

The Warehouse

Manager Specials

REPORT OF THE PROJECT SUMMARY

Team X



Table of Contents

01

**Project
Introduction**

02

**App
Demonstration**

03

**Architecture
Overview**

04

**Project
Impact**

PART 01

Project Introduction



Project Introduction

THE WAREHOUSE SPECIALS



The Warehouse - Westgate

Open today 7am - 10pm



Westgate Managers Specials

In-Store Only - The Warehouse Westgate

Living & Co Turner Storage Bench Grey



LOW STOCK

Westgate Managers Special

\$279.97

~~\$499.99~~

Active Intent Fitness Exercise Bike



ULTRA LOW STOCK

Westgate Managers Special

\$239.97

~~\$307.98~~

Project Background

- 88 Branches.
- Every week.
- The current app does not show these.
- A prototype is needed.

Demand Key Points

- App Goal:
Display special offers defined by store managers.
- Attract customers to visit physical stores.
- Not an online shopping app.
- Technologies:
OkHttp for API communication,
Jetpack Compose for frontend.



PART 02

App Demonstration




Home Page

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**Takanini** ▾

Open today 08:00 - 22:00

Living & Co Boston Bed Frame Single

**\$113.97**
\$226.97 >



Razer Wireless Gaming Headset for Xbox Series X/S

**\$214.97**

Living & Co 500 gsm NZ Wool Duvet Inner White King

**\$39.97 - \$49.97**
\$79.97 - \$99.98 >

Maison d'Or Hotel Collection Duvet Inner Tencel Blend White King

**Henderson West City** ▾

Open today 08:00 - 21:00

Auckland Region

Bay of Plenty Region

Papamoa

Rotorua

Branch Selector

- Displays current branch name and business hours.
- Click to expand the drop-down list

Product List

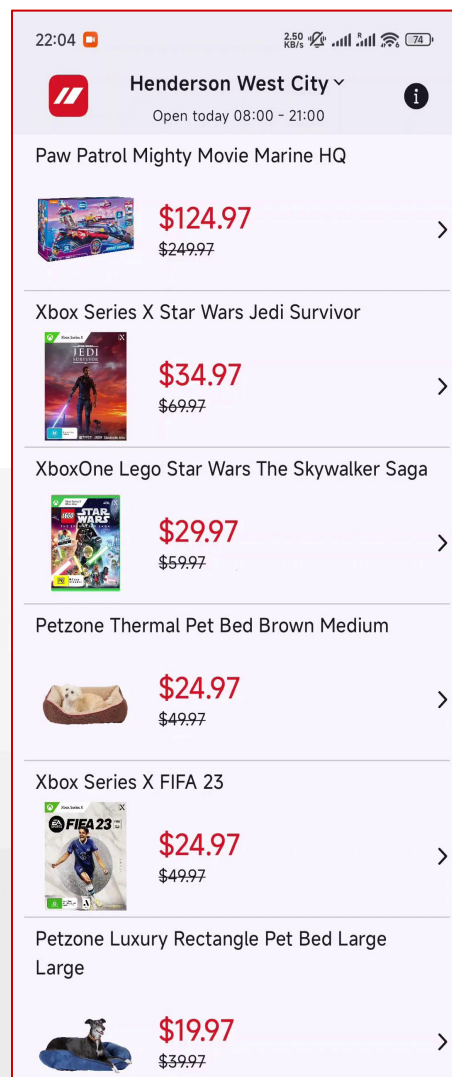
- Display product name, thumbnail, price (range).
- Click to enter the product detail page.

Shop Selection List

- Red rows are regions.
- White rows are branch names.
- Region rows are collapsible.
- Click branch name to switch.

Home Page

THE WAREHOUSE SPECIALS



01

Displays current branch name and business hours.
Click to expand the drop-down list

02

Display product name, thumbnail, price (range).
Click to enter the product detail page.

03

Red rows are regions, white rows are branch names.

Region rows are collapsible. Click to switch.

Product Detail Page

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Living & Co 500 gsm NZ Wool
Duvet Inner White King

Living & Co 500 gsm NZ Wool
Duvet Inner White King

\$39.97 ~~\$79.97~~
Save: \$40.00
Offer ends: 2024/09/28

Size

KN

SK

Barcode



9401097003416

Stock Level

Only 4 units left

Did you find it?

Yes

No

Product Image Component

- Click to enlarge.
- Allow zoom/pan.
- Varies by product size/color.

Size/Color Selector

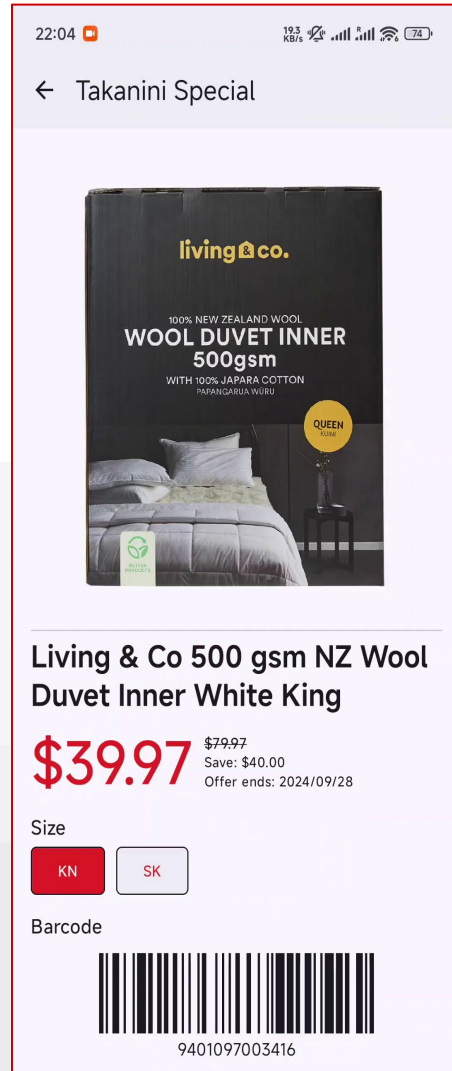
- Display current/original price and other info.
- Display available sizes and colors.

Barcoding and Stock

- Display the product barcode.
- Displays stock quantity.

Product Detail Page

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01

Display the main image of the product.
Click to enlarge.

02

Display the discounted price, original price, price difference, and promotion end date.

03

Color/Size selector.
Display product barcode and stock.

Branch Detail Page

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← Branch Details

Branch of Henderson West City

Branch ID: 103

Description: Henderson West City

Contact Information

Address: 30 Railside Avenue, Henderson, Auckland 0612

Phone: 9-8363892

Email: stockroom.westcity@thewarehouse.co.nz

Trading Hours

Sunday: 08:00 - 21:00

Monday: 08:00 - 21:00

Tuesday: 08:00 - 21:00

Wednesday: 08:00 - 21:00

Thursday: 08:00 - 21:00

Friday: 08:00 - 21:00

Saturday: 08:00 - 21:00

Branch Name

Includes branch ID and branch description.
(Information comes from API)

Contact Details

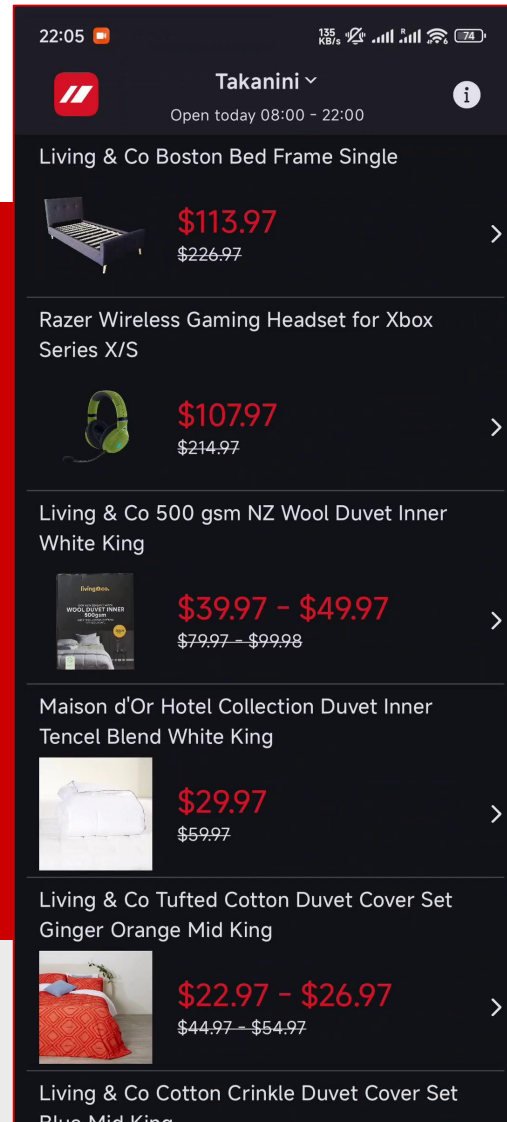
Include address, phone number and email.

Trading hours

Since the main interface only provides the trading hours for the current date, the trading hours for each day of the week are provided here.

Dark Theme

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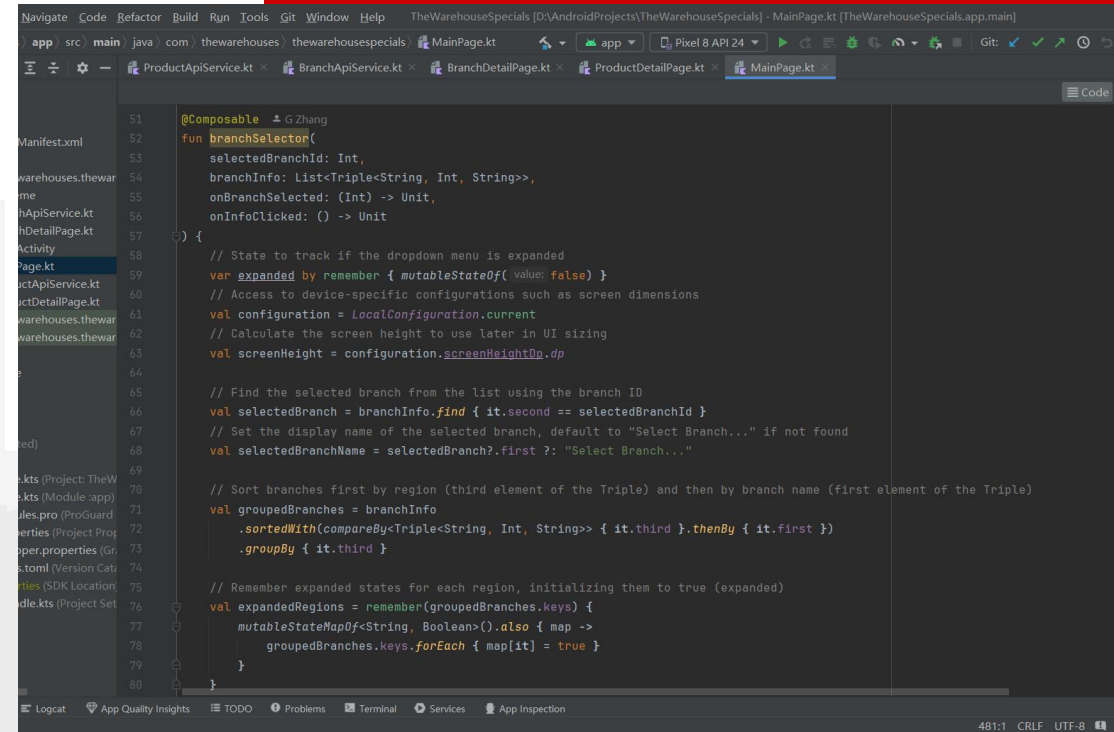


Android 10 and above have a dark theme.

The App adapts to system-wide dark mode, improving user experience in low-light environments.

PART 03

Architecture Overview



The screenshot shows the Android Studio IDE with the following details:

- File Explorer (Left):** Lists files including `Manifest.xml`, `warehouses.thewar`, `me`, `hApiService.kt`, `hDetailPage.kt`, `Activity`, `Page.kt`, `uctApiService.kt`, `uctDetailPage.kt`, `warehouses.thewar`, and `warehouses.thewar`.
- Editor (Center):** Displays the `MainPage.kt` file with the following Kotlin code:

```
51 @Composable
52 fun branchSelector(
53     selectedBranchId: Int,
54     branchInfo: List<Triple<String, Int, String>>,
55     onBranchSelected: (Int) -> Unit,
56     onInfoClicked: () -> Unit
57 ) {
58     // State to track if the dropdown menu is expanded
59     var expanded by remember { mutableStateOf<Boolean>{ value: false } }
60     // Access to device-specific configurations such as screen dimensions
61     val configuration = LocalConfiguration.current
62     // Calculate the screen height to use later in UI sizing
63     val screenHeight = configuration.screenHeightDp
64
65     // Find the selected branch from the list using the branch ID
66     val selectedBranch = branchInfo.find { it.second == selectedBranchId }
67     // Set the display name of the selected branch, default to "Select Branch..." if not found
68     val selectedBranchName = selectedBranch?.first ?: "Select Branch..."
69
70     // Sort branches first by region (third element of the Triple) and then by branch name (first element of the Triple)
71     val groupedBranches = branchInfo
72         .sortedWith(compareBy<Triple<String, Int, String>> { it.third }.thenBy { it.first })
73         .groupBy { it.third }
74
75     // Remember expanded states for each region, initializing them to true (expanded)
76     val expandedRegions = remember(groupedBranches.keys) {
77         mutableStateMapOf<String, Boolean>().also { map ->
78             groupedBranches.keys.forEach { map[it] = true }
79         }
80     }
```
- Bottom Bar:** Includes tabs for Logcat, App Quality Insights, TODO, Problems, Terminal, Services, and App Inspection. The status bar at the bottom right shows "481:1 CRLF UTF-8".

Architecture Overview

THE WAREHOUSE SPECIALS



API Communication and Data Processing

Manages API requests to fetch real-time store and product data.

OkHttp library

- **Method:**
 - `getProductByBID()` dynamically retrieves product data for each store.
- **Data Handling:**
 - API responses are processed to categorize and display independent, semi-independent, and composite products.

Architecture Overview

THE WAREHOUSE SPECIALS

State Management and UI Updates

Provides a reactive UI that responds to real-time data changes.



Jetpack Compose

- **Data Flow:**
 - Utilizes `StateFlow` and `LiveData` for seamless UI updates, ensuring smooth transitions when users select different stores or products.
- **Collapsible Branch Selection:**
 - Uses `LazyColumn` and expandable UI components to allow users to collapse or expand regions for easier navigation between stores.

Architecture Overview

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Image Zoom and Interaction

Allows users to zoom in, pan, and interact with product images.

Accompanist library

- Provides a detailed view of products, enhancing user experience, especially for items like clothing or electronics.

Architecture Overview

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Barcode Generation

Generates Code 128 barcodes based on product IDs.

```
"pppProductKey": 2760321,  
"productId": "R2760321",  
"mdmProductId": "430839",  
"endTime": "2024-09-21T13:39:00",  
"isClearance": true,  
"barcode": "9332066060676",  
"imageUrl": "https://twg.azure-api.net/PPPIImages/ppp/pr  
"productName": "Akai Bottom Mount Fridge Freezer 323 Li  
"priceInfo": {  
  "price": 399.97,  
  "branchPrice": 799.97  
},  
"soh": 2
```

ZXing library

- Enables barcode scanning for product lookups and fast checkout in physical stores.

PART 04

Project Impact



Impact on the Client

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Increased Foot Traffic

By presenting special deals, the app serves as a marketing tool that draws customers to the stores. This helps client enhance in-store shopping experiences, which can boost sales.

01

02

Improved Customer Engagement

The ability to easily update and showcase special offers in real-time ensures that managers can keep their promotions relevant and effective. The flexibility to change promotions based on stock levels or seasonal events gives client a strategic advantage in adapting to customer demand.

03

Brand Loyalty

By providing customers with a convenient way to find promotions and encouraging them to visit physical locations, the app helps strengthen brand loyalty.

Impact on the Users

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01

Convenience

Users can quickly browse special offers across multiple stores, grouped by region, helping them decide which store to visit based on the deals available and the store's proximity.

02

Time Savings

The clear display of store operating hours and promotions saves users time. They can quickly find which stores are open, what deals are available, and make a plan to visit a store that suits their needs.

03

Better Decision-Making

With detailed product information, including original and discounted prices, users can easily compare offers. Features like promotion end date ensure that users are fully informed before making a trip to the store.

The End!

Thanks for Listening!

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Team X



Question & Answer

Team X

