

# PROJECT DOCUMENTATION

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Project Titles: NearBySearch App, Grocery App

## OBJECTIVES

















- To build an android application to search nearby business using Kotlin.
- To build an android application to make a list of groceries.

## THEORY

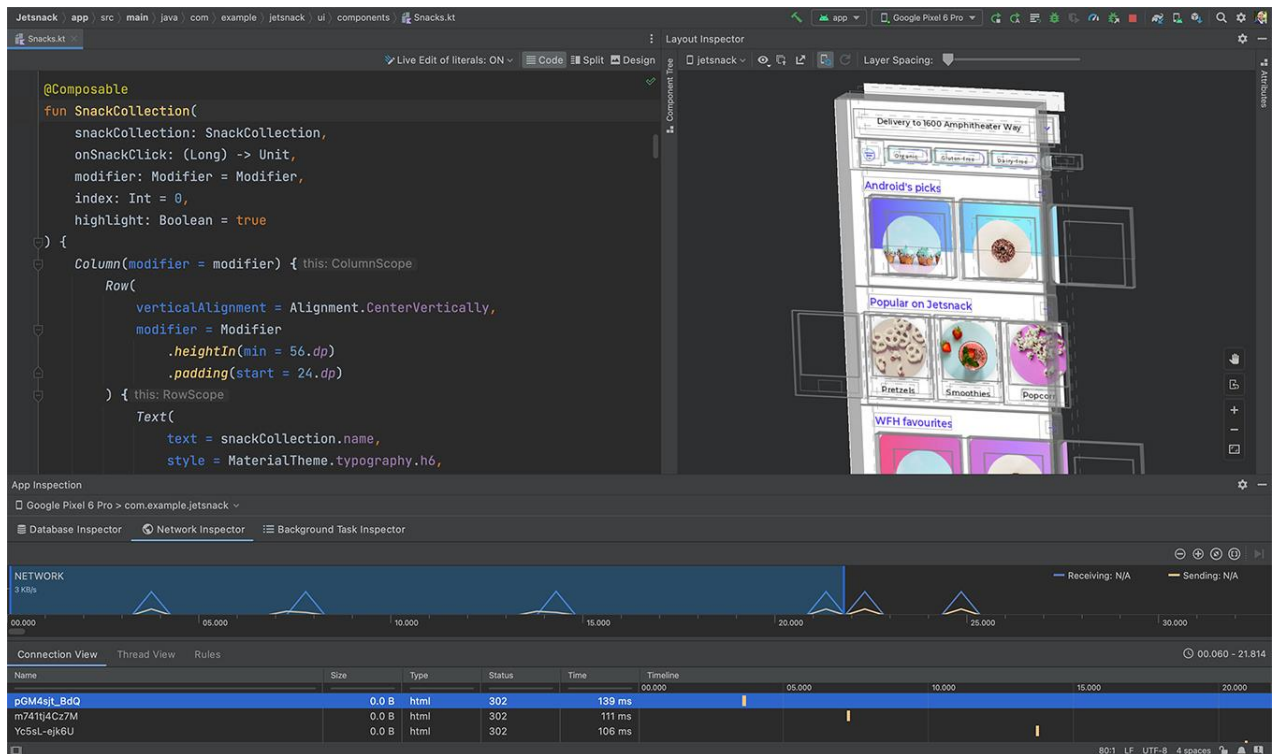
Android is a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen mobile devices such as smartphones and tablets. Android is developed by a consortium of developers known as the Open Handset Alliance and commercially sponsored by Google. It was unveiled in November 2007, with the first commercial Android device, the HTC Dream, being launched in September 2008.

Most versions of Android are proprietary. The core components are taken from the Android Open-Source Project (AOSP), which is free and open-source software (FOSS) primarily licensed under the Apache License. When Android is installed on devices, ability to modify the otherwise FOSS software is usually restricted, either by not providing the corresponding source code or preventing reinstallation through technical measures, rendering the installed version proprietary. Most Android devices ship with additional proprietary software pre-installed, most notably Google Mobile Services (GMS) which includes core apps such as Google Chrome, the digital distribution platform Google Play, and associated Google Play Services development platform.

## ANDROID VERSION LIST-A COMPLETE HISTORY AND FEATURES

<b>CUPCAKE</b> 1.5 	<b>DONUT</b> 1.6 	<b>ECLAIR</b> 2.0 	<b>FROYO</b> 2.2 	<b>GINERBREAD</b> 2.3 
<b>HONEYCOMB</b> 3.0 	<b>ICE CREAM</b> 4.0 	<b>JELLY BEAN</b> 4.1-4.3 	<b>KITKAT</b> 4.4 	<b>LOLLIPOP</b> 5.0 
<b>MARSHMALLOW</b> 6.0 	<b>NOUGAT</b> 7.0 	<b>OREO</b> 8.0 	<b>PIE</b> 9.0 	<b>Android 10</b> 
<b>Android 11</b> 				

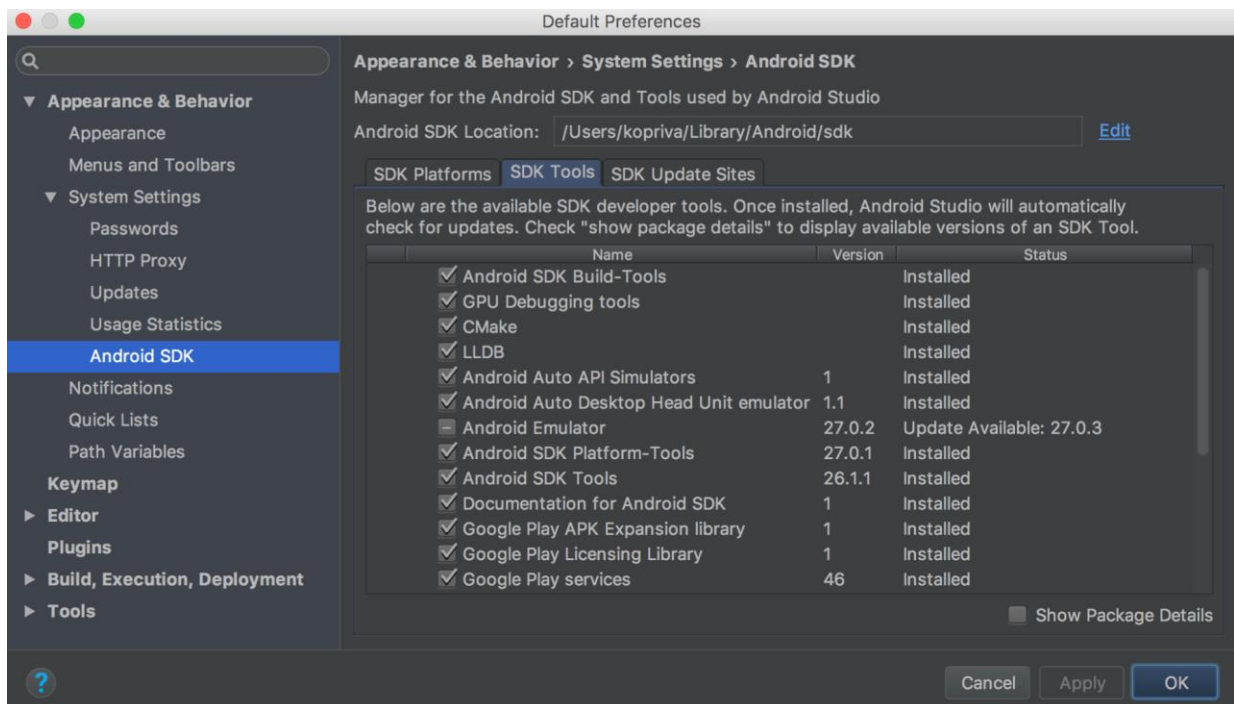
Android software development is the process by which new applications are created for the Android operating system. Applications are usually developed in the Java programming language using the Android Software Development Kit. ADT (Android Development Tools) is the software used to develop android apps. It basically encases Eclipse IDE, which is a Multilanguage Integrated development environment (IDE) comprising a base workspace and an extensible plug-in system for customizing the environment. The latest version comes with ADT plugin preinstalled and bundled to the IDE.



Application programming interface (API) specifies how some software components should interact with each other. In practice in most cases an API is a library that usually includes specification for routines, data structures, object classes, and variables. An API specification can take many forms, including an International Standard such as POSIX, vendor documentation such as the Microsoft Windows API, the libraries of a programming language, e.g., Standard Template Library in C++ or Java API.

# Google APIs

Google APIs can be downloaded from Google Code, Google's site for developer tools, APIs and technical resources. The Google Data API] allows programmers to create applications that read and write data from Google services. Currently, these include APIs for Google Apps, Google Analytics, Blogger, Google Base, Google Book Search, Google Calendar, Google Code Search, Google Earth, Google Spreadsheets, Google Notebook, and Picasa Web Albums. SDK (Software Development Kit or "devkit") is typically a set of software development tools that allows for the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform. It may be something as simple as an application programming interface (API) in the form of some files to interface to a particular programming language or include sophisticated hardware to communicate with a certain embedded system. Common tools include debugging aids and other utilities often presented in an integrated development environment (IDE). In the latest version of ADT, the android SDK adds to the IDE automatically as soon as you unzip and load the IDE. SDK Manager enables us to download Google APIs and use them in our code.



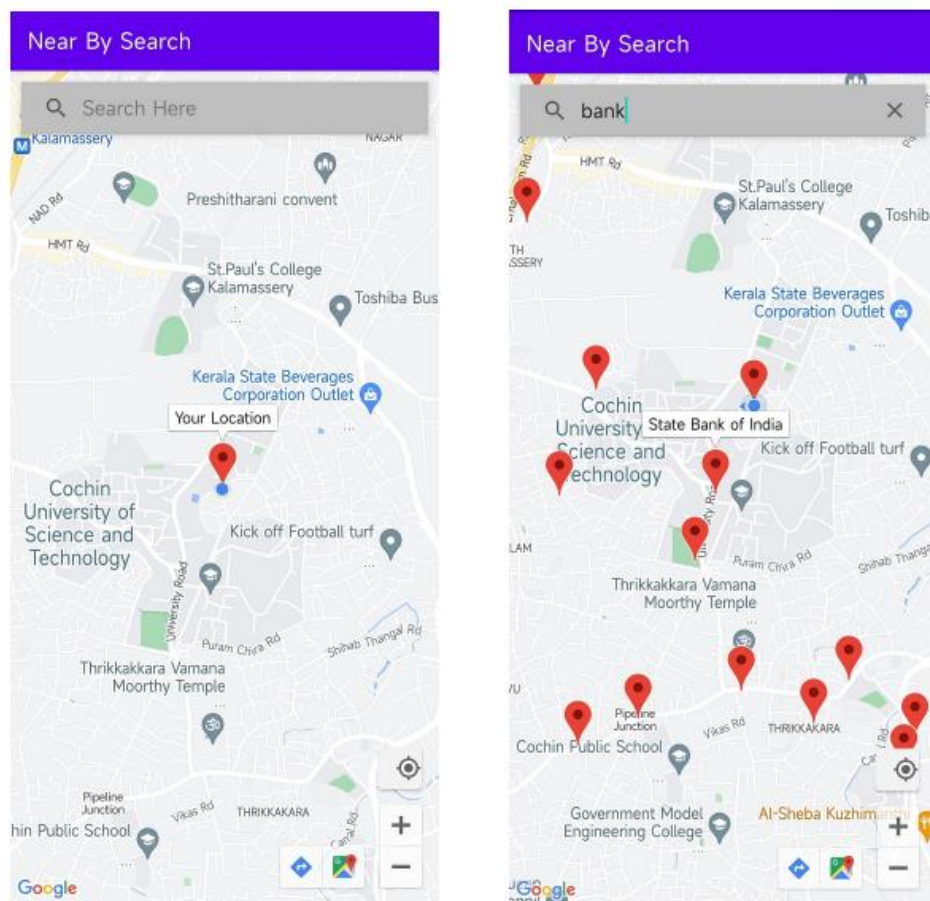
Android Virtual Device (AVD) manager enables us to launch virtual android devices/emulators in our PC and run the app in the emulator, and at the same time we can track and debug each app activity from the Logcat in our IDE.

# PROJECTS - NEARBYSEARCH APP

## Overview

NearBySearch is an android application where the user can search for his nearby locations based on his requirement. Whenever the user gives input of business type like a hotel, petrol pumps, hospitals, etc. using Place API and as a response we obtain the co-ordinates that are marked on the Google map.

## Screenshots:



# PROJECTS – GROCERY APP

## Overview

As we can't remember everything, users frequently forget to buy the things they want to buy. However, with the assistance of this app, you can make a list of the groceries you intend to buy so that you don't forget anything.

## Screenshots:

