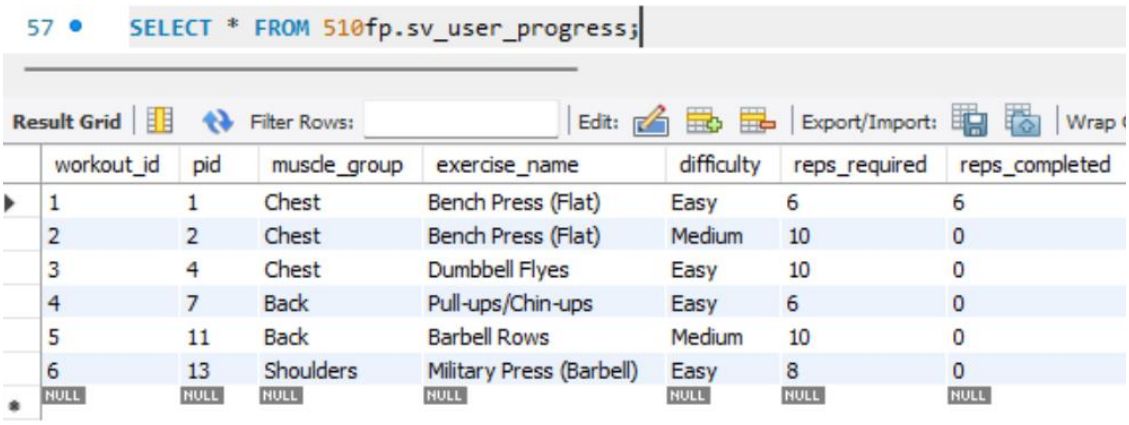


```
59 • SELECT * FROM 510fp.sv_workouts;
```

Result Grid | Filter Rows: | Edit:

pid	muscle_group	Exercise	Difficulty	Reps
1	Chest	Bench Press (Flat)	Easy	6
2	Chest	Bench Press (Flat)	Medium	10
3	Chest	Bench Press (Flat)	Hard	12
4	Chest	Dumbbell Flyes	Easy	10
5	Chest	Dumbbell Flyes	Medium	12
6	Chest	Dumbbell Flyes	Hard	15
7	Back	Pull-ups/Chin-ups	Easy	6
8	Back	Pull-ups/Chin-ups	Medium	8
9	Back	Pull-ups/Chin-ups	Hard	10
10	Back	Barbell Rows	Easy	8
11	Back	Barbell Rows	Medium	10
12	Back	Barbell Rows	Hard	12
13	Shoulders	Military Press (Ba...	Easy	8
14	Shoulders	Military Press (Ba...	Medium	10
NULL	NULL	NULL	NULL	NULL

Record deleted from user_progress table:



```
57 • SELECT * FROM 510fp.sv_user_progress;
```

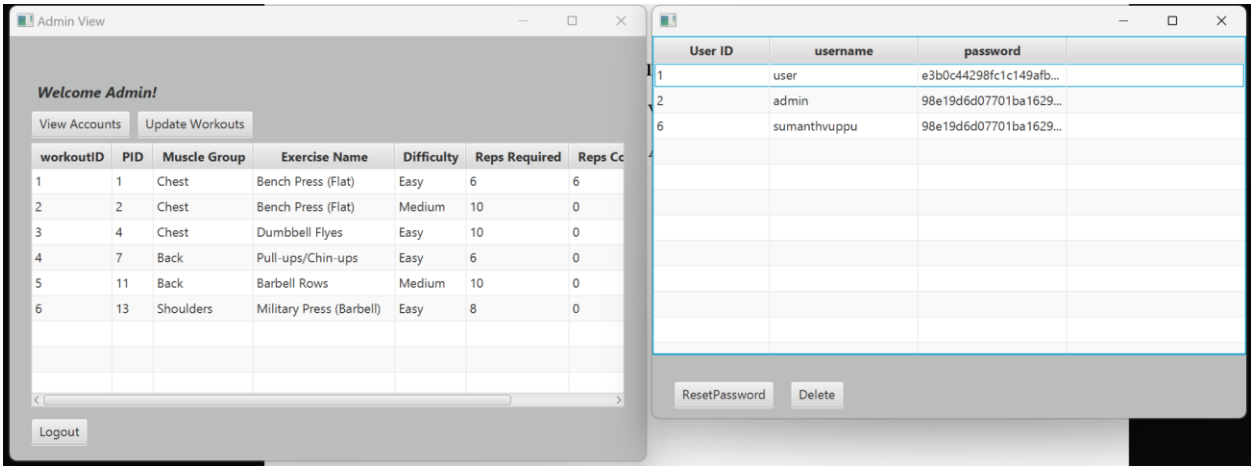
Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap

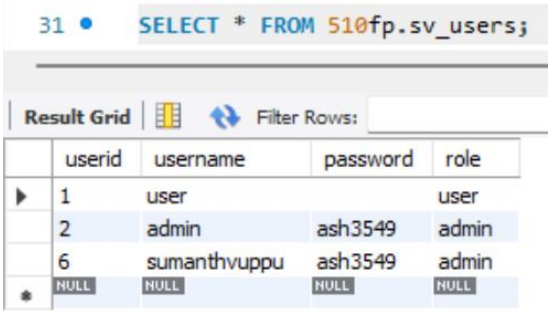
workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed
1	1	Chest	Bench Press (Flat)	Easy	6	6
2	2	Chest	Bench Press (Flat)	Medium	10	0
3	4	Chest	Dumbbell Flyes	Easy	10	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0
5	11	Back	Barbell Rows	Medium	10	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

4.6. Admin View: Reset Password for all accounts.

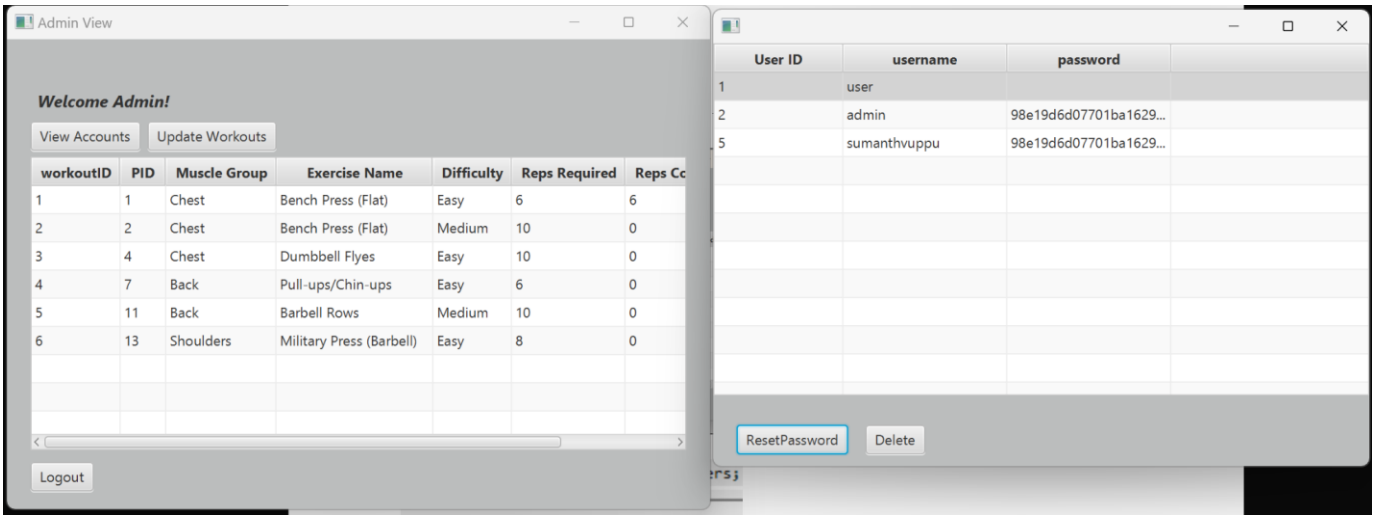
Step1: Display users table by clicking on View Accounts:

Note: Hashed passwords are displayed in Admin View.





Step2: Reset Password for first row from user table:



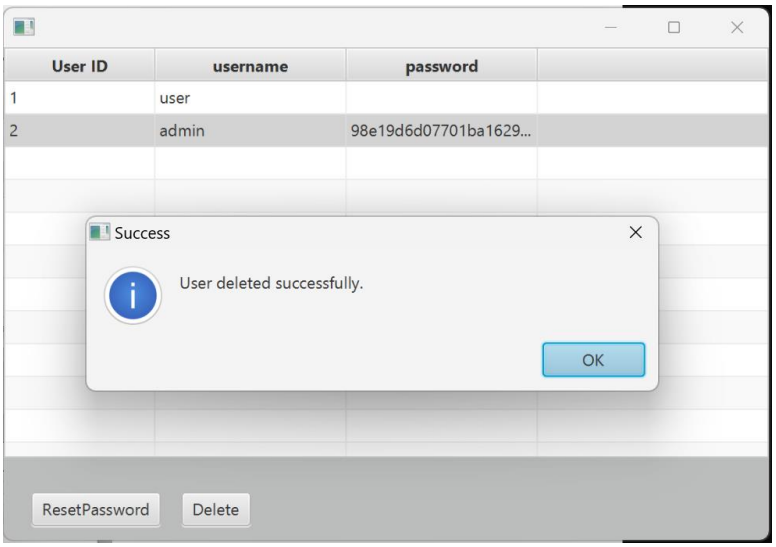
```
31 •  SELECT * FROM 510fp.sv_users;
```

Result Grid | Filter Rows:

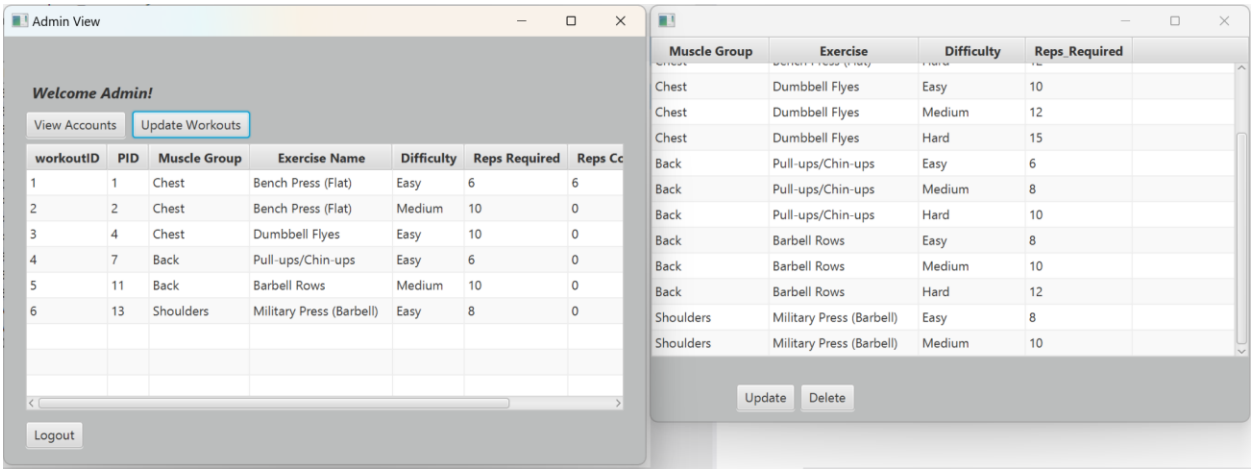
userid	username	password	role
1	user		user
2	admin	ash3549	admin
6	sumanthvuppu	ash3549	admin
NULL	NULL	NULL	NULL

4.7. AdminView: Delete last user from View Accounts:

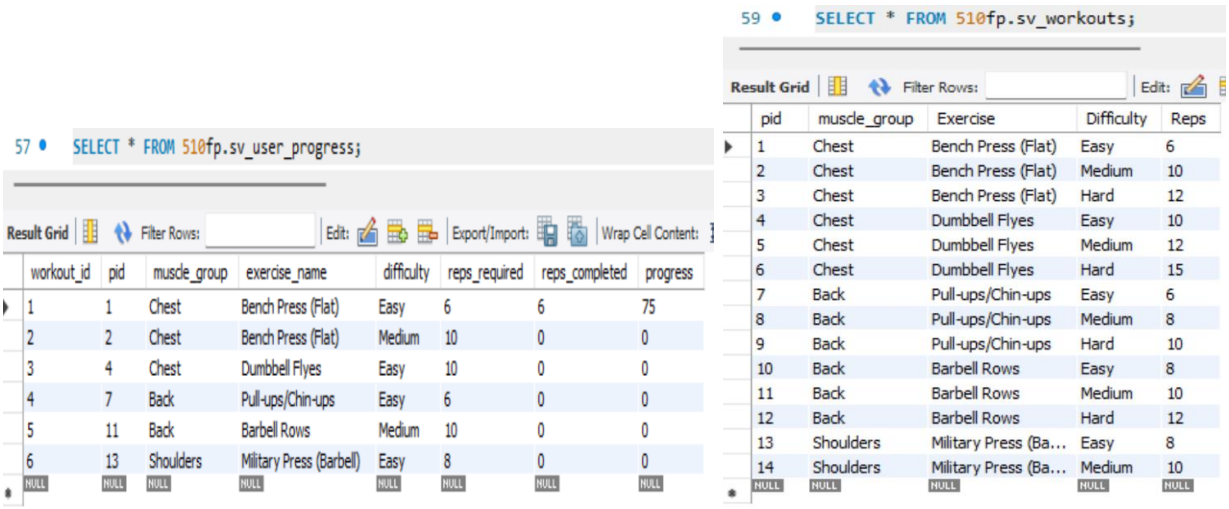
Step1: From the above users table, we select last row and delete the user.



4.8. All remaining records from admin view:



Cross-check from DB:



```
57 • SELECT * FROM 510fp.sv_user_progress;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

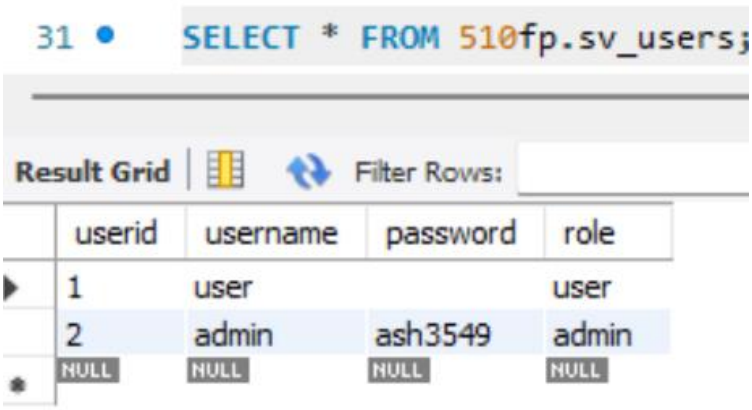
workout_id	pid	muscle_group	exercise_name	difficulty	reps_required	reps_completed	progress
1	1	Chest	Bench Press (Flat)	Easy	6	6	75
2	2	Chest	Bench Press (Flat)	Medium	10	0	0
3	4	Chest	Dumbbell Flyes	Easy	10	0	0
4	7	Back	Pull-ups/Chin-ups	Easy	6	0	0
5	11	Back	Barbell Rows	Medium	10	0	0
6	13	Shoulders	Military Press (Barbell)	Easy	8	0	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
59 • SELECT * FROM 510fp.sv_workouts;
```

Result Grid | Filter Rows: | Edit:

pid	muscle_group	Exercise	Difficulty	Reps
1	Chest	Bench Press (Flat)	Easy	6
2	Chest	Bench Press (Flat)	Medium	10
3	Chest	Bench Press (Flat)	Hard	12
4	Chest	Dumbbell Flyes	Easy	10
5	Chest	Dumbbell Flyes	Medium	12
6	Chest	Dumbbell Flyes	Hard	15
7	Back	Pull-ups/Chin-ups	Easy	6
8	Back	Pull-ups/Chin-ups	Medium	8
9	Back	Pull-ups/Chin-ups	Hard	10
10	Back	Barbell Rows	Easy	8
11	Back	Barbell Rows	Medium	10
12	Back	Barbell Rows	Hard	12
13	Shoulders	Military Press (Ba...	Easy	8
14	Shoulders	Military Press (Ba...	Medium	10
NULL	NULL	NULL	NULL	NULL

4.9. End user table: As we reset the password for user in Step 4.6, the password field is empty.



```
31 • SELECT * FROM 510fp.sv_users;
```

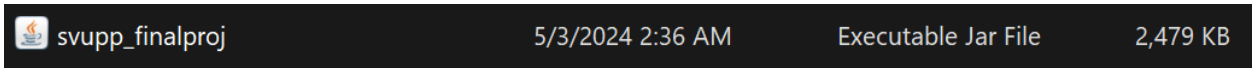
Result Grid | Filter Rows:

userid	username	password	role
1	user		user
2	admin	ash3549	admin
NULL	NULL	NULL	NULL

Extra Credit

5.1. Creating a working .jar File:

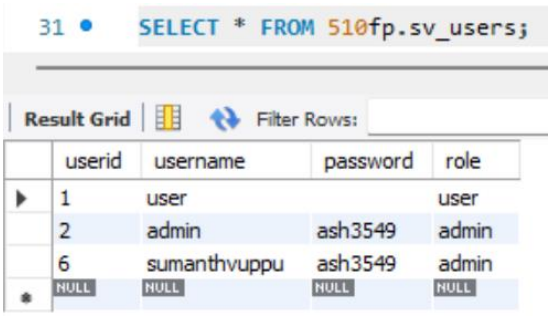
As per the given instructions, the application has been exported with the Main class as starting point of the execution.



The file can be found along with the zip file of the project.

5.2. Displaying hashed passwords in admin view:

Original table from DB:



Hashed Passwords displayed in admin view: