Android App – Local Train Info

Prepared by:

Ashish Kumar Mondal

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# Introduction

Application Name – IRCTC local train finder

This android application will help user to find local train running status from IRCTC database. Currently available android apps have lot of features which are already there in the IRCTC app and mostly useful for long distance trains. In most of the apps the running status for local train feature is not available including ITCTC app. Even if it is available, user needs to know the train number. Also user has to navigate lots of screens to get live status.

People who travel by local train are interested to the running status and timetable. This app will suit for them. Additionally it keeps track of last 10 search history from where user can access the train details quickly.

Being a local train traveler, I found lots of gaps (in terms of searching live status) in the existing apps including IRCTC app so I thought of developing this app which fetches correct data from IRCTC database. As daily passengers travel everyday so they don’t have much time to spend for checking live status or timetable. This light weight app will be perfect companion to the mentioned travelers.

Concepts used in the application development

1. How to setup environment for android project
2. How to create an android project with Navigation drawer
3. Making a network call
4. Splash screen concept
5. List view implementation with adapter
6. Button added in the listview and click event registered.
7. Network connection status check
8. Display progress screen until webservice call is complete
9. SQLLite database access
10. Singleton class has been used for data sharing across activities
11. How to create APK to release in the google play store

# Source Code

The source code is available at the following location. Interested students/learners may be interested to browse through the code to see the concepts explained below.

<https://github.com/ashismo/LocalTrainInfo>

# Explanation of the concepts being used

## How to setup environment for android project

## How to create an android project with Navigation drawer

## Making a network call

When network call is made, splash screen has been displayed in the application. Once data is fetched the splash screens disappears.

There are three network calls altogether

1. To get the list of station names
2. To get the train between stations
3. To get the running live status

## Splash screen concept

Splash screen is a window that contains an image and logo and software version. This screen appears when an application launches. Splash screen is generally used when there is a need to do some background process when an application is initiated. Background process like database call, loading of image, making a call over network. These kinds of activities will consume time and a splash screen can be shown during that time.

Splash screen is shown during the following cases in the application

1. To get the list of station names
2. To get the train between stations
3. To get the running live status

## List view implementation with adapter

Listview in android is used to listdown the dynamic records. In this application, listview is used in two cases

1. During station search it loads the close matches in the list view using ArrayAdapter
2. During searching trains between stations it uses a custom adapter

# Troubleshooting for the android project

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| --- | --- | --- |
| **SL No** | **Issue** | **Solution** |
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