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Receipt Analyzer

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Purpose of the Project

- Receipt Analyzer is a mobile application that enables customers to understand the price changes of products purchased from supermarkets.
- The main purpose of the app is to allow customers to scan the receipt that includes a list of products.
- The scanned data in the receipt contain some necessary information such as product name, price of product, and date.
- It is aimed to provide users with the opportunity to effectively observe the price changes in products in a certain period with a time/price graph.

Design & Implementation of the System

- The project is designed as a native application which present various GUIs to users to experience price observation of BİM products.
- The application is running on the Android Operating device, which uses OCR (Optical Character Recognition) technology to scan the receipt data.
- Crop functionality is used on the phone to extract the necessary data (product name, price, date) from the receipt photo which is taken by the smartphone user.
- The sytem communicates with the Realtime Database and transfers the data to the database after the crop operation.
- Finally, a graph which has x-axis (date) and y-axis (price) is displayed to the end-user.

Software Tools & Technologies

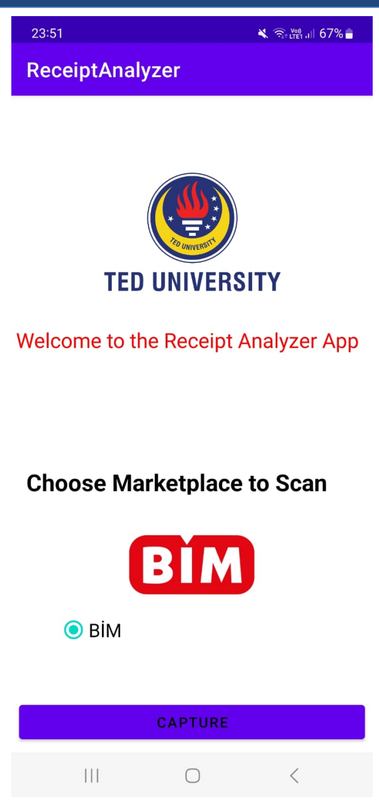
Firebase Realtime Database

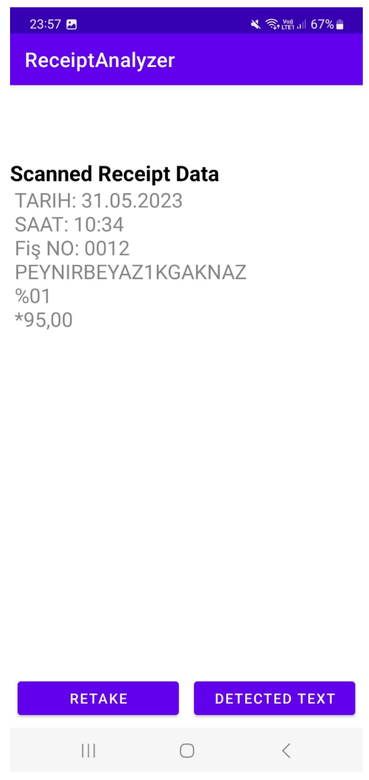
Java

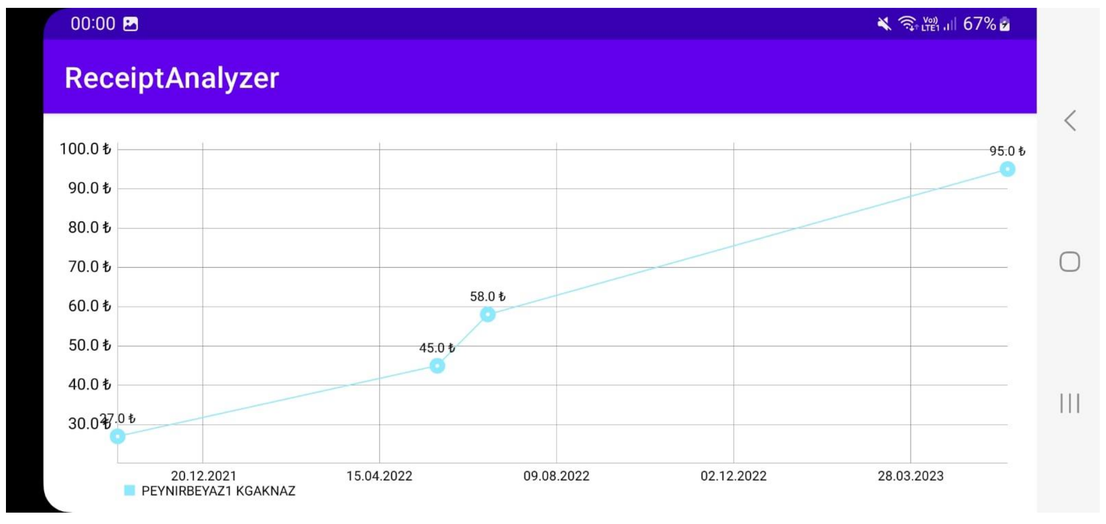
OCR

MPAndroidChart created by Philipp Jahoda

Application Mock-Up







Tests & Results

- Testing the functionality of successive OCR process and crop activity
- Testing the scanned data in the database in an extracted form without any data loss. Otherwise, the graph could not be observed as desired in some cases.
- Viewing the graph with related data from the receipt.

References

- PhilJay. (2019, April 7). PhilJay/MPAndroidChart. GitHub. https://github.com/PhilJay/MPAndroidChart
- Coding With Evan. (2021, August 14). Make a Text Scanner App | OCR App | Full Tutorial | Android Development [Video]. YouTube. https://www.youtube.com/watch?v=sjkDbxyoNW0
- Firebase. (2019). Firebase Realtime Database|Firebase Realtime Database|Firebase.Firebase. https://firebase.google.com/docs/database

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