Upgradation of Jan-Dhan Darshak App

Domain Bucket : Software - Mobile App development
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Problem Statement

The Department of Financial Services (DFS), Ministry of Finance and National Informatics Centre (NIC) have jointly developed a mobile app called Jan Dhan Darshak as a part of financial inclusion (FI) initiative. As the name suggests, this application acts as a guide for the common people in locating a financial service touch point at a given location in the country. Have a look at the additional application and develop an more featureful application that provides more insights and better recommendations.

Functionalities of the Existing App

In Main Page

- Fetches users location using GPS on launching the app.
- Allows users to locate ATMs, Branch, Bank Mitra, Post Ofiice, CSC on the map.
- Enables users to view details of the selected object on the map.
- Allows users to switch languages between hindi and english.
- Allows users to clear graphics on the map and zoom in and zoom out.
- Results button to allow users to view list of results in the right navigation drawer.

In Navigation Drawer

- Options for users to provide feedback, missing bank suggestions, help requests, about us and disclaimer.

Features of Upgraded App

- Improved User Interface(UI) and User Experience(UX) by adding Google Maps API and reducing loading time and lagging by using caching.
- Fetches user location using network as well as GPS on launching the app.
- Allows users to locate ATMs, Branch, Bank Mitra, Post Office, CSC on the map.
- Supports 5 different regional languages specifically Hindi, English, Bengali, Gujarati and Urdu.
- Allows users to search for ATMs, Bank Mitra, Branch, PO and CSC using voice search enabled by Google Voice Assistant.
- Supports Voice Search functionality in 5 different regional laguages specifically English, Hindi, Urdu, Bengali and Gujarati.
- Allows users to add locations(ATMs, Bank Mitra, Branch, PO, CSC) to favourites.

- Allows users to get directions and navigate to a ATM, Bank, Branch, PO or CSC.

- The Google Maps SDK and Location History(by Google) can be used to interact with user locations and maps. The Location module will allow the application to keep track of users location in real time and help in navigation.

- Improved UI for results list available for search query to the users.

- Filter feature to allow users to filter and better suggestions sorted by Relevance, Distance and Working Hours.

- Improved layout of details page available on selecting objects(ATMs, Bank Mitra, Branches, PO, CSC) including images, reviews, directions along with details already available in Jan Dhan Darshak app.

- The Bank Details such as Bank Branch Name, IFSC and BSR code will be fetched from Razorpay IFSC Toolkit API.

- The app will also provide a call option to enable user to call a bank branch, PO and CSC to enquire any query.

UI Improvements

- **Map Interface:** Improved maps UI by using Google Maps API instead of ArcGIS since database of ArcGIS is not publicly available.
- **Bottom bar:** Improved layout of bottom navigation bar used to locate nearby ATMs, Banks, Branches, POs and CSC.
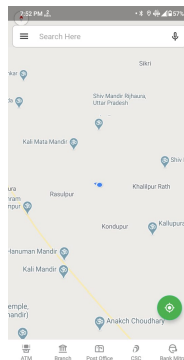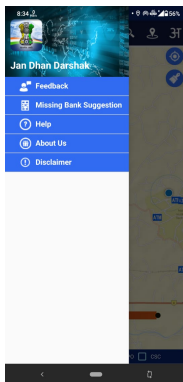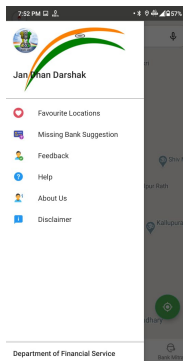

Existing UI   Improved UI

- **Navigation Drawer:** Improved Navigation Drawer layout and user experience by enabling swiping feature.
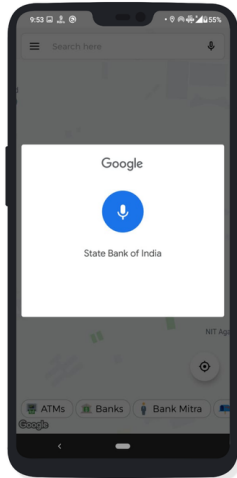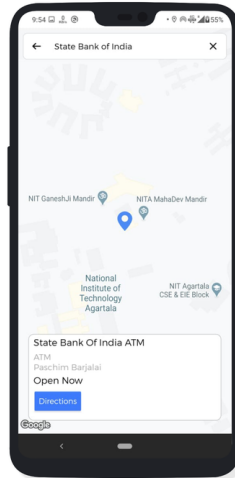

Existing Drawer   New Drawer

- **Voice Search Feature:** Allows users to search using voice search enabled by Google Voice Assistant in 5 different languages.
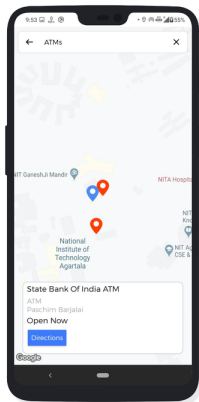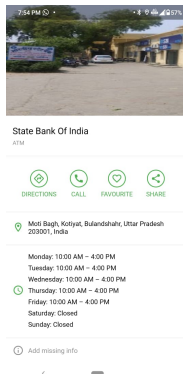

Voice Input   Search Results

- **Object Details:** This feature improvement will allow users to view more details about the selected object including images, reviews, directions along with the details already shown in Jan Dhan Darshak App.
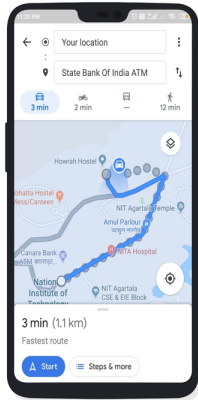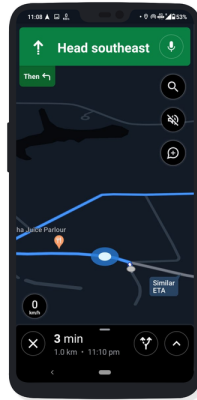

Compact Detail

Complete Detail

- **Directions and Navigation:** The app will allow users to get directions and navigate to nearby by ATMs, Bank Mitra, Branches, PO and CSC.
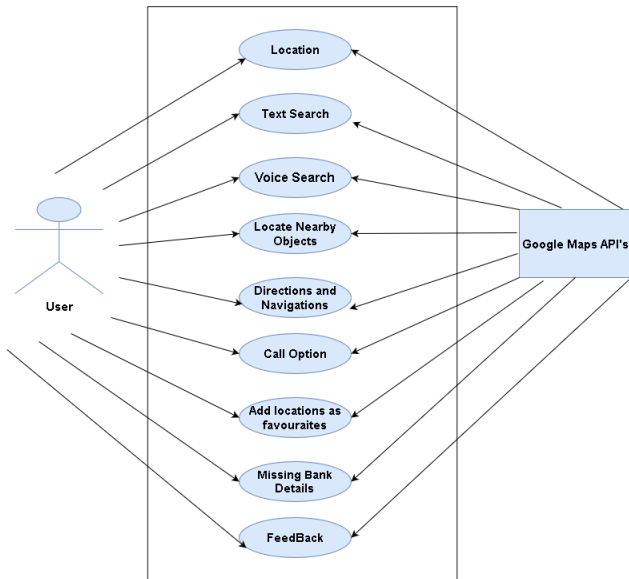

Directions

Navigation

Tech Stack

- Frontend : XML
- Backend : Kotlin
- Application Development Environment : Android Studio
- Map and Location Provider : Google Maps API
- Bank and ATM Details Provider: Razorpay IFSC Toolkit API

Use Case Diagram

Features to be implemented

- Text to speech feature.
- Giving options to user whether to use text or audio for results
- Implementing Navigation features like Add missing Banks Suggestion and Favouraite Locations and support feature etc