CS 5551 Advanced Software Engineering

Price Matcher

Team 14 Gulnoza Khakimova Pranitha Saroj Karumanchi Sushmasri Surapaneni Sai Kalyan Vytla

Goals and Objectives

Motivation

While shopping each of us want to get best deals and save money. A lot of stores offer price match, if we could find an evidence that product is cheaper somewhere else the Seller does not want to lose clients and wants to be competitor. It is convenient for us, clients, who does not want to drive to other place to get the product if it is already available in the store where we are currently at. For some bigger purchases we will not mind to do a research, get best deal and save money. We had a lot of cases when we had to return to the store and ask for price match since after purchasing something we found out that item that we bought cost less somewhere else, which is inconvenient for us since we have to drive to the store second time.We want to create an Android application which will help us to save big not only money but our time as well.

Significance

Every person wants to save money but does not want to give up on their needs to shop for particular product. if application will help us very easily to save money and get best deals none of will say no to that application. We know that significant amount of money spent for shopping, if there is a way to save people could spend saved money for education, travelling on any other important needs. usually we try to do a research on a price if we are making bigger purchase, imagine if we could do it for each item that we are buying. Even if it will help us to save couple dollars for each item it will add up to good amount of saved money.

Objectives

We are planning to create an Android application which will read barcode and output product info and best prices immediately. User can select best price

and add that item to shopping list so when checking out he will not need to search for each item again in order to ask for price match. We will try to expand it by retrieving more information from the product and we might offer better product from same category which has better price and better reviews. Implementations of our ideas will depend on resource availability. Our application will have login page and will store selected items to database so user can keep track of items he purchased or was planning to purchase. Our application will have easy to use UI which will make it user friendly.

System Features

In order to implement our application we will need to work on Android Studio and use different APIs which will help us to determine best offers for the product. We will be testing our application on real device with real products.

Related Work

1. Amazon application which will output products only sold by amazon. 2. Walmart application performs scanning of the receipt after making all

purchases to compare prices. 3. Slickdeals shows items which are marked as a best value by users.

References:

1. https://www.pcmag.com/feature/290959/the-best-shopping-apps-to-compare-

prices/5 2. https://developers.google.com/vision/android/barcodes-overview 3. https://code.tutsplus.com/tutorials/android-sdk-create-a-barcode-reader--mobil

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Prioritized Features:

Notifications: A price matcher has this feature which enables user to get up to date information about deals and latest offers of different products.

Trending Product: Everyone is interested to know about trending products in different fields like fashion,grocery,automobiles. Here in this app we give different updates regarding those and compare the best price available.

Social media login: Social media login is like a must and should, as many people are engaged in different social medias like facebook,twitter. So, enabling user to login with those accounts instead of creating a new account for this application.

Bar code scanning: This is the key feature of this app, we will scan the barcode of different products and find the best price and show those comparisons to the user. This make user to shop easily and saves money.

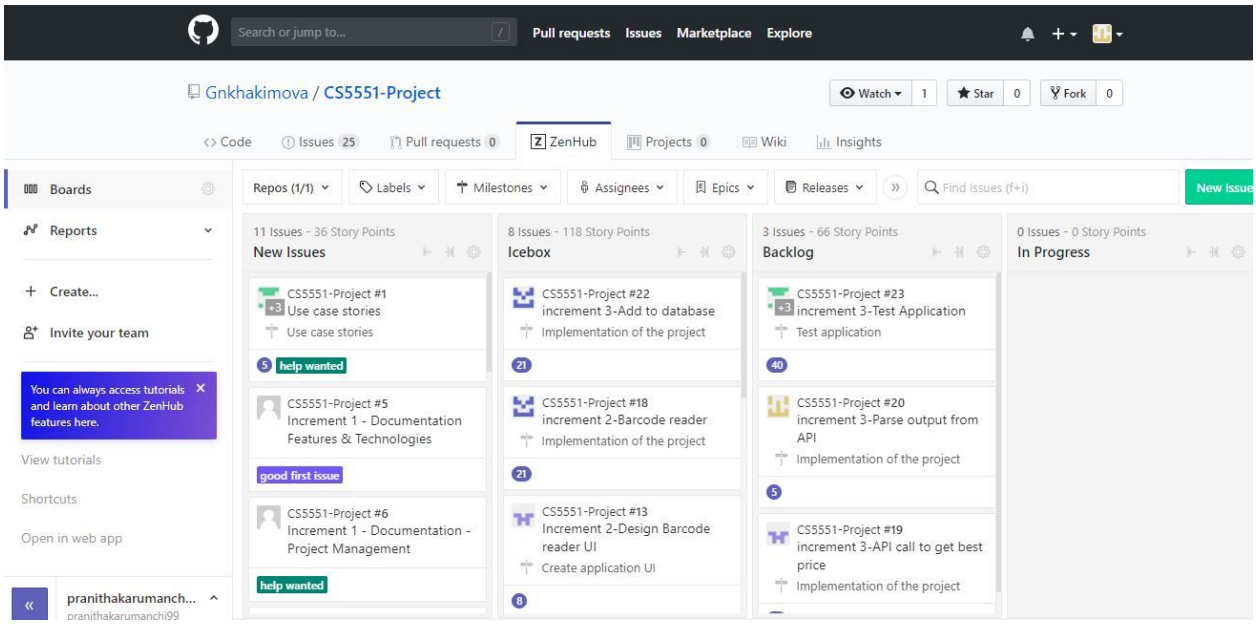
API: We use API to get better offers of different products. We call API which retrieve the information from database and shows to the user.

Technologies

Android studio: It is an official IDE. It is mainly used for application. It is a good editor tool where we can run over code and create UI according to our requirements. Here we are also using Gradle Plugin to run our code in different configuration. Our apk files can be easily moved to play store and can be edited. Using this we can check for performance , usability, by using lint tools. We are developing a android app, so this helps to support android wear apps.

SCHEDULE FOR THREE DIFFERENT INCREMENTS

We have finally proposed the project plan. Using the zenhub we have created the issues for our project. Project issues are divided as three increments.
In the following, we gone show the work to improve in each increment.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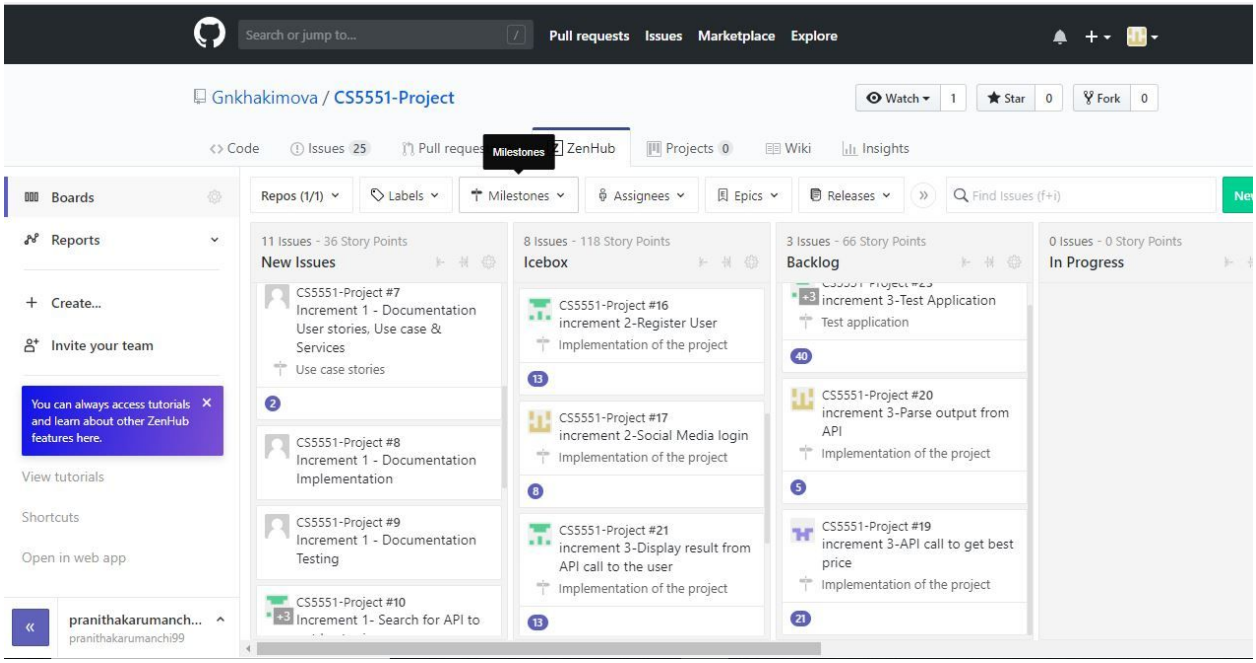
New Issue
11 Issues - 36 Story Points
New Issues
CS5551-Project #1
Use case stories
Use case stories
help wanted
CS5551-Project #5
Increment 1 - Documentation Features & Technologies
good first issue
CS5551-Project #6
Increment 1 - Documentation - Project Management
help wanted
8 Issues - 118 Story Points
Icebox
CS5551-Project #22
increment 3-Add to database
Implementation of the project
CS5551-Project #18
increment 2-Barcode reader
Implementation of the project
CS5551-Project #13
Increment 2-Design Barcode reader UI
Create application UI
3 Issues - 66 Story Points
Backlog
CS5551-Project #23
increment 3-Test Application
Test application
CS5551-Project #20
increment 3-Parse output from API
Implementation of the project
CS5551-Project #19
increment 3-API call to get best price
Implementation of the project
0 Issues - 0 Story Points
In Progress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Repos (1/1)
Labels
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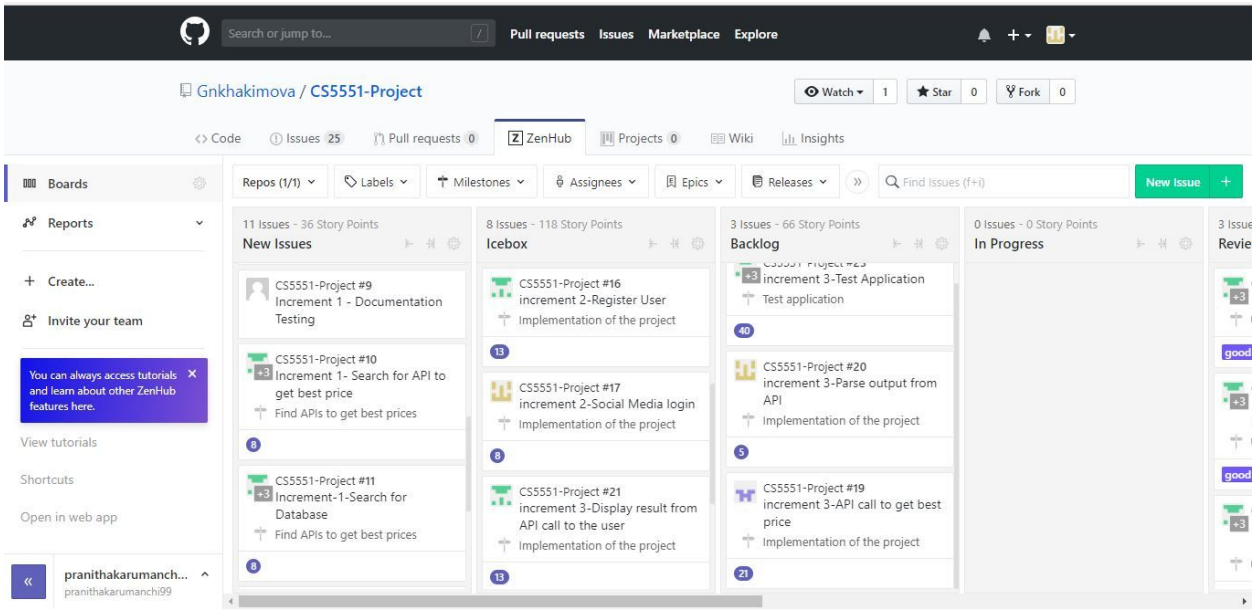
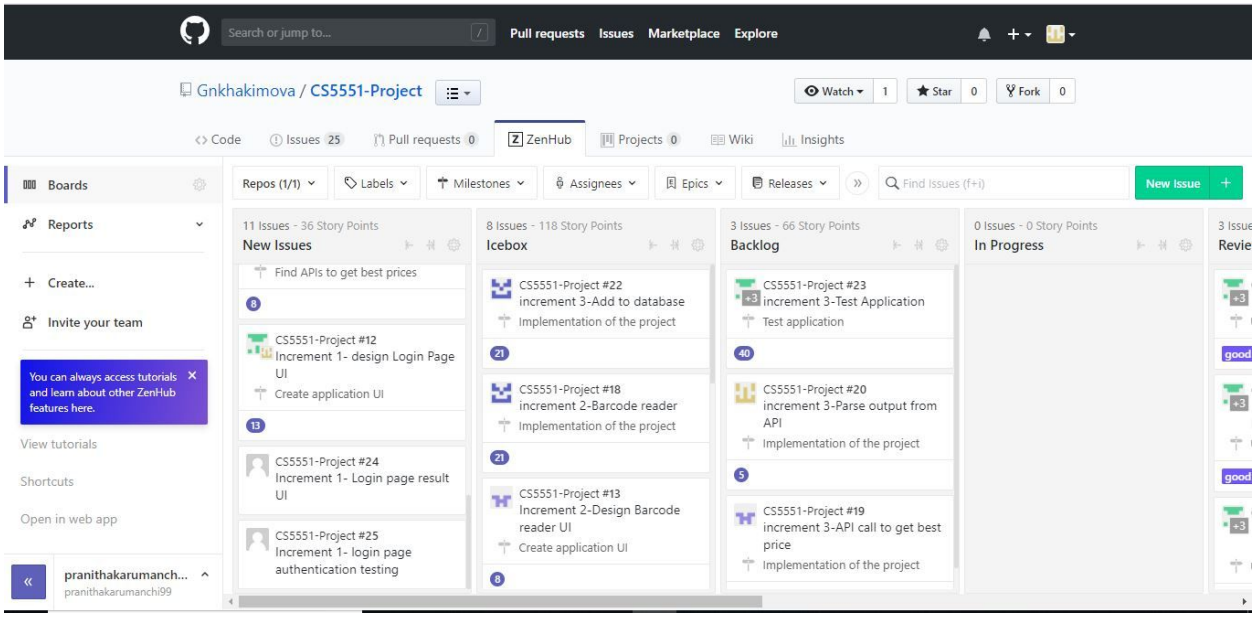
Find Issues (f+i)
11 Issues - 36 Story Points
New Issues
CS5551-Project #7
Increment 1 - Documentation User stories, Use case & Services
Use case stories
CS5551-Project #8
Increment 1 - Documentation Implementation
CS5551-Project #9
Increment 1 - Documentation Testing
CS5551-Project #10
Increment 1- Search for API to
8 Issues - 118 Story Points
Icebox
CS5551-Project #16
increment 2-Register User
Implementation of the project
CS5551-Project #17
increment 2-Social Media login
Implementation of the project
CS5551-Project #21
increment 3-Display result from API call to the user
Implementation of the project
3 Issues - 66 Story Points
Backlog
increment 3-Test Application
Test application
CS5551-Project #20
increment 3-Parse output from API
Implementation of the project
CS5551-Project #19
increment 3-API call to get best price
Implementation of the project
0 Issues - 0 Story Points
In Progress





Stories

- As a user, they want to login, and scan barcode.
- We call API to get best price for that product.
- We display result from API call to the user.
- User can check the price and product and add to cart.
- We show all the deals, offers to the user.
- User can login through social media sites.

Project TimeLines, Members, Task Responsibility

We divided our project work into three incremental parts. In each phase every team member has there own roles in developing this app. Tasks were assigned to every member and reviewed at the end of the period. In zenhub we can see each others contribution.

Members of our group:
Gulnoza Khakimova
Pranitha Saroj Karumanchi
Sushmasri Surapaneni
Sai Kalyan Vytla

Task Responsibilities:

Gulnoza Khakimova: Project proposal and issues.
Pranitha Saroj Karumanchi: Stories, project timelines,task responsibilities,burndown chart and issues.
Sushmasri Surapaneni: Schedule plan.
Sai Kalyan Vytla: Project features and Technologies and issues.

Burndown Chart