Digital Receipt Organizer
(About my flutter App)

A Digital Receipt Organizer is an app that helps users digitize, categorize, and manage their receipts efficiently. The app scans physical receipts, extracts relevant data using Optical Character Recognition (OCR), stores the information in a structured format, and offers various features to keep receipts organized.

Features integrated :

Receipt Scanning with OCR Integration:

- Scans physical receipts and extracts key information like date, amount, and store.
- Powered by the **OCR.Space API** for Optical Character Recognition.
- Handles multiple languages for better accuracy.

Categorization and Organization:

- Automatically categorizes receipts into types like:
  - Groceries
  - Utilities
  - Clothing
  - Healthcare
  - Others
- Users can manually edit and assign categories.

Features used in my flutter app :

User Authentication:
•Firebase Authentication for secure login and account management.
•Supports Email/Password and Google Authentication.

Data Storage and Sync:
•**Firebase, Firestore** to store receipt data in a structured format.
•Real-time synchronization between devices.
(I Created my Firebase_name as OCRBACKEND)

Swipe Gestures for Management:
•Swipe left to archive receipts.
•Swipe right to delete or mark receipts as reviewed.

Theming and UI Customization:
•Light and Dark Mode support.
•Consistent UI using Flutter theming.

Technical enhancements :

Technical Features Integration:

- **Frontend:** Flutter (Dart)
- **Backend:** Firebase, Firestore, Firebase Authentication
- **API Integrations:** OCR.Space API (for receipt scanning)
- **State Management:** Provider or Riverpod
- **Navigation:** Flutter Navigator 2.0
- **Localization:** Used Json for localization
- **NDK Version used:** 29.0.13113456

Localization & Multi-language Support:

Supports multiple languages:

- English(en.json)
- Spanish(es.json)
- French(fr.json)
- Tamil(ta.json)

- JSON-based localization for easy translation management.

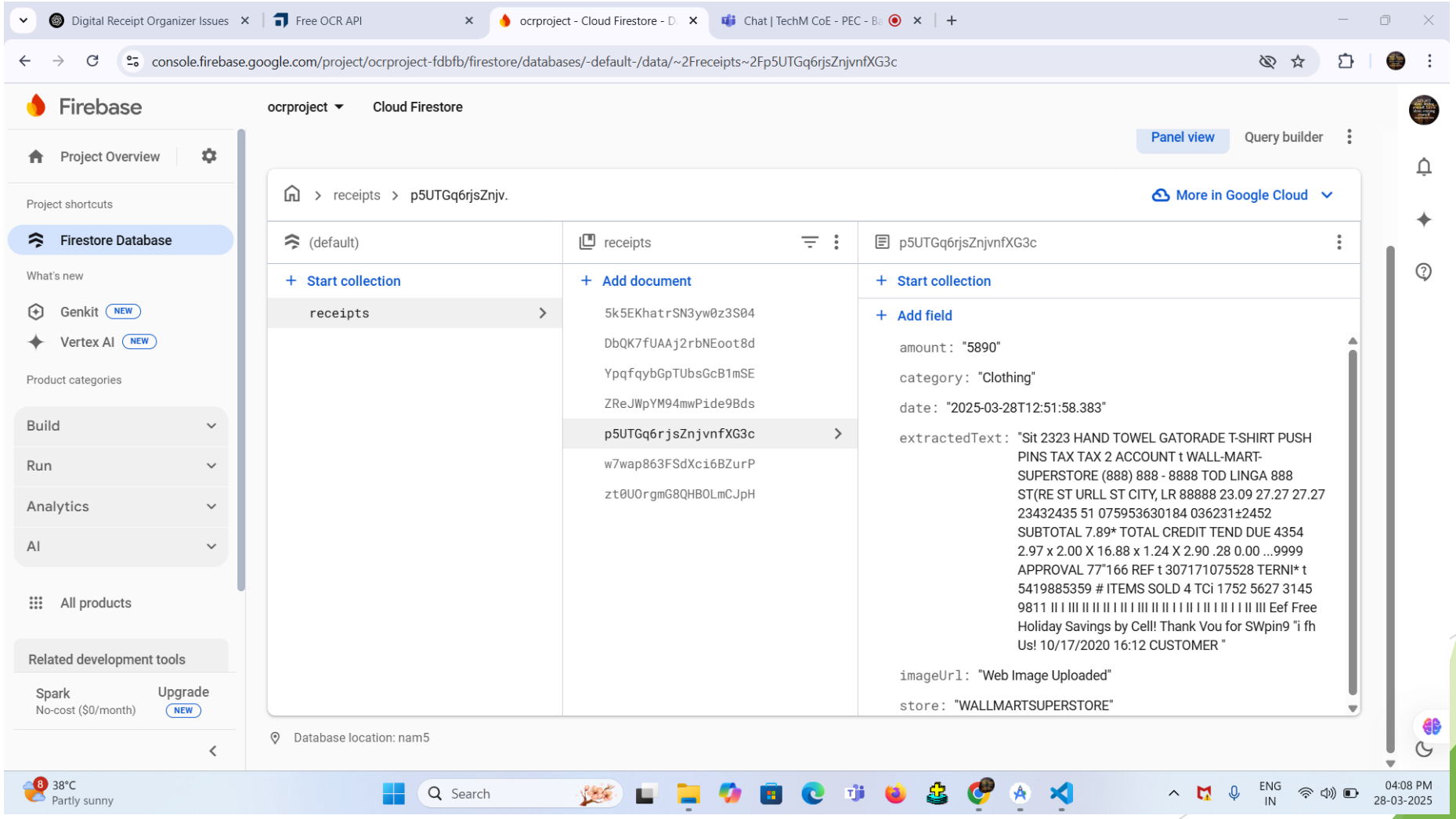
Benefits:

- Easy to update and maintain translations.
- Scalability for adding new languages without changing code.
- Improved user experience with seamless language switching.

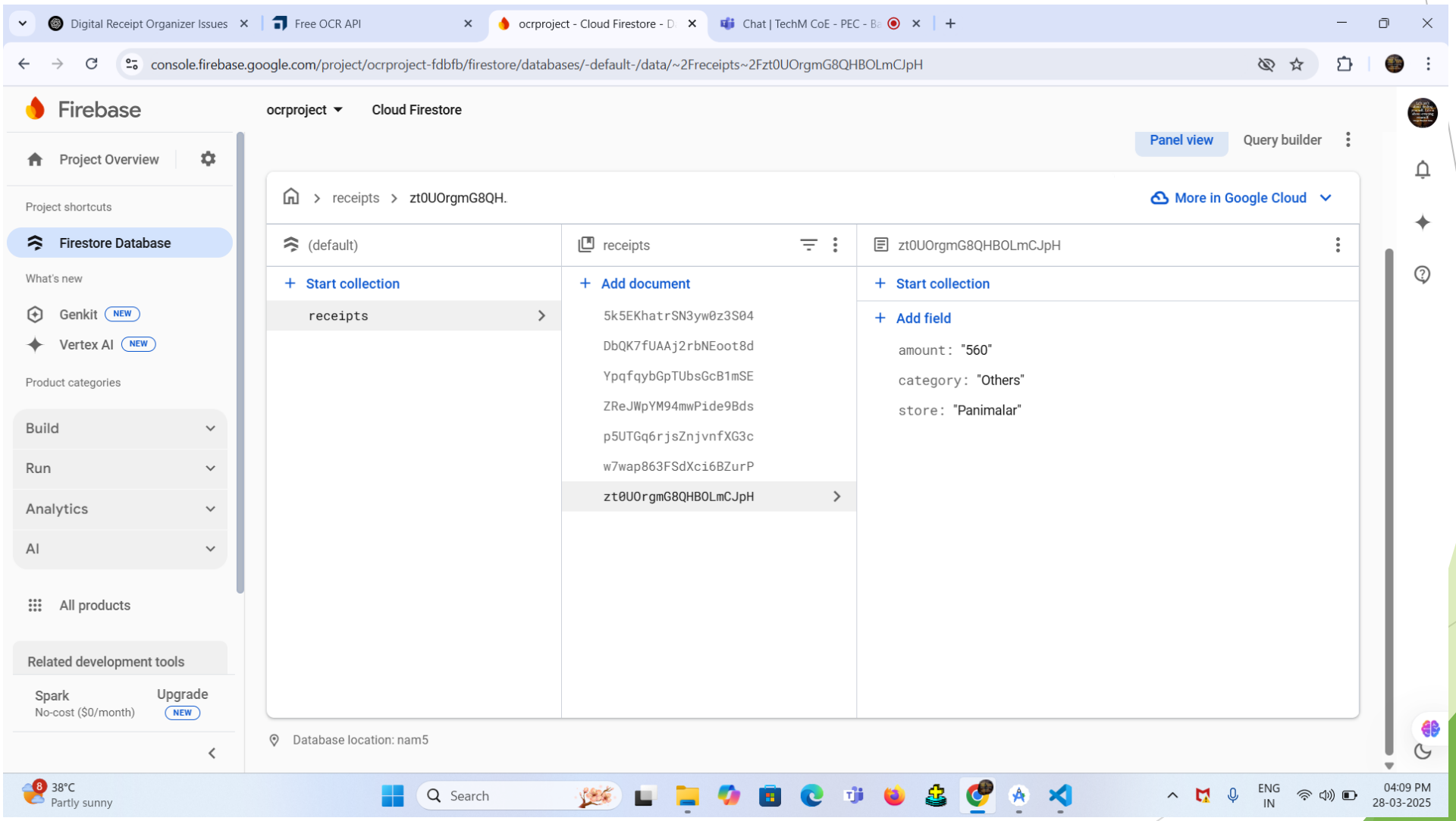
Firebase Integration in Your Digital Receipt Organizer

- Firebase helps your app by providing secure login using email, password, or Google Sign-In with **Firebase Authentication**.
- All scanned receipt data, such as date, amount, and category, is stored in **Firebase Firestore** in an organized format.
- **Firebase Storage** securely stores receipt images and provides URLs for easy access. To protect user data, **Firestore Security Rules** allow only authenticated users to access their information.
- Any updates made are instantly reflected across devices due to real-time synchronization.
- Additionally, **Firebase Analytics** helps track user activity and provides insights, making Firebase a reliable and secure backend for your app

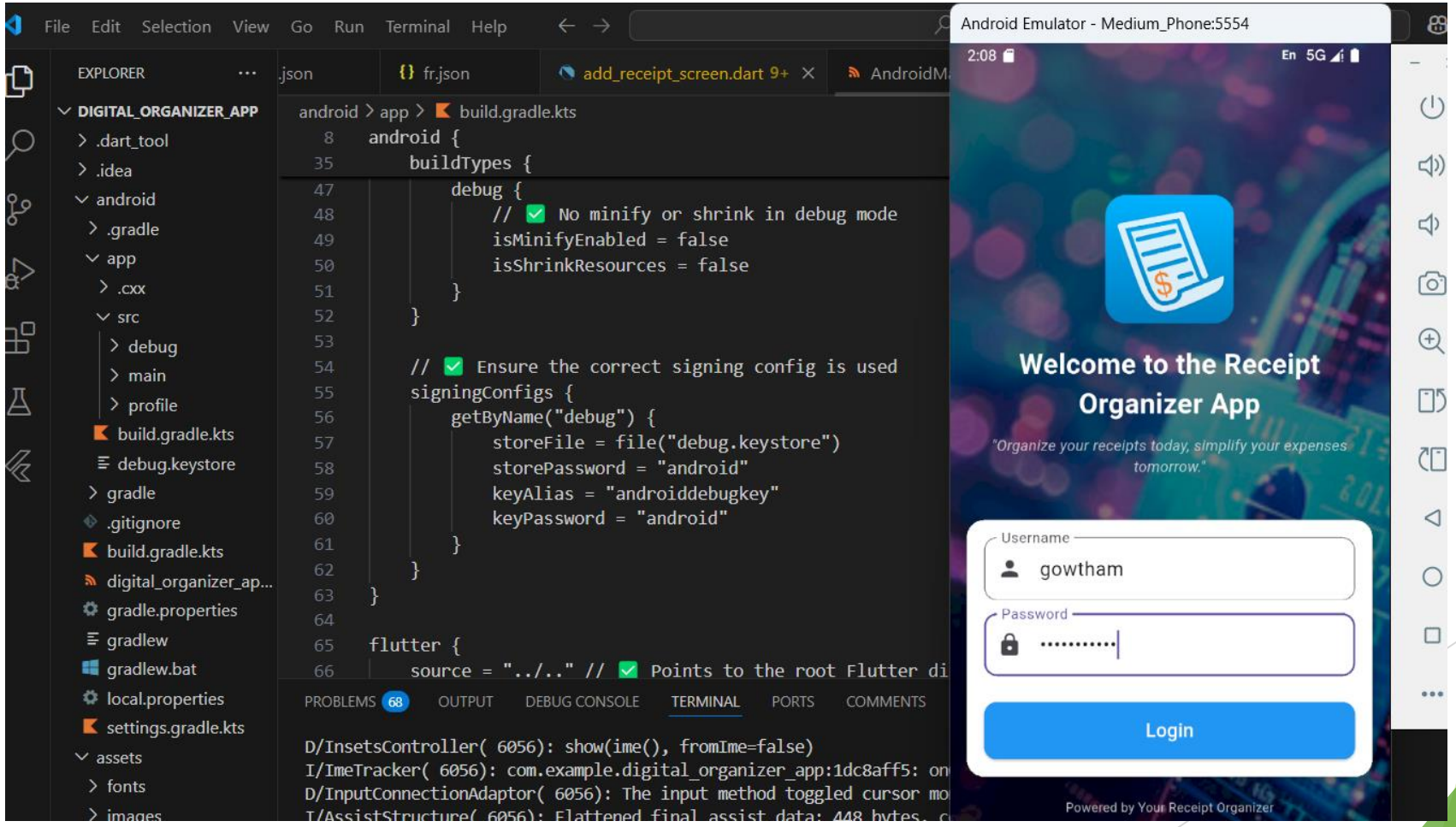
Firebase Screenshot 1



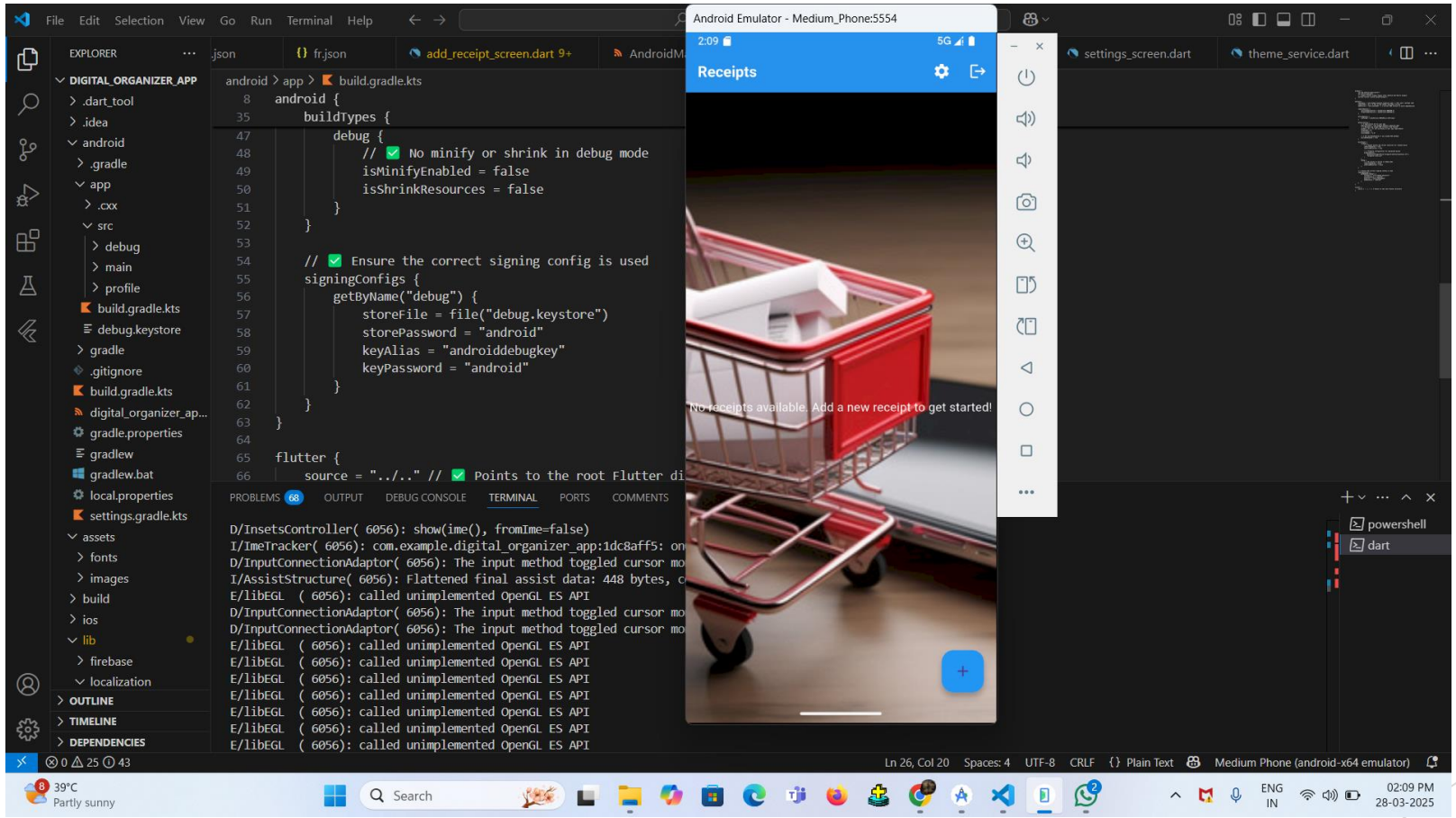
Firebase Screenshot 2



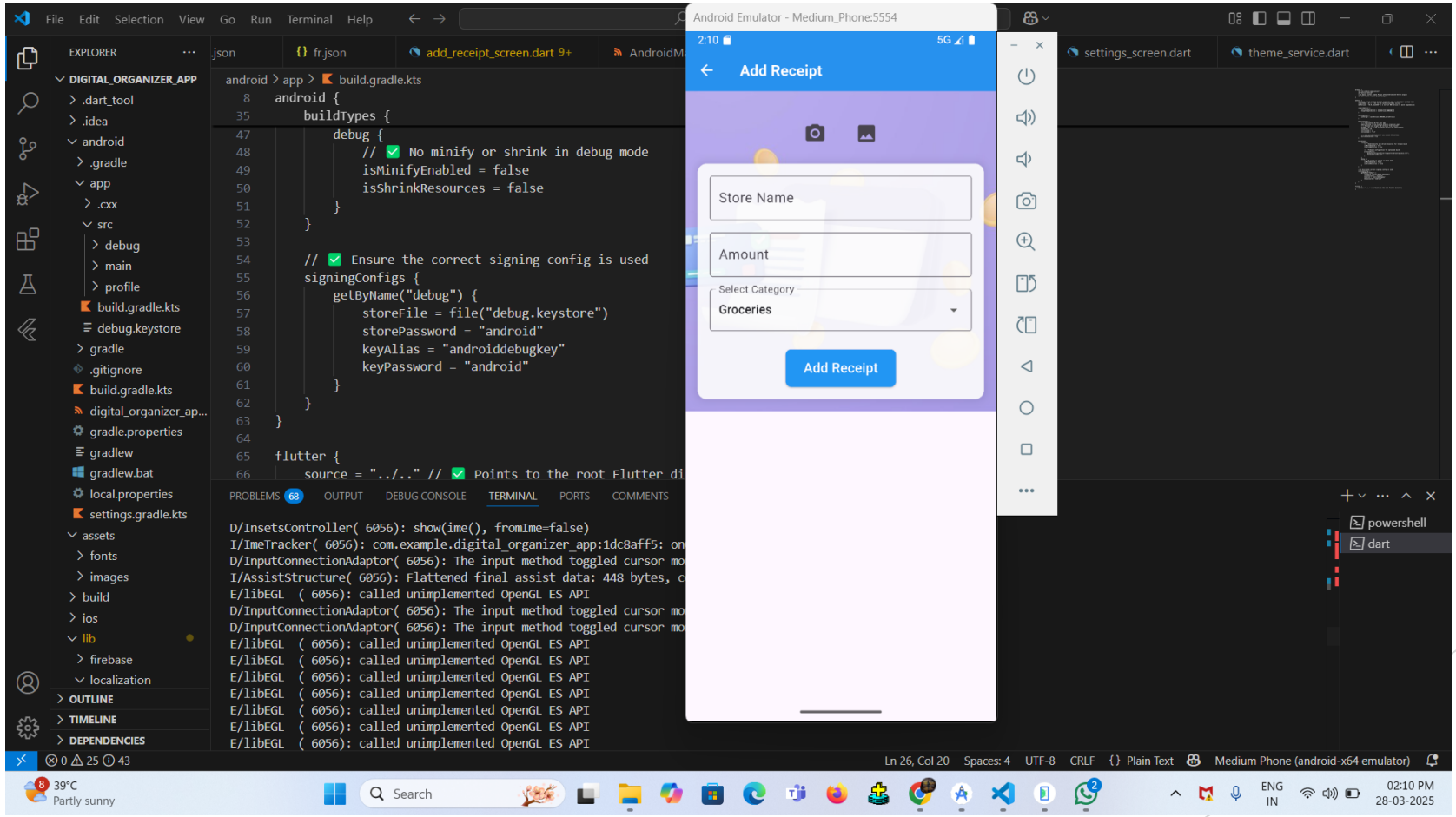
Output Screenshots for Android Emulator

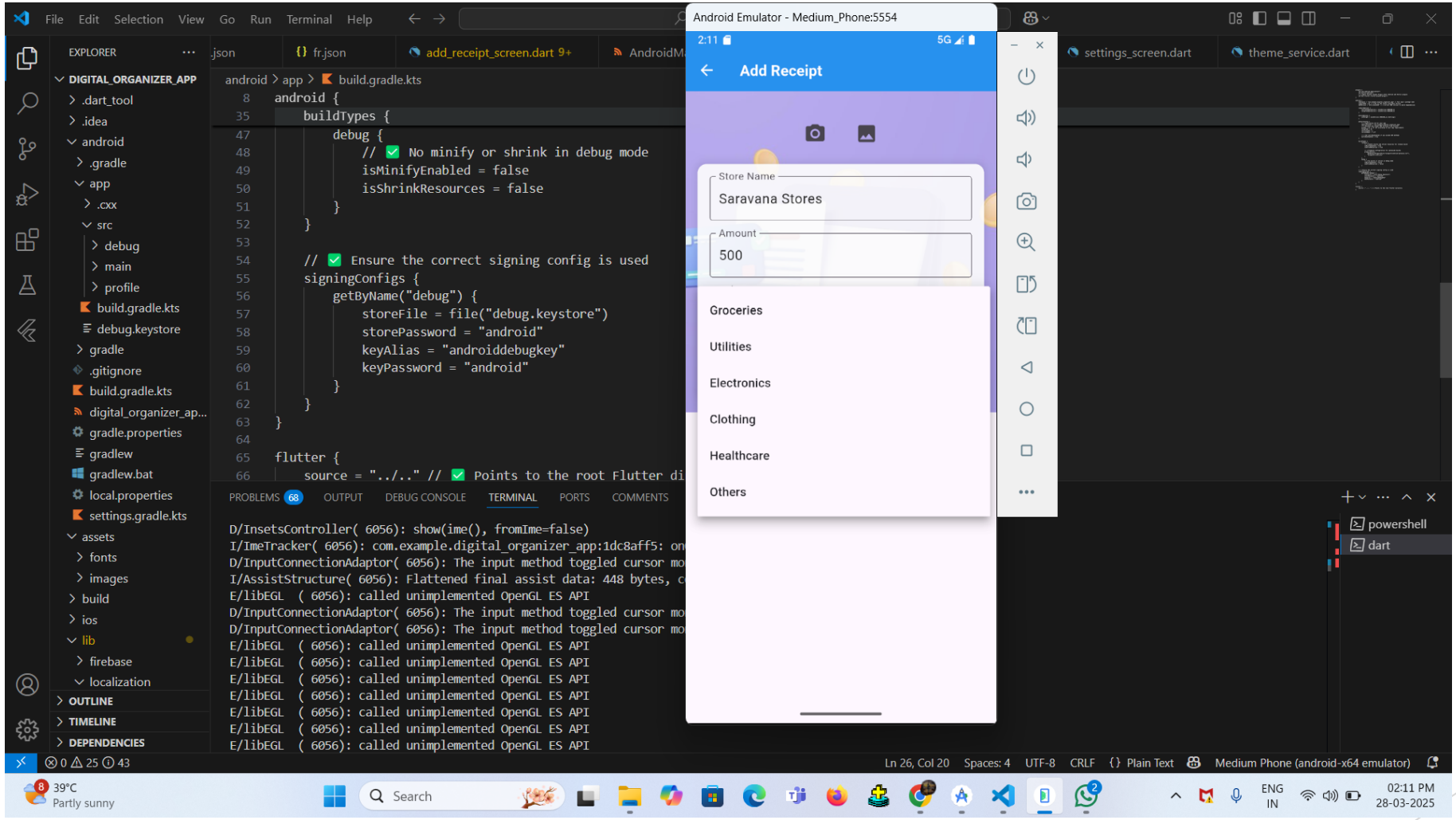


Receipts Page In Android Emulator



Adding Receipts Page In Android Emulator




File Edit Selection View Go Run Terminal Help
EXPLORER
DIGITAL_ORGANIZER_APP
.dart_tool
.idea
android
.gradle
app
.cxx
src
debug
main
profile
build.gradle.kts
debug.keystore
gradle
.gitignore
build.gradle.kts
digital_organizer_ap...
gradle.properties
gradlew
gradlew.bat
local.properties
settings.gradle.kts
assets
fonts
images
build
ios
lib
firebase
localization
OUTLINE
TIMELINE
DEPENDENCIES
.json
fr.json
add_receipt_screen.dart 9+
settings_screen.dart
theme_service.dart
android > app > build.gradle.kts
android {
buildTypes {
debug {
// No minify or shrink in debug mode
isMinifyEnabled = false
isShrinkResources = false
}
}
// Ensure the correct signing config is used
signingConfigs {
getByName("debug") {
storeFile = file("debug.keystore")
storePassword = "android"
keyAlias = "androiddebugkey"
keyPassword = "android"
}
}
}
flutter {
source = "../.." // Points to the root Flutter di
PROBLEMS 68
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
COMMENTS
D/InsetsController(6056): show(ime(), fromIme=false)
I/ImeTracker(6056): com.example.digital_organizer_app:1dc8aff5: on
D/InputConnectionAdaptor(6056): The input method toggled cursor mo
I/AssistStructure(6056): Flattened final assist data: 448 bytes, c
E/libEGL (6056): called unimplemented OpenGL ES API
D/InputConnectionAdaptor(6056): The input method toggled cursor mo
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E/libEGL (6056): called unimplemented OpenGL ES API
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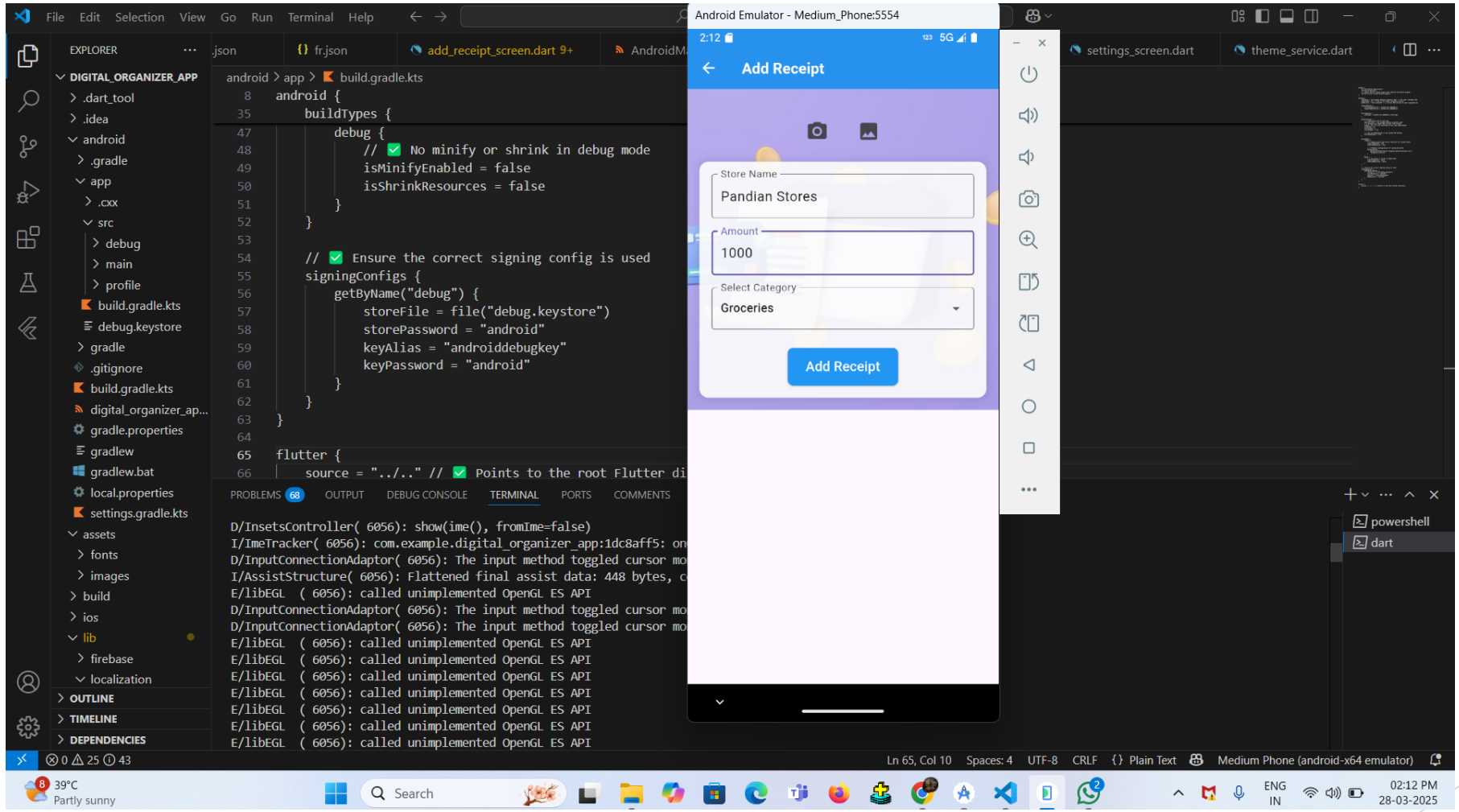
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
powershell
dart
Ln 26, Col 20
Spaces: 4
UTF-8
CRLF
Plain Text
Medium Phone (android-x64 emulator)
Android Emulator - Medium_Phone:5554
2:11
5G
Add Receipt
Store Name
Saravana Stores
Amount
500
Groceries
Utilities
Electronics
Clothing
Healthcare
Others
39°C
Partly sunny
Search
ENG
IN
02:11 PM
28-03-2025


File Edit Selection View Go Run Terminal Help
EXPLORER
DIGITAL_ORGANIZER_APP
.dart_tool
.idea
android
.gradle
app
.cxx
src
debug
main
profile
build.gradle.kts
debug.keystore
gradle
.gitignore
build.gradle.kts
digital_organizer_ap...
gradle.properties
gradlew
gradlew.bat
local.properties
settings.gradle.kts
assets
fonts
images
build
ios
lib
firebase
localization
OUTLINE
TIMELINE
DEPENDENCIES
.json
fr.json
add_receipt_screen.dart 9+
settings_screen.dart
theme_service.dart
android > app > build.gradle.kts
8 android {
35 buildTypes {
47 debug {
48 // ✅ No minify or shrink in debug mode
49 isMinifyEnabled = false
50 isShrinkResources = false
51 }
52 }
53
54 // ✅ Ensure the correct signing config is used
55 signingConfigs {
56 getByName("debug") {
57 storeFile = file("debug.keystore")
58 storePassword = "android"
59 keyAlias = "androiddebugkey"
60 keyPassword = "android"
61 }
62 }
63 }
64
65 flutter {
66 source = "../.." // ✅ Points to the root Flutter di
PROBLEMS 68 OUTPUT DEBUG CONSOLE TERMINAL PORTS COMMENTS
D/InsetsController(6056): show(ime(), fromIme=false)
I/ImeTracker(6056): com.example.digital_organizer_app:1dc8aff5: on
D/InputConnectionAdaptor(6056): The input method toggled cursor mo
I/AssistStructure(6056): Flattened final assist data: 448 bytes, c
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E/libEGL (6056): called unimplemented OpenGL ES API
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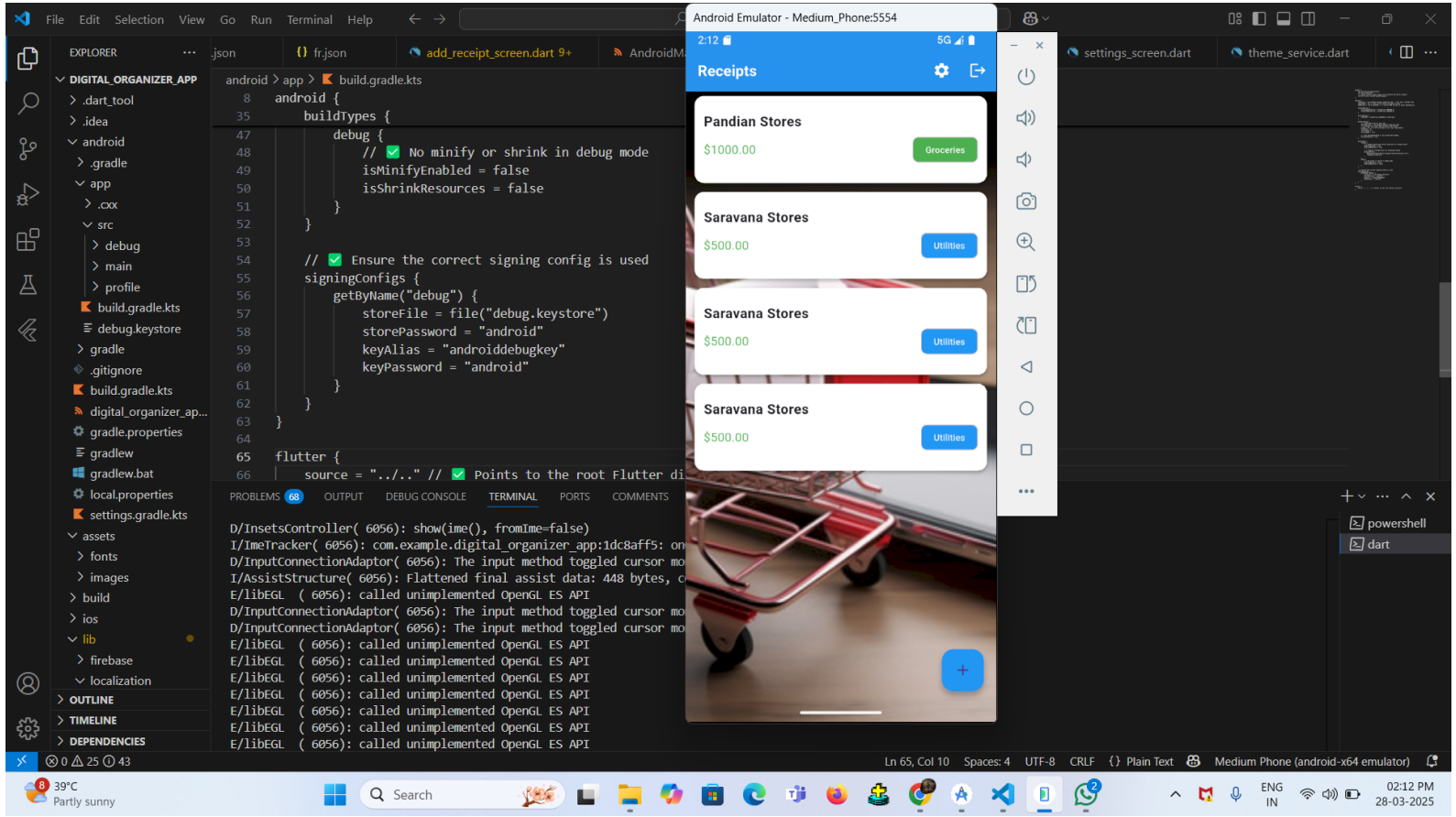
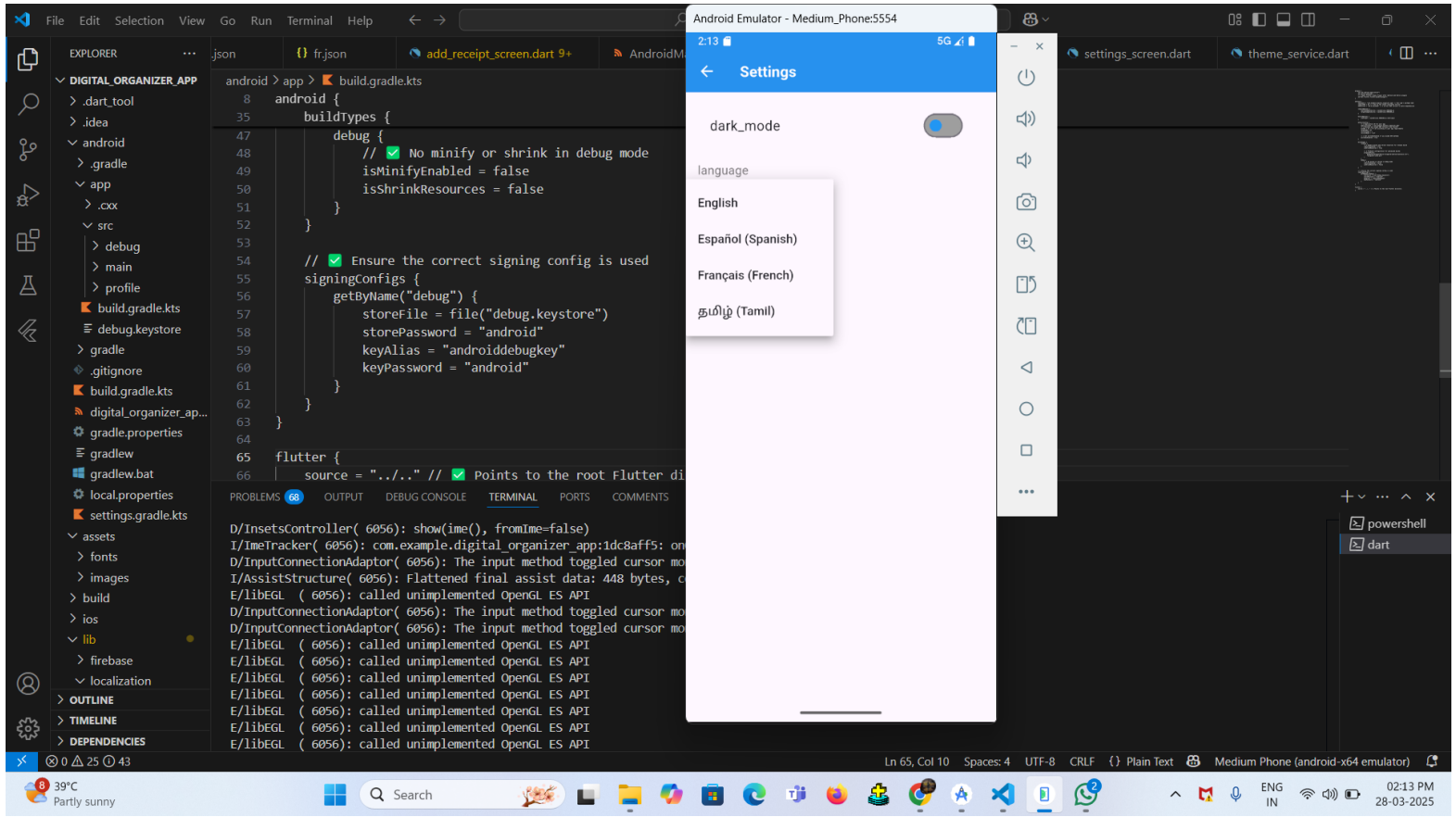
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
powershell
dart
Ln 65, Col 10 Spaces: 4 UTF-8 CRLF {} Plain Text Medium Phone (android-x64 emulator)
Android Emulator - Medium_Phone:5554
2:12 5G
Add Receipt
Store Name
Pandian Stores
Amount
1000
Select Category
Groceries
Add Receipt
39°C
Partly sunny
Search
ENG
IN
02:12 PM
28-03-2025

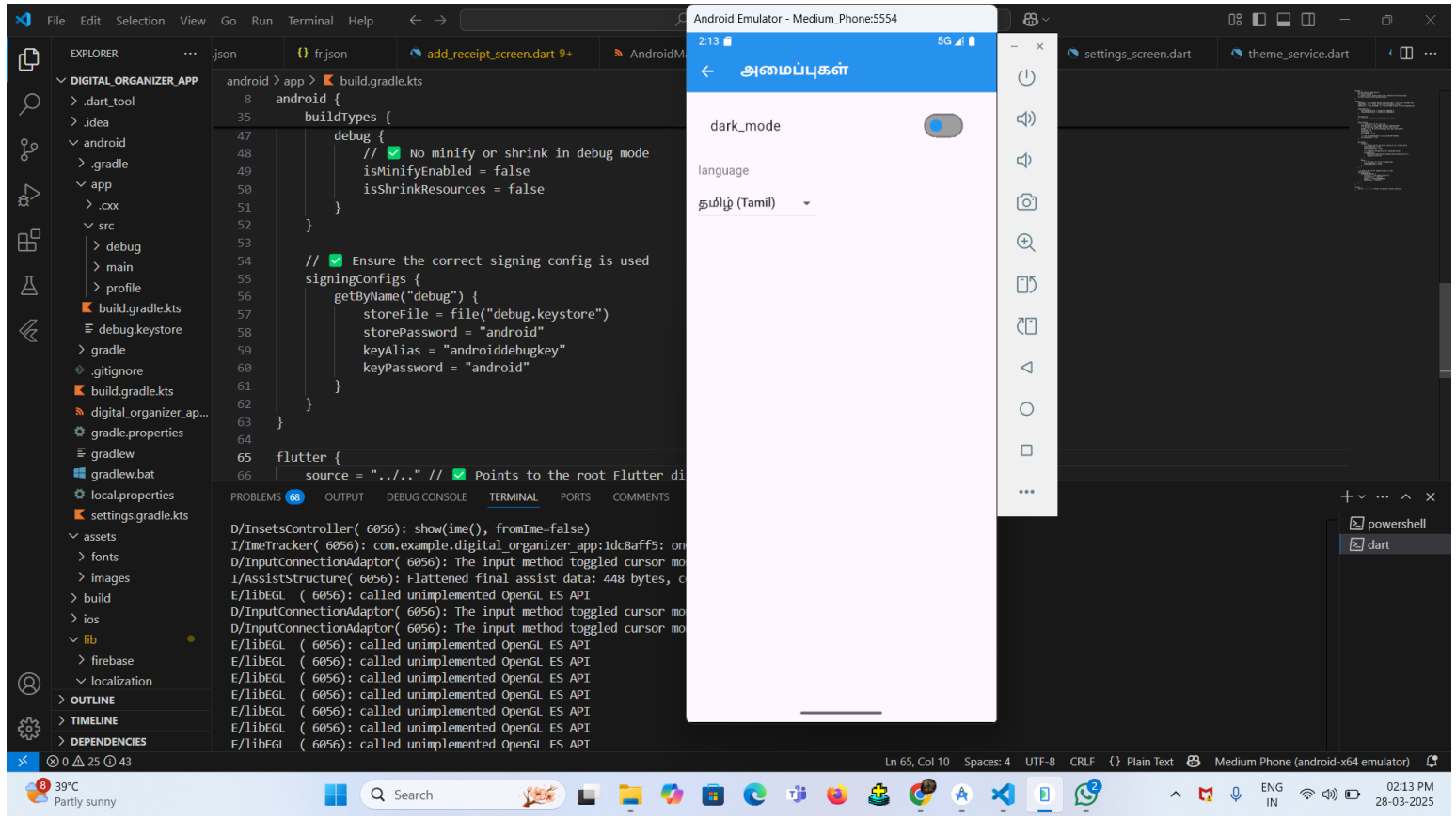
Added Receipts Displayed in Home Page

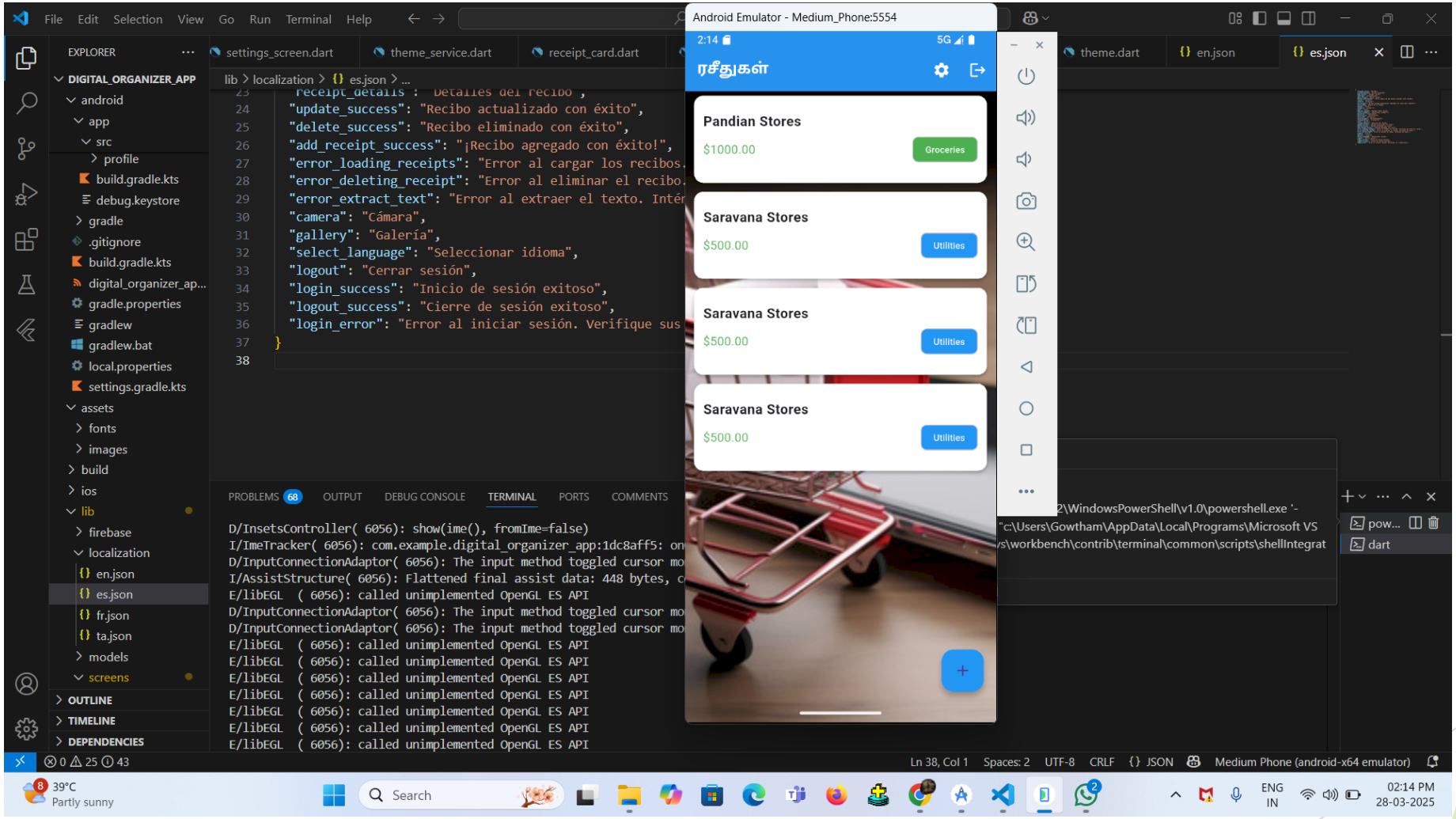


Choosing Diff. Language in Settings Page



Once the Lang. choosen….it translates and reflects in all pages




File Edit Selection View Go Run Terminal Help
EXPLORER
DIGITAL_ORGANIZER_APP
settings_screen.dart
theme_service.dart
receipt_card.dart
theme.dart
en.json
es.json
lib > localization > es.json > ...
"update_success": "Recibo actualizado con éxito",
"delete_success": "Recibo eliminado con éxito",
"add_receipt_success": "¡Recibo agregado con éxito!",
"error_loading_receipts": "Error al cargar los recibos.
"error_deleting_receipt": "Error al eliminar el recibo.
"error_extract_text": "Error al extraer el texto. Intér
"camera": "Cámara",
"gallery": "Galería",
"select_language": "Seleccionar idioma",
"logout": "Cerrar sesión",
"login_success": "Inicio de sesión exitoso",
"logout_success": "Cierre de sesión exitoso",
"login_error": "Error al iniciar sesión. Verifique sus
}
PROBLEMS 68
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
COMMENTS
D/InsetsController(6056): show(ime(), fromIme=false)
I/ImeTracker(6056): com.example.digital_organizer_app:1dc8aff5: on
D/InputConnectionAdaptor(6056): The input method toggled cursor mo
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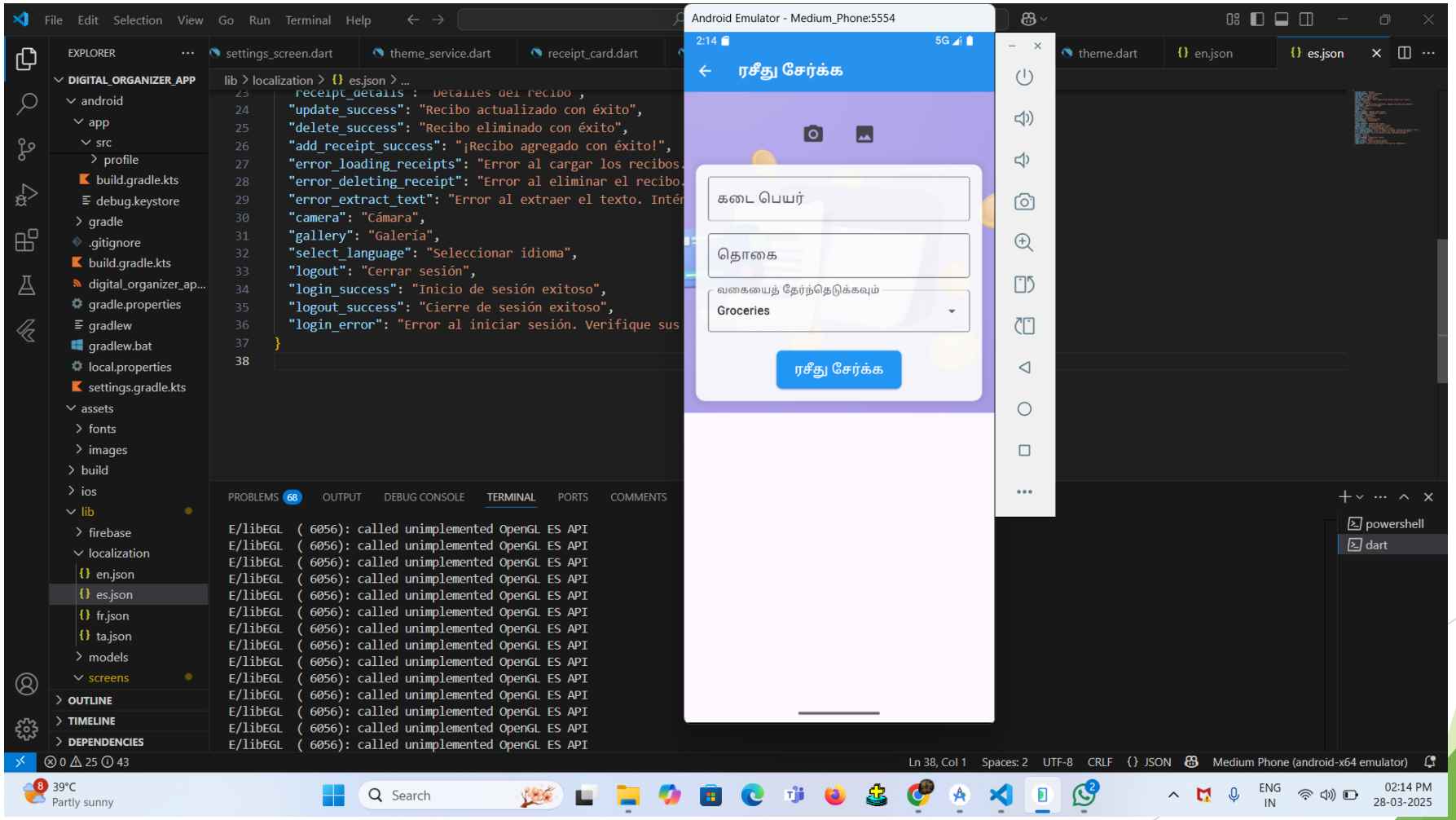
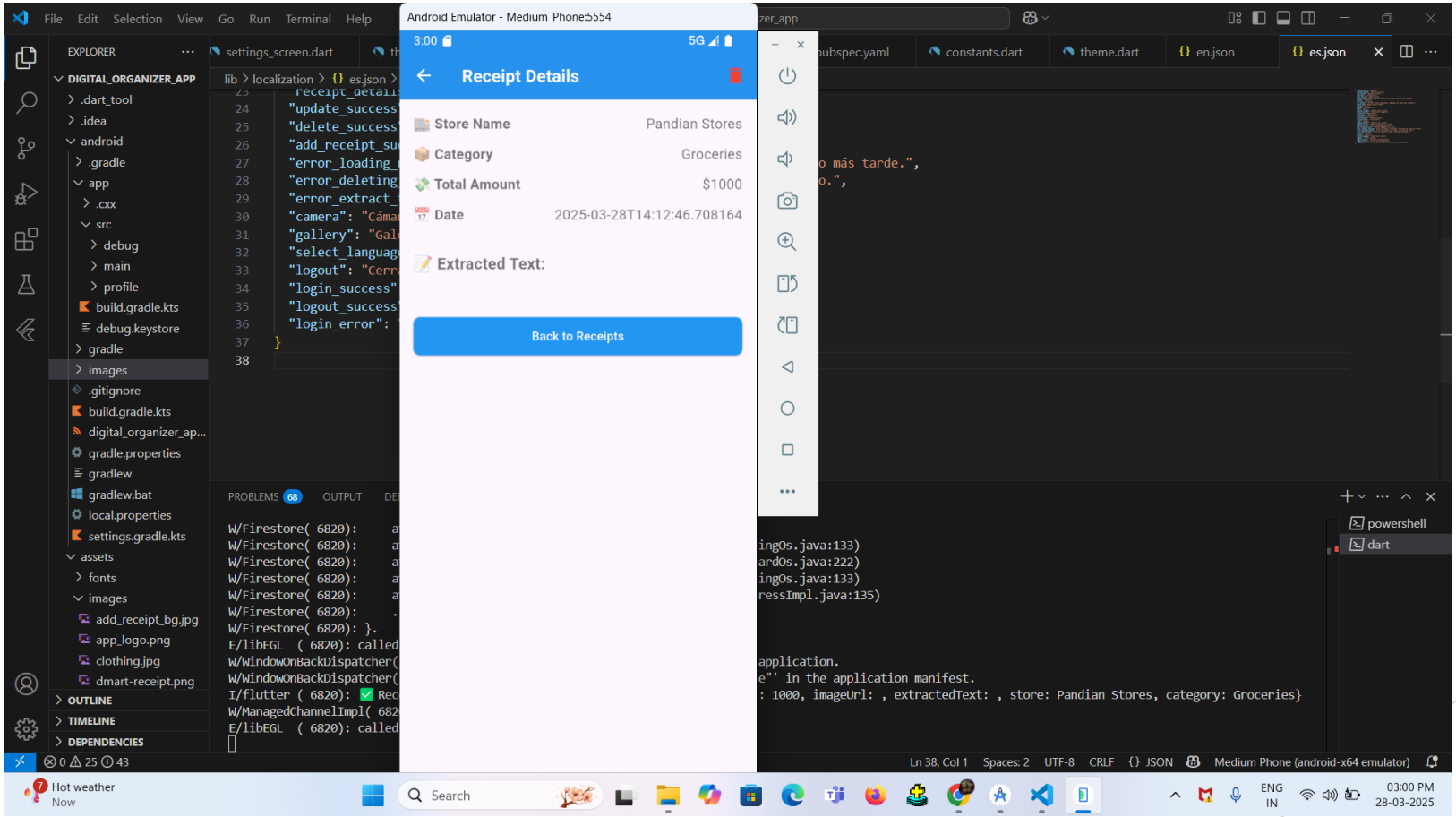
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
E/libEGL (6056): called unimplemented OpenGL ES API
Android Emulator - Medium_Phone:5554
2:14
5G
ரசீதுகள்
Pandian Stores
$1000.00
Groceries
Saravana Stores
$500.00
Utilities
Saravana Stores
$500.00
Utilities
Saravana Stores
$500.00
Utilities
Ln 38, Col 1
Spaces: 2
UTF-8
CRLF
JSON
Medium Phone (android-x64 emulator)
39°C
Partly sunny
Search
ENG
IN
02:14 PM
28-03-2025

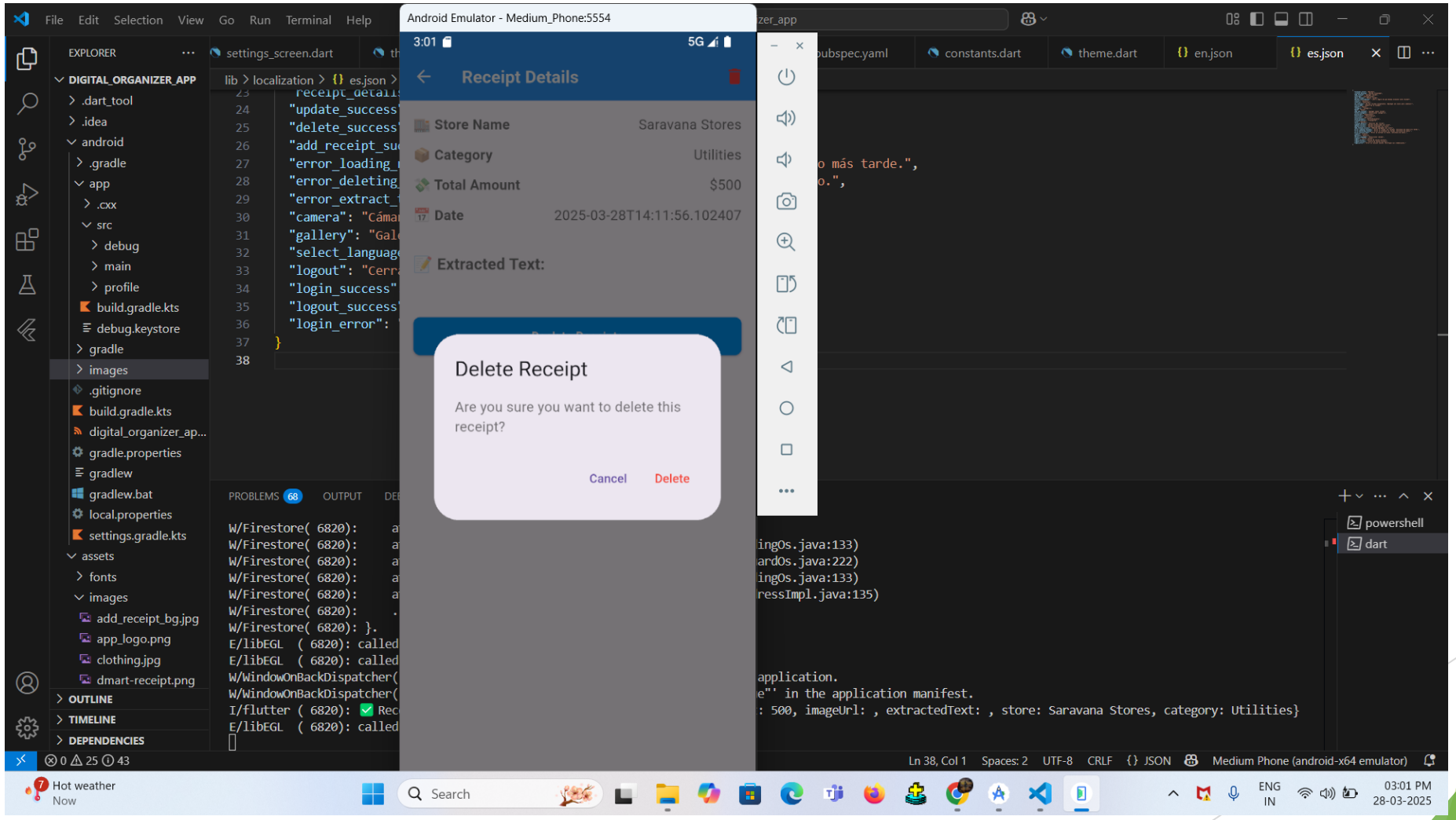
Filling the fields in their Language(Tamil)……by Localization.



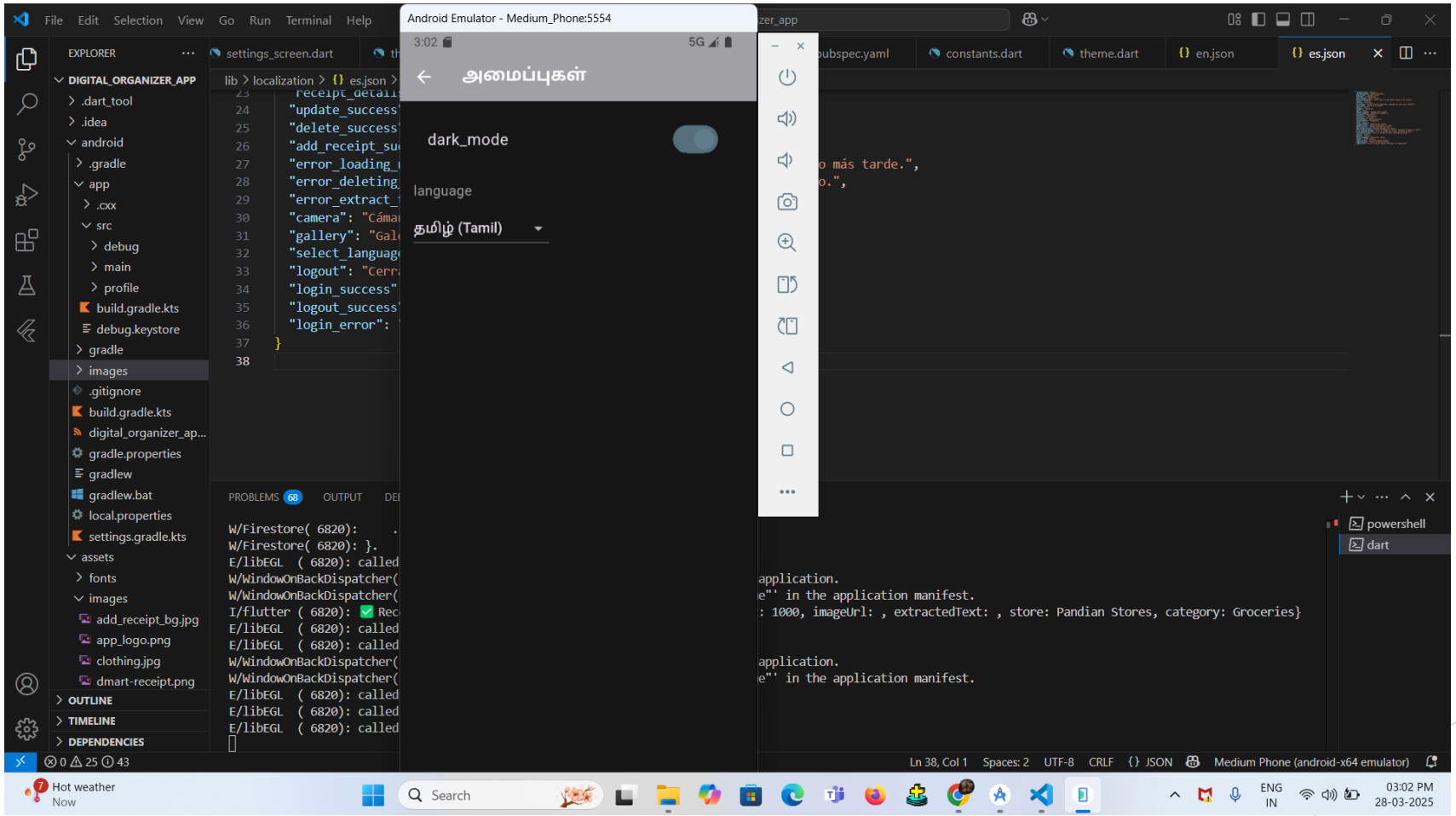
Receipt details….will be shown when we click the particular receipt….available



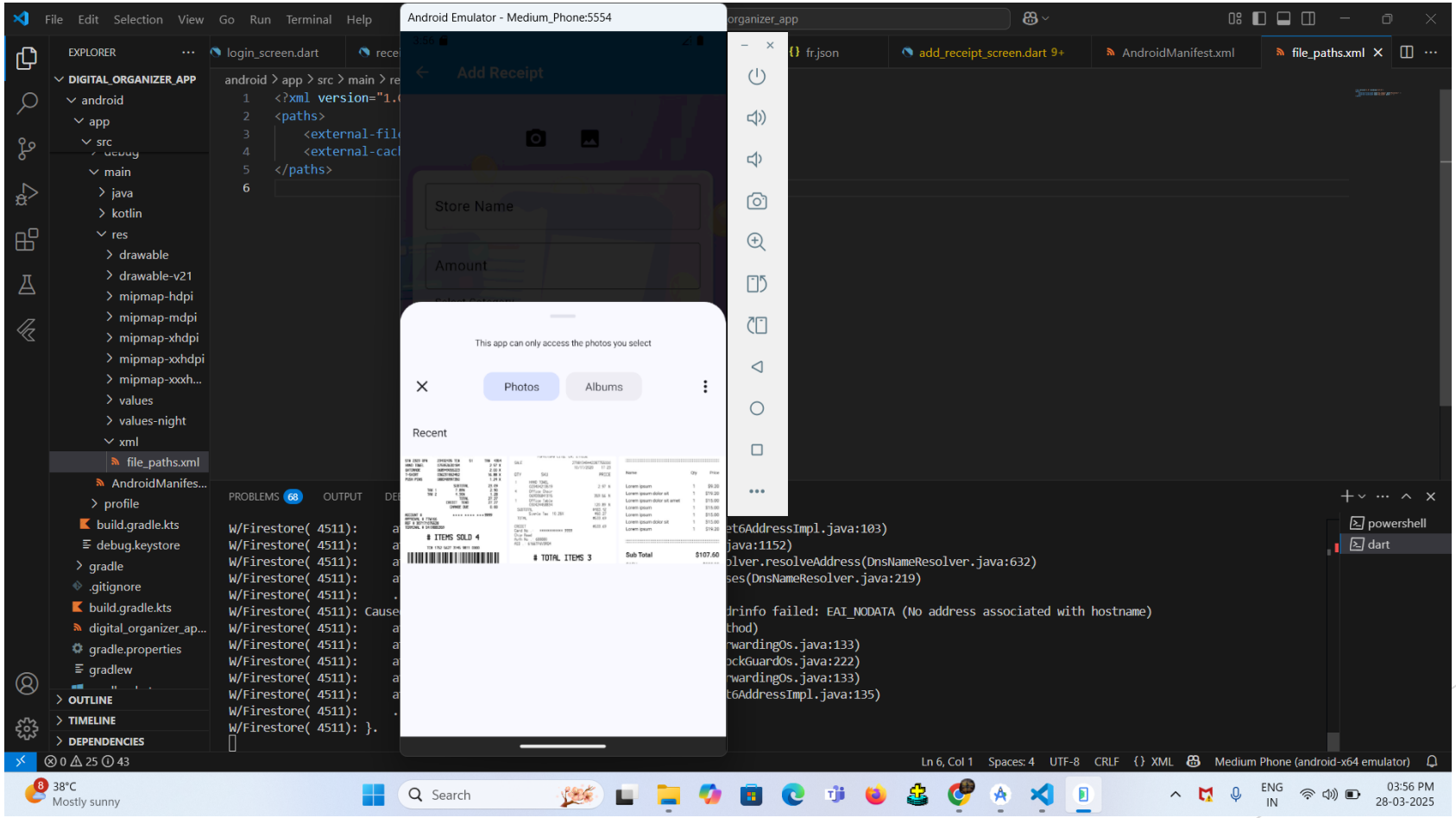
Deleting receipts if not needed…



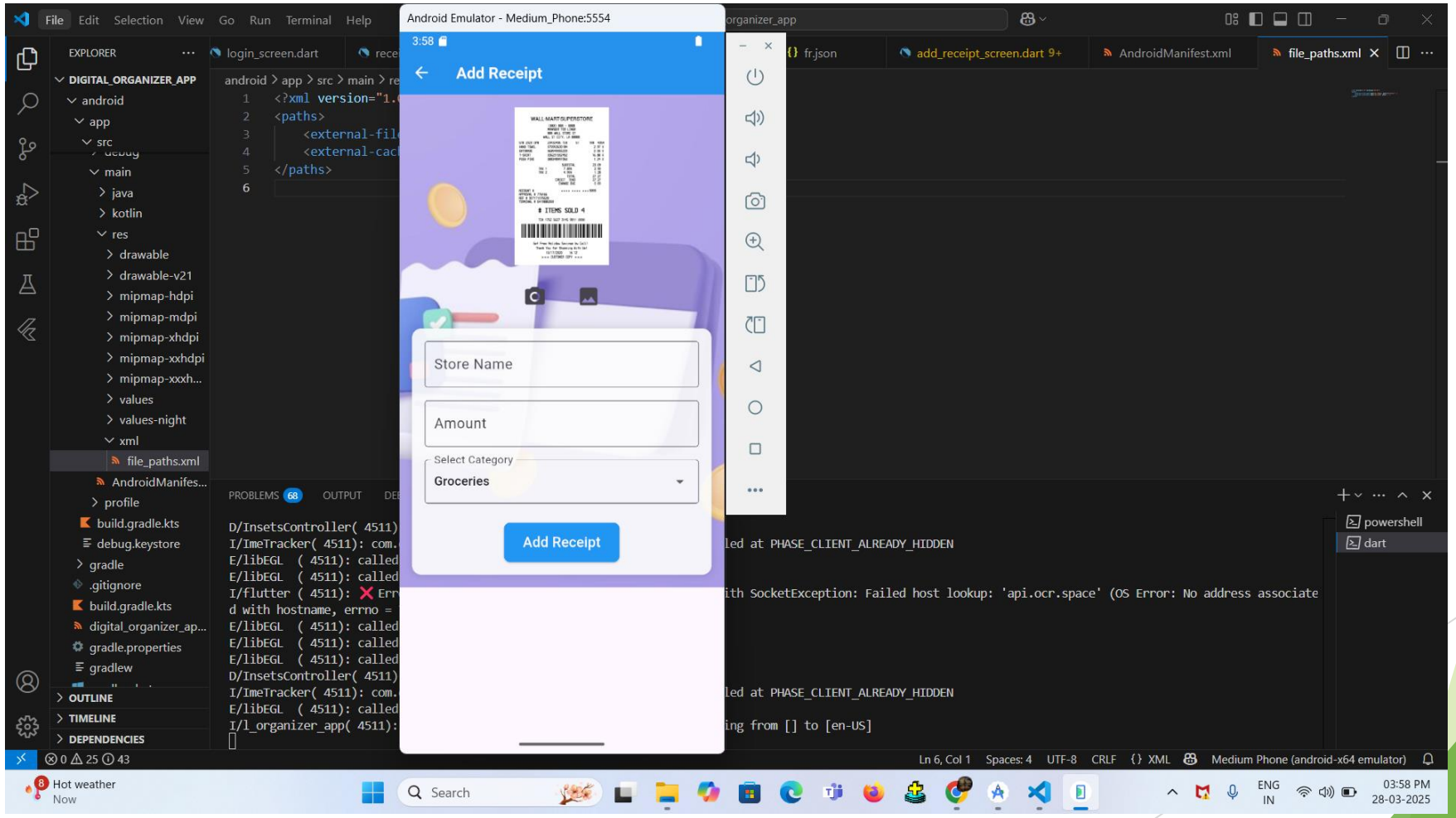
Changing the Light theme to Dark Mode Enabling….in settings page



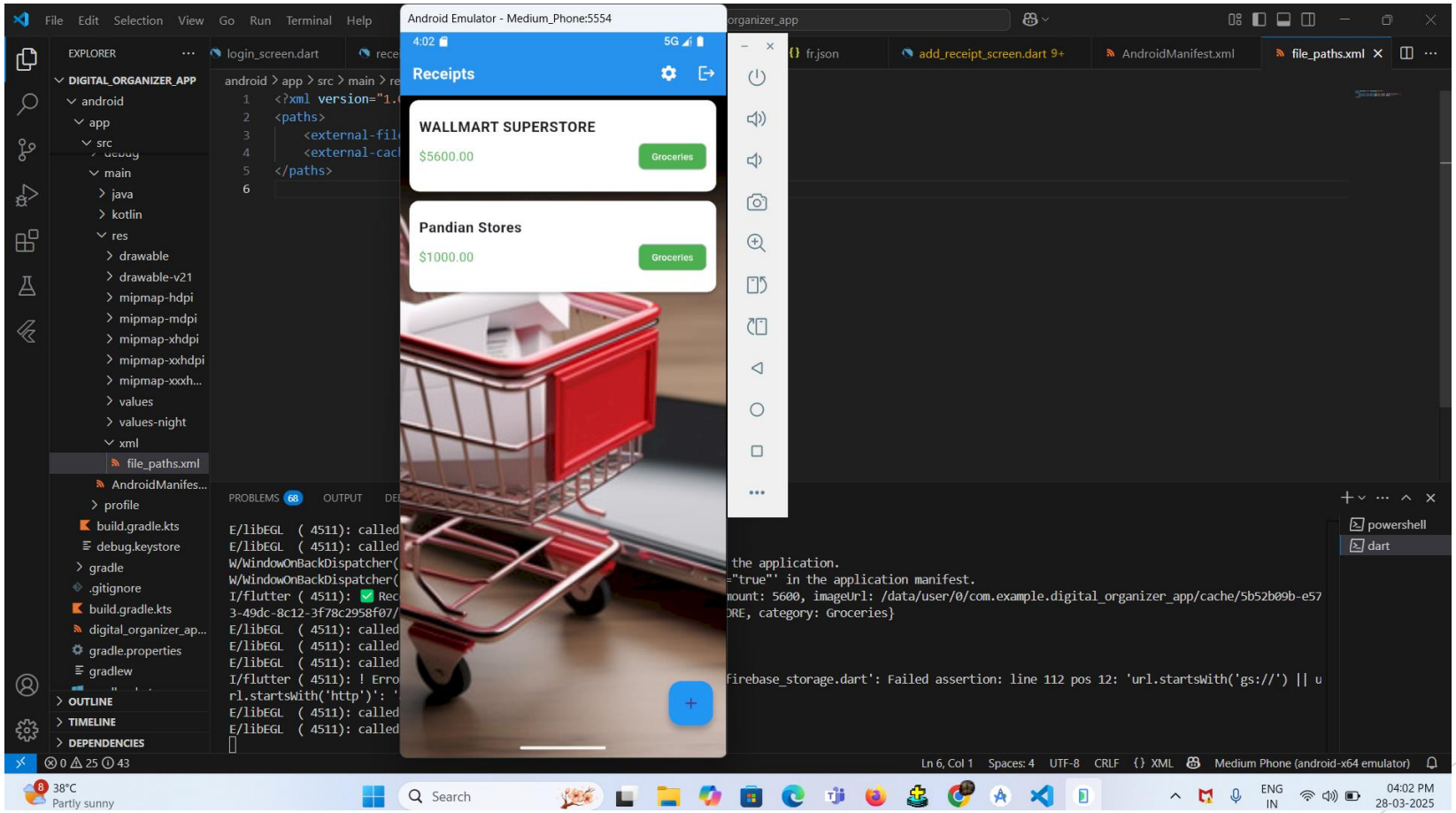
Adding receipts by OCR API calling….(Ocr-Optical character recognition)……->it will extract the text in the receipt and store it in firebase



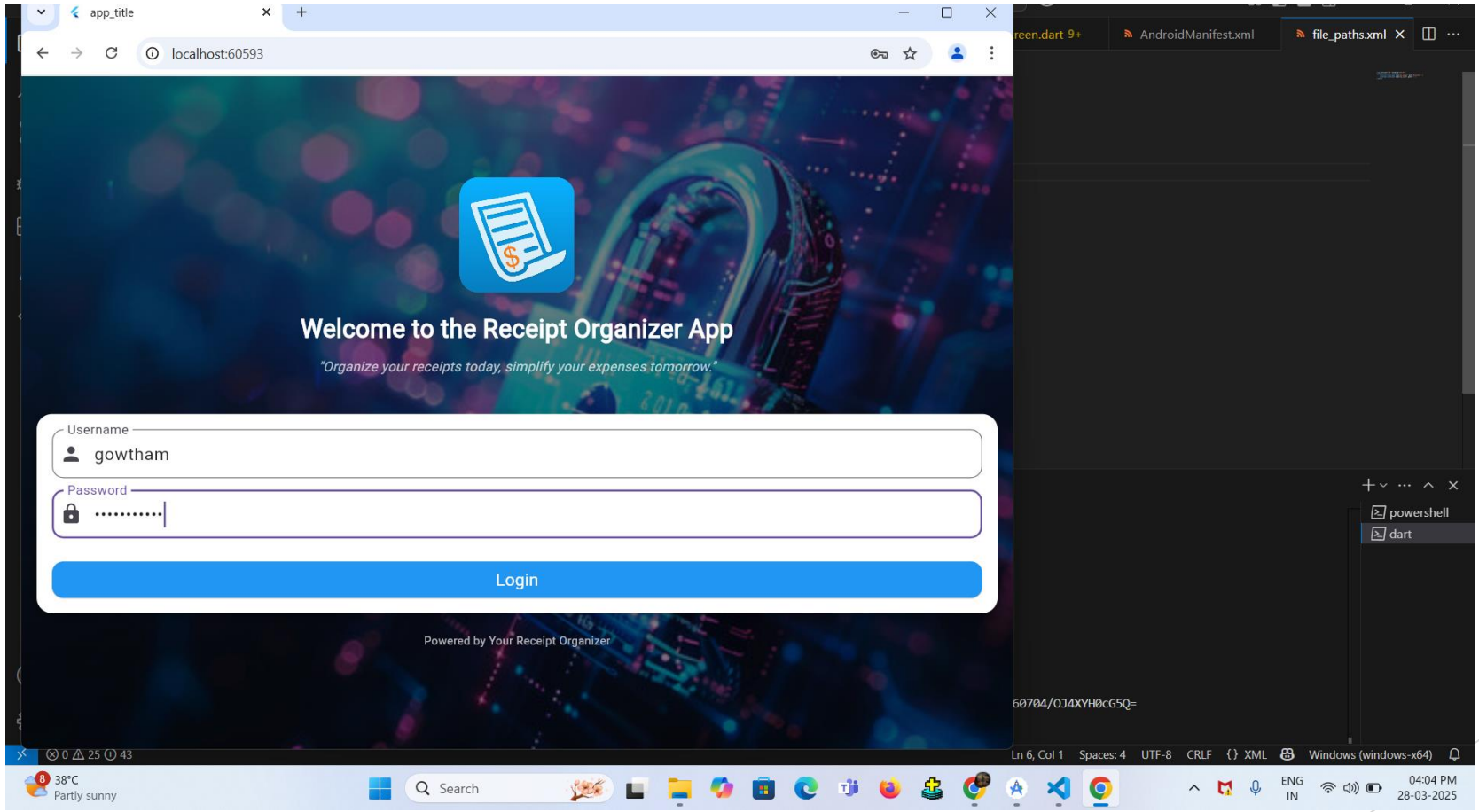
Adding receipts by uploading images from android……



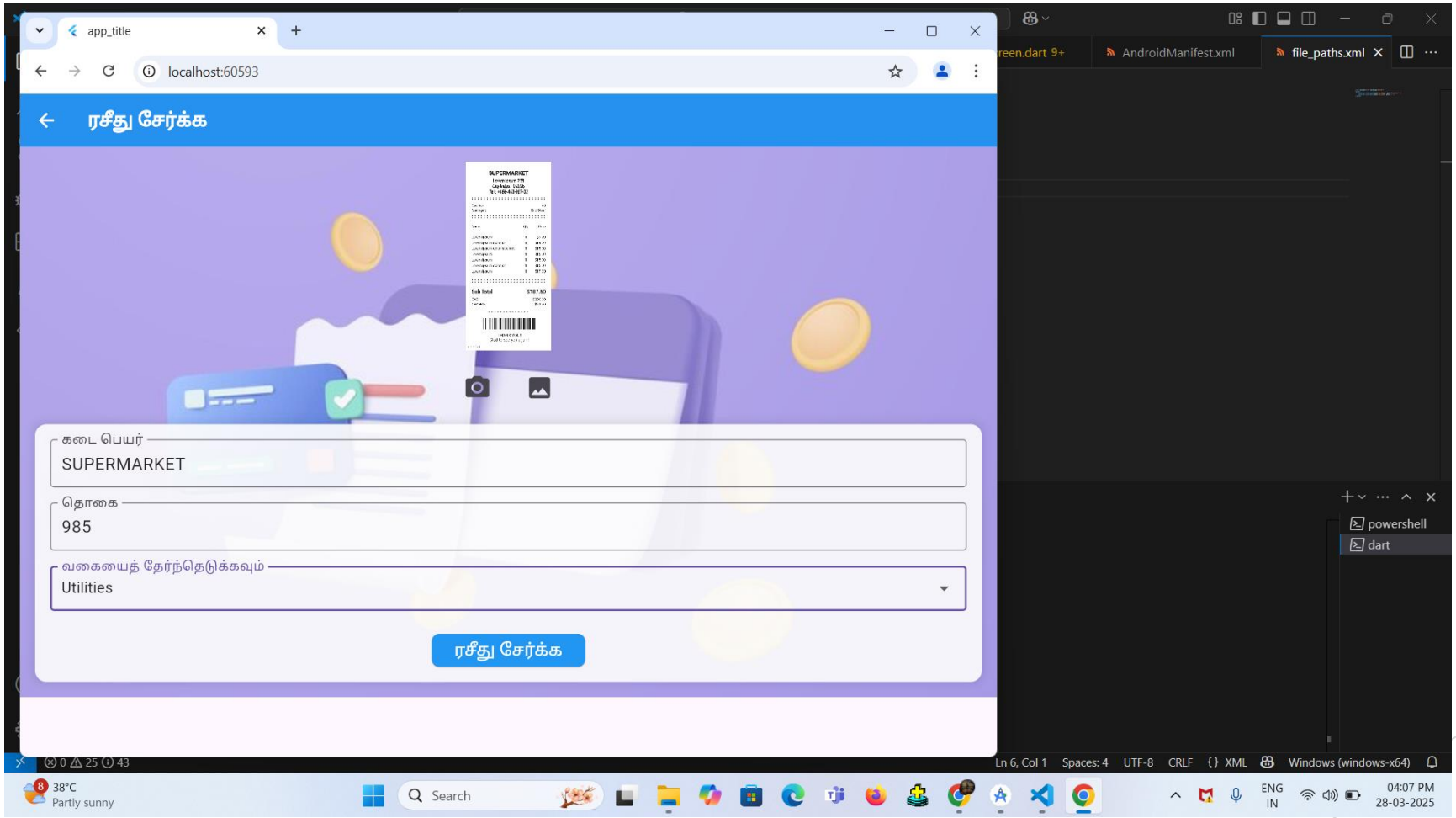
The added receipt by image will be shown in Home(Receipts Page)



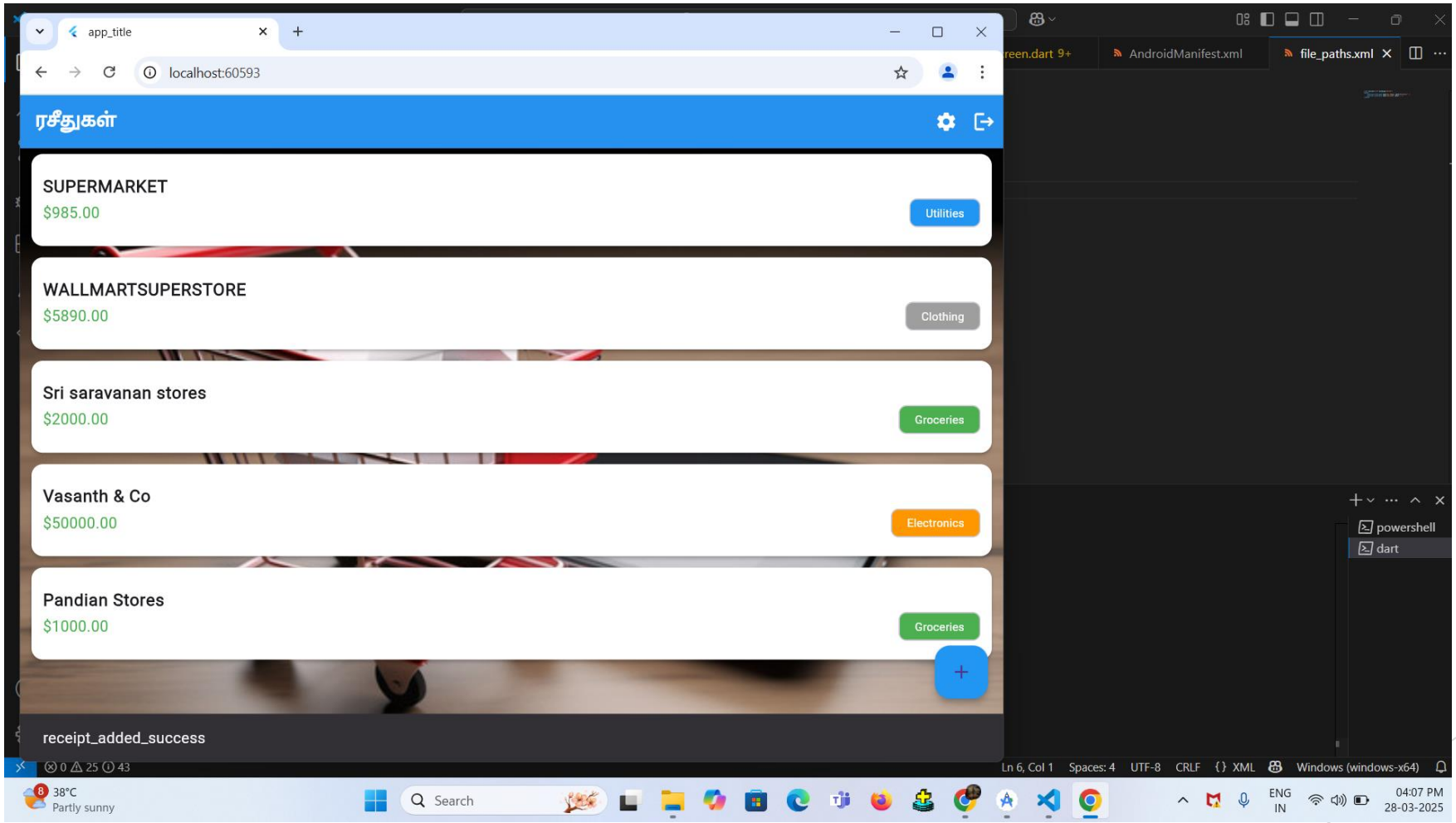
App running in Web (Chrome) for a elaborated view…



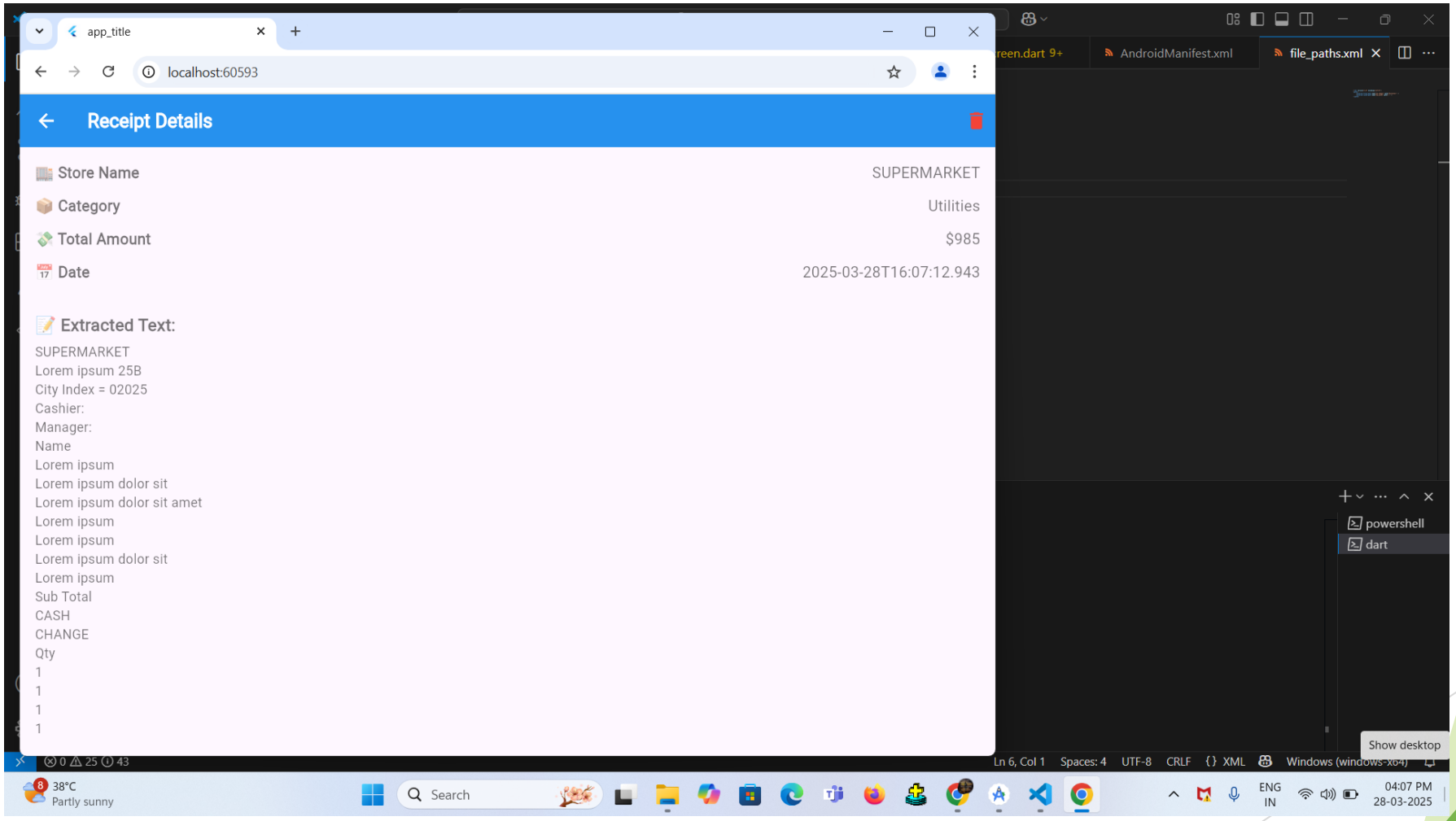
Web View


app_title
localhost:60593
ரசீது சேர்க்க
கடை பெயர்
SUPERMARKET
தொகை
985
வகையைத் தேர்ந்தெடுக்கவும்
Utilities
ரசீது சேர்க்க
AndroidManifest.xml
file_paths.xml
powershell
dart
Ln 6, Col 1
Spaces: 4
UTF-8
CRLF
XML
Windows (windows-x64)
38°C
Partly sunny
Search
ENG
IN
04:07 PM
28-03-2025

Web View


app_title
localhost:60593
ரசீதுகள்
SUPERMARKET
$985.00
Utilities
WALLMARTSUPERSTORE
$5890.00
Clothing
Sri saravanan stores
$2000.00
Groceries
Vasanth & Co
$50000.00
Electronics
Pandian Stores
$1000.00
Groceries
receipt_added_success
AndroidManifest.xml
file_paths.xml
powershell
dart
Ln 6, Col 1
Spaces: 4
UTF-8
CRLF
XML
Windows (windows-x64)
38°C
Partly sunny
Search
ENG
IN
04:07 PM
28-03-2025

Web View


app_title
localhost:60593
Receipt Details
Store Name
SUPERMARKET
Category
Utilities
Total Amount
$985
Date
2025-03-28T16:07:12.943
Extracted Text:
SUPERMARKET
Lorem ipsum 25B
City Index = 02025
Cashier:
Manager:
Name
Lorem ipsum
Lorem ipsum dolor sit
Lorem ipsum dolor sit amet
Lorem ipsum
Lorem ipsum
Lorem ipsum dolor sit
Lorem ipsum
Sub Total
CASH
CHANGE
Qty
1
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1
AndroidManifest.xml
file_paths.xml
powershell
dart
Show desktop
Ln 6, Col 1
Spaces: 4
UTF-8
CRLF
XML
Windows (windows-x64)
38°C
Partly sunny
Search
ENG
IN
04:07 PM
28-03-2025

Conclusion

- The **Digital Receipt Organizer** is a powerful and user-friendly app that simplifies receipt management through OCR-based scanning, automatic categorization, and secure cloud storage. With seamless Firebase integration, real-time updates, and multi-language support, the app ensures a smooth and personalized user experience. The addition of swipe gestures, theming, and adds extra value for users. Overall, this app provides an efficient and secure solution for organizing and managing receipts effortlessly.