

Mobile Application Development Laboratory
Lab 8

SQLite and Widgets

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Aim:

To make an android application that implements a simple Product Management Portal using SQLite, Action Bar and Widgets.

Description of App:

We create an android application with the following specifications:

1. In an activity, have text boxes, textviews, to collect the information such as Product name, product id, MRP, Price and add button. Upon clicking the button, add the details into the sqlite database redirect to another activity and display all product information in database
2. Have 3 action bar menu items for displaying all product information, to display the given product id information and edit the particular product id information.
3. Display the list of products available using a widget on the home screen. Have a button with the widget to open the app.

Device Specifications:

Model: Poco F1

Android Version: 9 (API Level 28)

Resolution: 2160 x 1080 pixels

Technical Concepts Learnt:

- To create and inflate Menus.
- To create and customize Action Bar
- To create and use Widgets.
- To create, use and query SQLite Databases.
- To store persistent data using SQLite Databases.
- To create and use Recycler Views and Fragments

Source Code:

<https://drive.google.com/file/d/16LnYKv4wRXkopuftsXJEacn7Nwrxkgy5/view?usp=sharing>

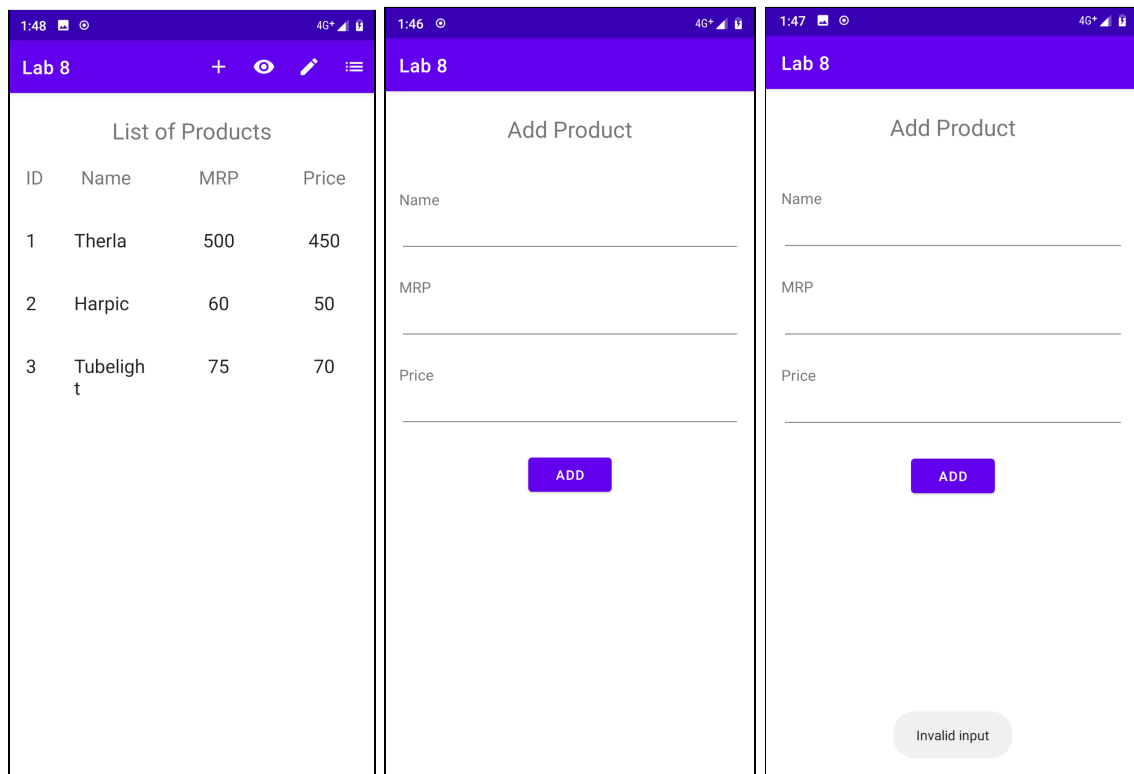
Video Demo:

<https://drive.google.com/file/d/1Vk5WZ98aLb7djQkPmc39Ch3l8n9mxzyT/view?usp=sharing>

APK:

https://drive.google.com/file/d/1ejCFchCrceNCi2lJk3uuWHesKJH_rLaf/view?usp=sharing

Screenshots:



(i) Product List

(ii) Add Product

(iii) Add Product - Validation

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Add Product

Name
Harpic

MRP
60

Price
50

ADD

(iv) Add - Input

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Show Product

Product ID

SUBMIT

(v) Show Product

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Show Product

Product ID
2

SUBMIT

(iii) Show - Search

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Lab 8

Show Product

Product Information

Name
Harpic

MRP
60

Price
50

(vii) Show Info

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Edit Product

Product ID

SUBMIT

(viii) Edit - Search

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Edit Product

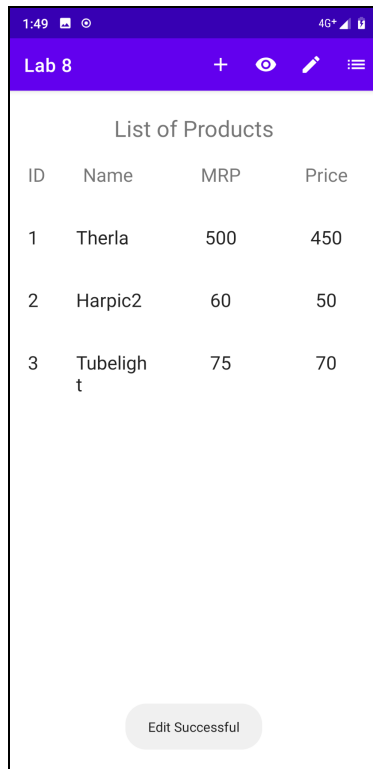
Name
Harpic

MRP
60

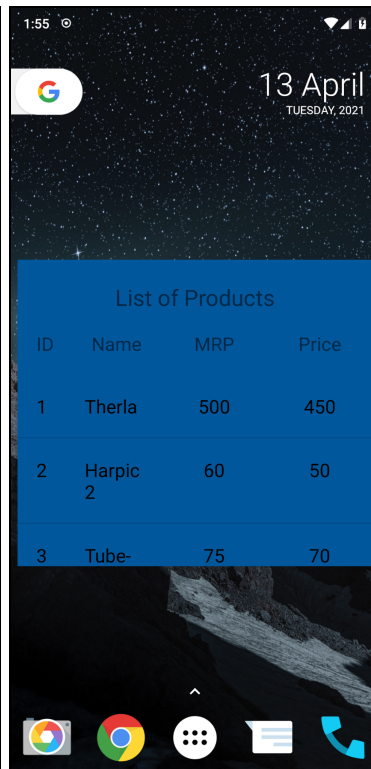
Price
50

EDIT

(ix) Edit Input



(x) Edit - Success



(xi) Widget

Outcomes:

An android application was developed using SQLite. Various concepts in Android App Development were explored including:

- Creating and inflating Menus.
- Creating and customizing Action Bar.
- Creating and using Widgets.
- Creating, using and query SQLite Databases.
- Storing persistent data using SQLite Databases.
- Creating and using Recycler Views.