

Toy Exchange Application



Done by:

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Introduction

- Mobile application where the customers can buy and sell toys.
- Buyers can browse through the toy catalogue to buy the desired toy.
- The toy catalogue is updated by the sellers; the sellers can do so by posting an ad of their product .

Why Toy Exchange?

There exists no system for exclusive trade of toys. This can be ideal for new parents or those whose children have grown past the age to use certain toys.

Abstract

- Sellers need to upload the image of the toy along with title, description, the expected selling price of the same along with their contact number.
- Buyers can browse through several toy options, contact the sellers, negotiate with them one-on-one and then choose to purchase the toy.
- The conversations, bargaining, advances, transactions remain between the buyer and the seller, thus maintaining privacy.

Modular Design

- Login
- Sign Up
- Toy Catalogue
- Creating Ad
- User Account

Tech Stack

- VSCode, Android Studio +Emulator
- React Native (front-end framework)

Libraries include:

1. **React Native Paper** for overall styling of app components.
 2. **React Native Gesture Handler** to navigate between different screens.
 3. **React Native Vector Icons** to add relevant icons to add aesthetics and make the app user friendly.
- Firebase (back-end) and Firestore (cloud storage): Install packages to link with React Native app. Eg. For authorisation, etc.

DIAGRAMS

Requirement analysis

- Functional requirements
- Non functional requirements

Functional requirements

- **Login and Signup:** Existing customers can access the application post logging in. New customers can sign up.
- **Homepage/Toy Catalogue:** This is shown on successful signing in. Images of the available toys along with the description, price and contact. It is juxtaposed with a bottom screen navigation bar. The bar contains relevant icons embedded in buttons to easily move between screens.

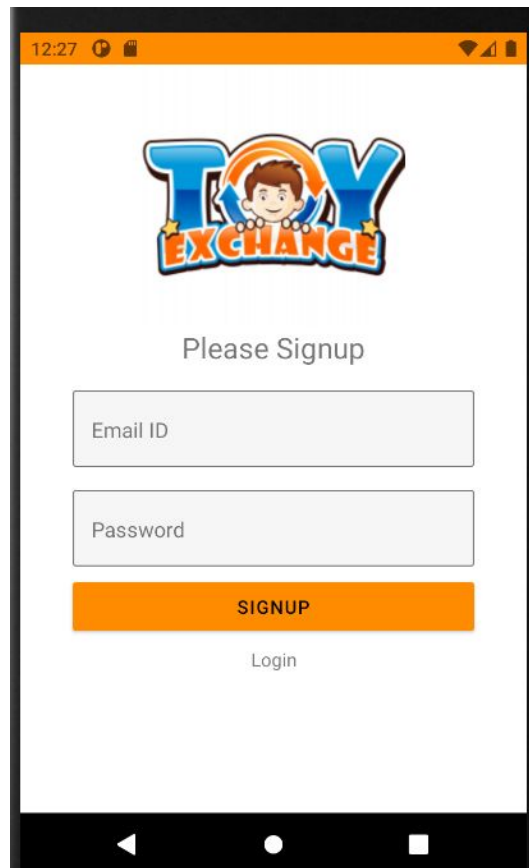
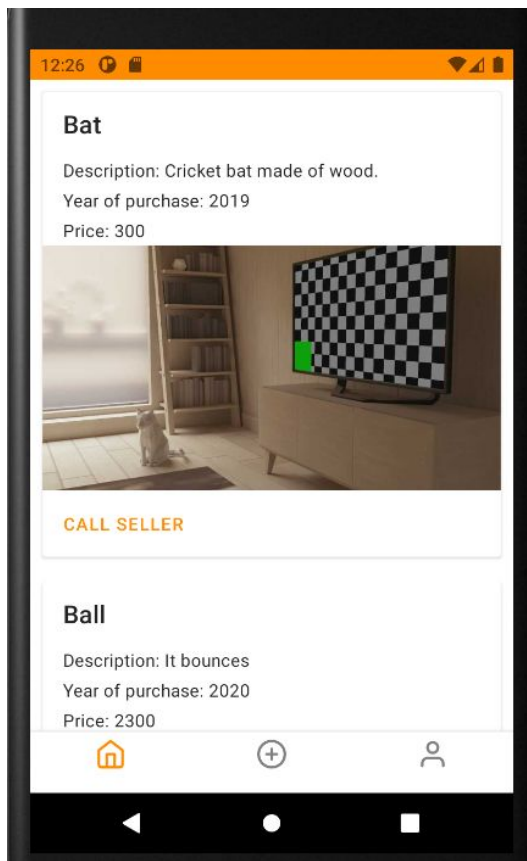
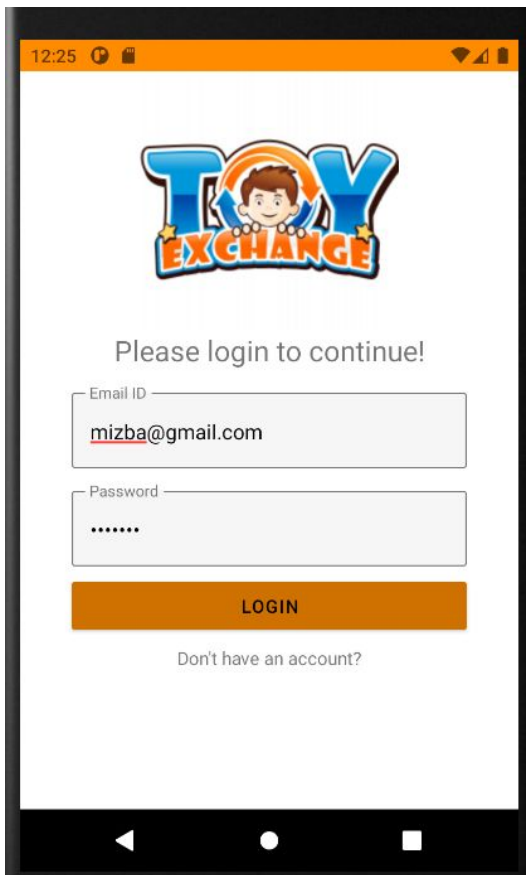
Functional requirements

- **Creating new ad:** Sellers can create an ad for their toy by providing the required details.
- **Purchasing a product:** Interested buyers can call the sellers directly through app to get further details (bargain, place of pick-up etc.).
- **Account details:** User can view his/her ads posted and choose to log out.

Non functional requirements

- **Safety requirements:** The user should have an account and remember the email address and password. User must understand the terms and conditions of data collected via application.
- **Security requirements:** Verification of the email and contact information provided by the user.

Screenshots of Application



12:26

Create Ad!


Toy name

Toy description


Year of purchase


Price


Mobile Number

 UPLOAD IMAGE

POST







12:26

mizba@gmail.com

LOGOUT


My ads!


Ball


Description: It bounces


Year of purchase: 2020

Price: 2300











Firebase



Project Overview



Build



Authentication



Firestore Database



Realtime Database



Storage



Hosting



Functions



Machine Learning

Release & Monitor



Extensions

Spark

Free \$0/month

Upgrade



ToyExchange ▾

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Authentication

[Users](#)[Sign-in method](#)[Templates](#)[Usage](#)

Prototype and test end-to-end with the Local Emulator Suite, now with Firebase Authentication

[Get started](#) 

Search by email address, phone number, or user UID

[Add user](#)

Identifier

Providers

Created ▾

Signed In

User UID

abhir@gmail.com



Dec 7, 2021

Dec 7, 2021

4V1zRs4k2PbVH55hRO5bllaeMm...

mizba@gmail.com



Nov 20, 2021

Dec 7, 2021

CAAdOJ3hIWtMXerEUllwGXdip97G3

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ToyExchange ▾

Cloud Firestore

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> ads > nmpSgVqsmzoe...



toyexchange-64198



ads



nmpSgVqsmzoeR4xxhxfk



Start collection



Add document



Start collection

ads



0kp1CZtMMM7RP2iZiYvX

nmpSgVqsmzoeR4xxhxfk



Add field

desc: "Cricket bat made of wood."

image: "https://firebasestorage.googleapis.com/v0/b/toyexch
64198.appspot.com/o/items%2F1638857768932?
alt=media&token=6da3b213-c561-4fd4-8f0d-
9b65a14019c6"

name: "Bat"

phone: "7586936473"

price: "300"

uid: "4V1zRs4k2PbVH55hRO5bllaeMm83"

year: "2019"



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Storage

Files

Rules

Usage



Protect your Storage resources from abuse, such as billing fraud or phishing

[Configure App Check](#)



gs://toyexchange-64198.appspot.com > items



Upload file



Name

Size

Type

Last modified



1638853098314

45.57 KB

image/jpeg

Dec 7, 2021



1638857768932

45.57 KB

image/jpeg

Dec 7, 2021

DEMO