

# **FitMatrix**

## **FINAL REPORT**

by

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## Introduction

FitMatrix is a workout tracking app which users can effortlessly log workouts, monitor progress, and achieve their fitness goals/

## Technology Used

- Google Firebase - Used to manage user login and registration and also storing work out details
- API Ninjas Exercise API – This API is used in the Learn Page of the application, the API returns workouts and how to perform them based on selected muscle group.
- Workout API by Vercel – This API returns a random list of workouts. Used in Home Page for Daily Challenges.

## Credentials for Test User

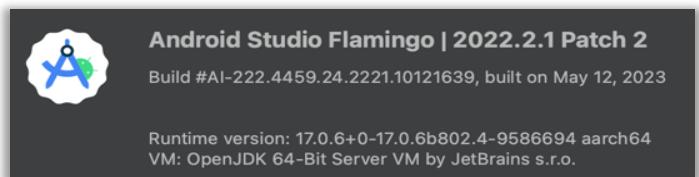
Username : [test@gmail.com](mailto:test@gmail.com)

Password : test1234

Click cancel if the registration page appears and login using the above credentials.

## Device Details

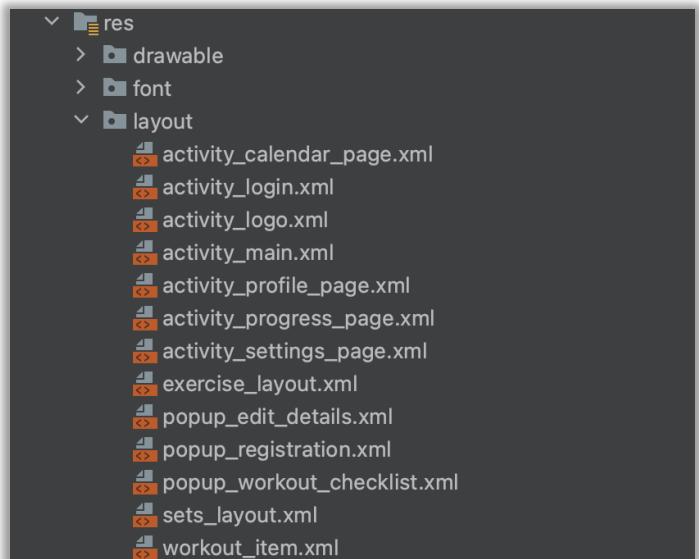
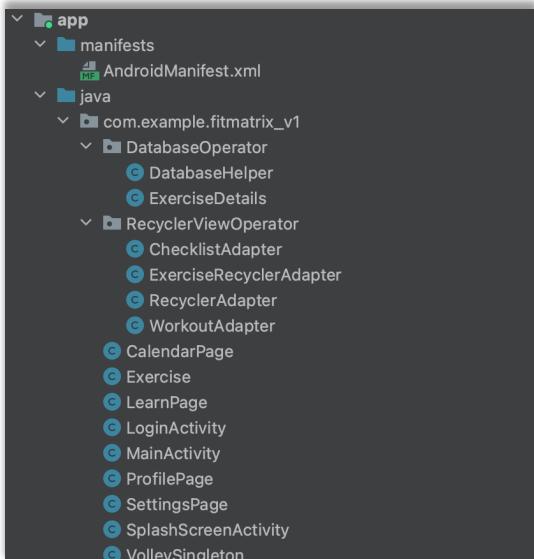
- API Level : 31
- Android Version : 12
- Device Name: Google Pixel XL



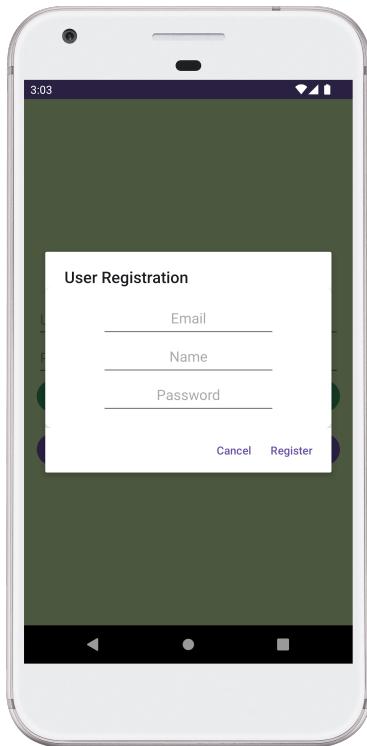
## IDE Details

- Version: Flamingo

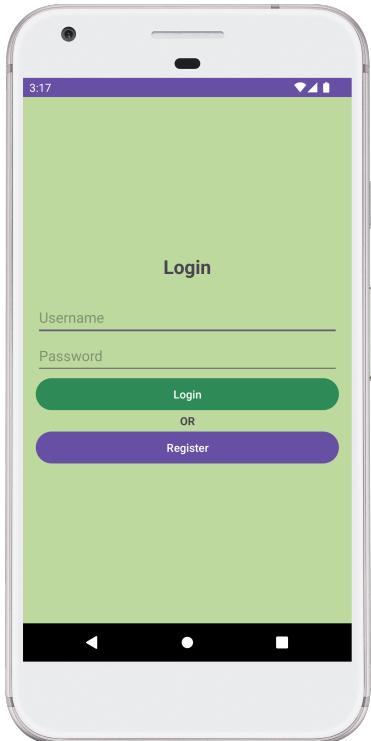
## Project Structure



When the users opens app for the very first time they have to go through the registration process.



**Login Page**



This is the Login Page of my app.

- Users can login using the credential or register by clicking the register button
- 

#### Test User Credentials

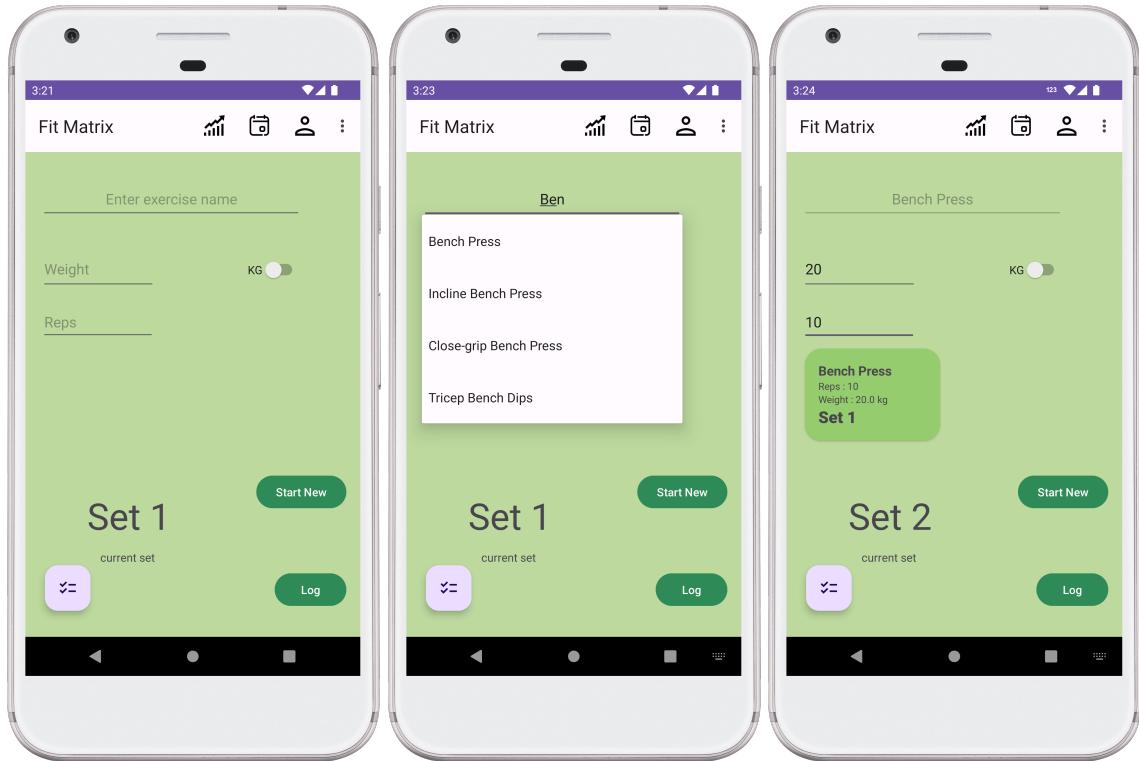
Username: [test@gmail.com](mailto:test@gmail.com)

Password: test1234

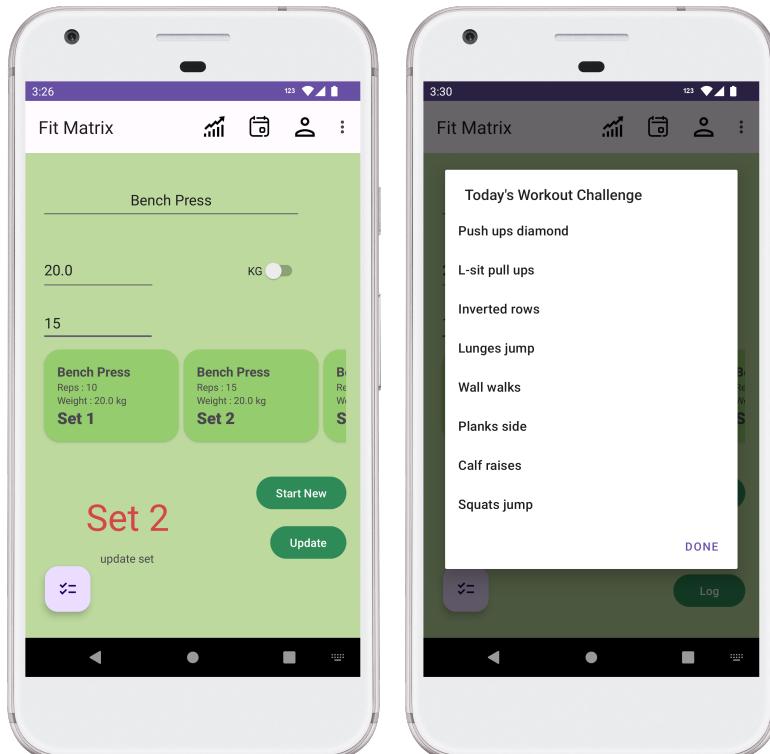
## Log Workout Page (Main Activity)

This is the main page of the applications, Users can Log Workouts, Check the Daily challenges.

All the workouts are stored In the local memory and a copy is also stored in Firebase.



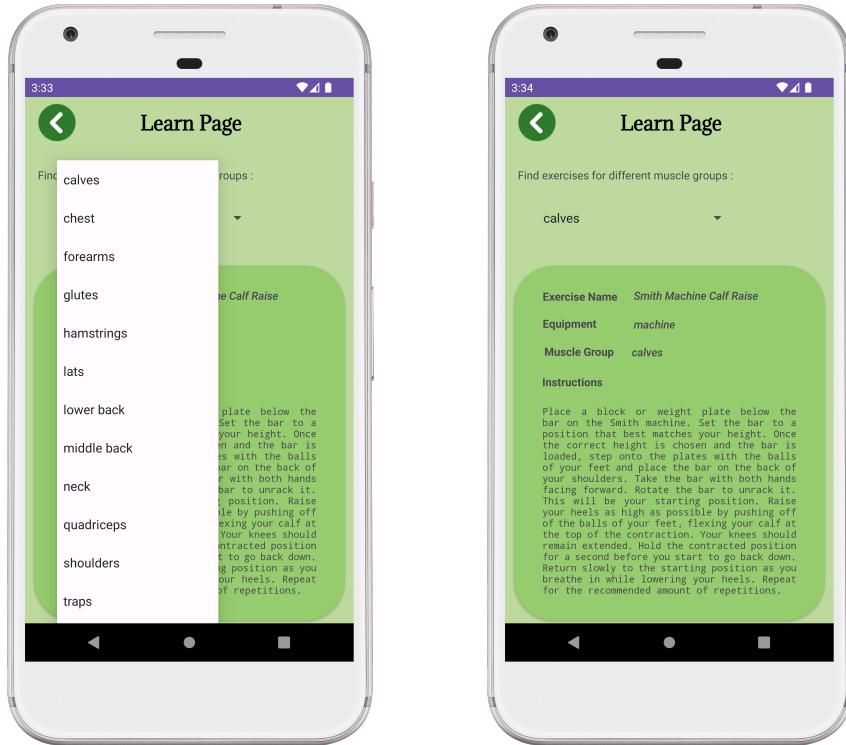
Users can also update the existing log By simply clicking on it and changing the details and finally pressing the Update button. To see the Daily challenge click on the Floating Button.



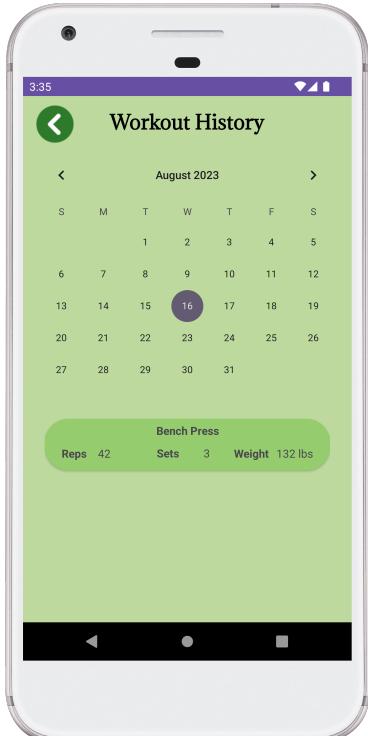
The App calls Vercel's workout API and returns a list of workouts that can be used as a daily challenge.

## Learn Page

In this page users can learn about different workouts based on the muscle group they want to train. The application uses Ninja API's workout API to fetch workouts and their details.



## Workout History Page (Calendar Page)



In this page users can view their progress. When the user selects a date, a summary of total volume performed including sets, reps and total weight lifted.

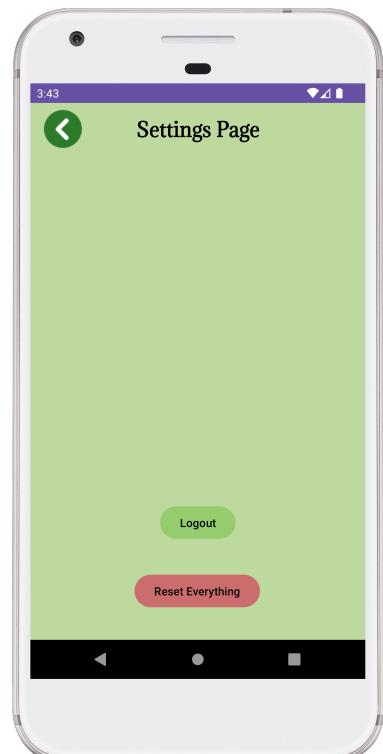
## Profile Page

This is the user profile page, Users can edit their profile picture using the edit picture button. The profile pic is also uploaded to Firebase.

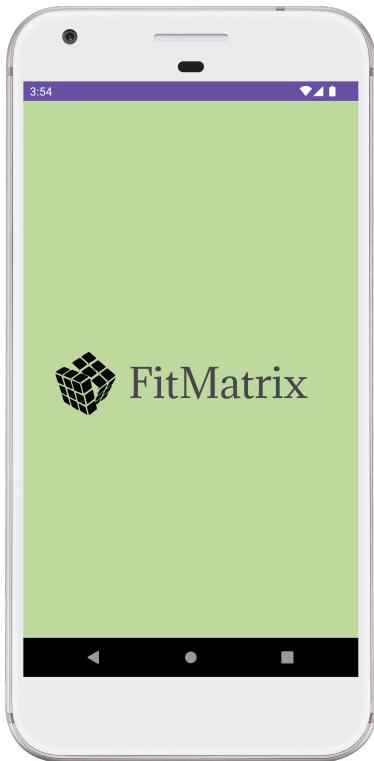


## Settings Page

This is the Settings Page, users can logout or reset/clear all the logged workouts from the local storage.



## Splash Screen



Splash Screen.

A 2 second splash screen showing the name and logo of the app.

## Google Firebase

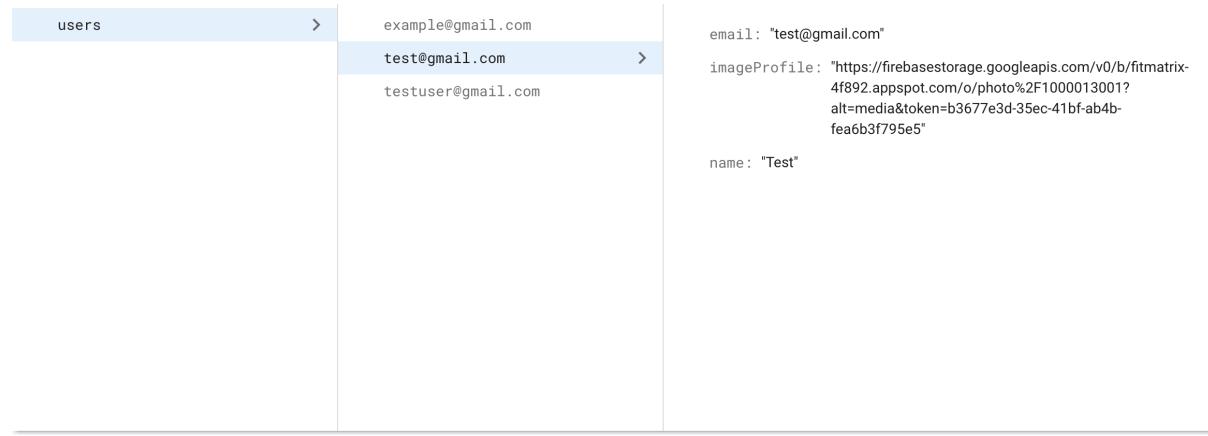
### Authentication

Identifier	Providers	Created	Signed in	User UID
example@gmail.com	✉	16 Aug 2023	16 Aug 2023	VIH8A4M2ZZL8i5CxOu67iC0h8...
anshdeepaini@gmail.com	✉	15 Aug 2023	15 Aug 2023	NZk7zCZUB7cCx1Q4cSaaRAy1963
test@gmail.com	✉	14 Aug 2023	16 Aug 2023	dVJK0dir7BW6cCw6puRCOJndDn...
anshdeeps@gmail.com	✉	14 Aug 2023	14 Aug 2023	TCVuMV5bhHdhJynVauypFRejFub2
anshdeepaini2@gmail.com	✉	13 Aug 2023	13 Aug 2023	wJHmz16iuzLqkxV64D1elaAIE453
ansh@gmail.com	✉	13 Aug 2023	13 Aug 2023	FFxHgALJb6T3qrwkDQRv4nR4o4...

Users details are stored inside Firebase Firestore database.

## Database

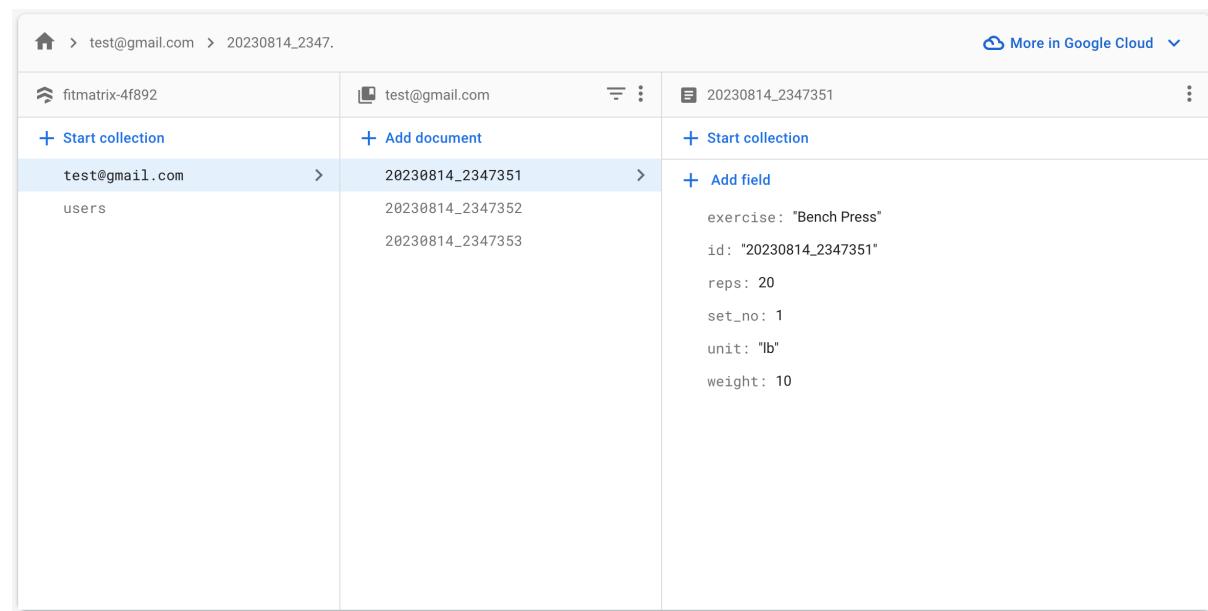
### User Details



The screenshot shows the Firebase Realtime Database interface. The left sidebar shows a tree structure with 'users' as the root node. Under 'users', there are two child nodes: 'example@gmail.com' and 'test@gmail.com'. The 'test@gmail.com' node is expanded, showing its child node 'testuser@gmail.com' and its data fields. The data fields are:

```
email: "test@gmail.com"
imageProfile: "https://firebasestorage.googleapis.com/v0/b/fitmatrix-4f892.appspot.com/o/photo%2F100013001?alt=media&token=b3677e3d-35ec-41bf-ab4bfea6b3f795e5"
name: "Test"
```

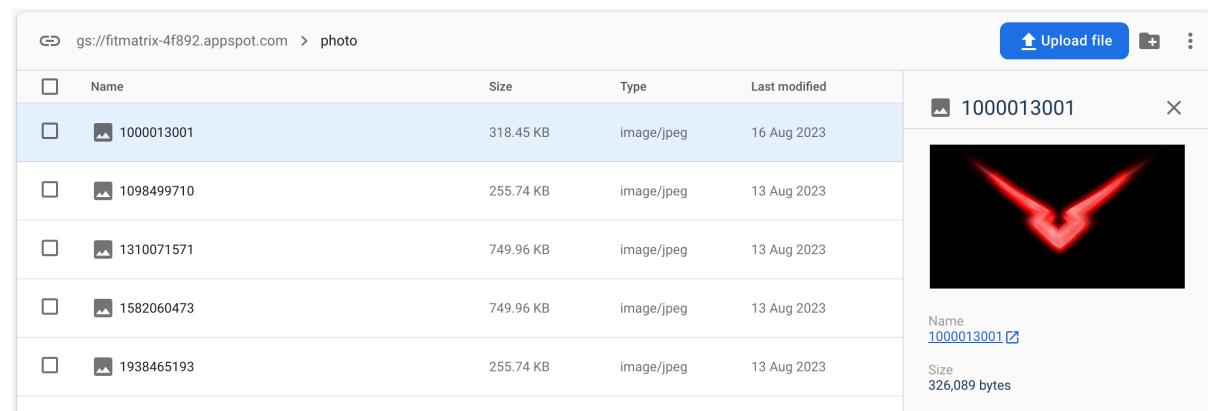
### Workout Logs for a particular user



The screenshot shows the Firebase Realtime Database interface. The left sidebar shows a tree structure with 'fitmatrix-4f892' as the root node. Under 'fitmatrix-4f892', there is a child node 'test@gmail.com'. The 'test@gmail.com' node is expanded, showing its child node '20230814\_2347351' and its data fields. The data fields are:

```
exercise: "Bench Press"
id: "20230814_2347351"
reps: 20
set_no: 1
unit: "lb"
weight: 10
```

The profile image is getting stored in Firebase Storage



The screenshot shows the Firebase Storage console. The left sidebar shows a tree structure with 'gs://fitmatrix-4f892.appspot.com' as the root node. Under 'gs://fitmatrix-4f892.appspot.com', there is a child node 'photo'. The 'photo' node is expanded, showing five files: '1000013001', '1098499710', '1310071571', '1582060473', and '1938465193'. The '1000013001' file is selected, and its details are shown on the right side of the screen. The details are:

Name	Size	Type	Last modified
1000013001	318.45 KB	image/jpeg	16 Aug 2023

The image preview shows a red V-shaped logo on a black background. The file details are:

Name: [1000013001](#)  
Size: 326,089 bytes

## Links

- Ninja Exercise API - <https://api-ninjas.com/api/exercises>
- Vercel Workout API - <https://workout-api.vercel.app/api/random>
- Github Repo - <https://github.com/Anshdeep-Singh/FitMatrix>