# Android Mobile Application for Finding the Locations of Different Stores

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**Abstract-** *Android has now become the world's most used operating system on different types of devices especially mobile phones & tablets. The Google Play Store was developed by Google for the android users to make use of various applications which are developing at a breath taking speed. As of September 2016 it has been estimated that more than 2.4 million applications are available on the Google Play Store. This serves as a great opportunity for many entrepreneurs to proliferate their businesses and solve many day-to-day life problems on economical basis. This paper proposes the implementation of an Android Application that would be very useful for finding the locations of different types of stores in the vicinity of the user.*

*Keywords- Android Studio, Android Virtual Devices (AVDs), SDK, Smartphones, MainActivity.java, activity_main.xml*

## I. INTRODUCTION

With development in science and technology it has become possible to build a number of stores for every possible commodity available to mankind and make a plethora of stores. The most common commodities in use are grocery items, stationary items and medicines. With such a high number of stores available at different locations it is not possible for a human being to keep track of all the stores. Hence, there is a need for a system that would come in handy in order to keep track of all the stores available around an individual. The best choice of having such a system is developing it on a smartphone.

Smartphones have now become an integral part of every individual living on this planet. Smartphones have advanced in such a way that in near future they would have the capabilities and features to replace an entire computer system. Due to so many features being provided by a smartphone it is viable to create a system application on a smartphone that would solve our problem. Along with developing the application it must be made that the application is user friendly meaning individual of any group and any education level can make use of the application in a very easy manner.

This paper includes the following sections:
- Introduction
- Android
- Algorithm for the application
- Implementation
- Conclusions & Future Scope
- References

## II. ANDROID

Android is a Linux-based, open source mobile operating system developed by Open Handset Alliance led by Google to develop apps for Android devices. To start developing android applications we need to make use of a set of tools that are included in the Android SDK. After downloading Android Studio we can utilize different tools required for the android application development available in Android Studio.

The basic steps for developing applications includes four development steps as follows:

**1. Setup:** During this phase we install and set up our development environment required for development of application. We also create Android Virtual Devices (AVDs) and also can connect hardware devices, on which we can install and test our applications.

**2. Development:** During this phase we set up and develop our Android project, where we write the source code for our application.

**3. Debugging and Testing:** During this phase we build our project into a .apk package file that can be installed and tested on the emulator that we created or on a physical mobile device.

**4. Publishing:** During this phase we need to configure and build the application so that it can be released and distributed among users.

## III. ALGORITHM FOR THE APPLICATION

**STEP 1-** Launch the application.

**STEP 2-** Select the type of store from Healthcare, Grocery, Stationery, Babies Care, Pets Care and Others.

**STEP 3-** If store type is "Healthcare" select from the sub category viz. Medical Store, Appliances Store & Emergency else go to STEP 5.

**STEP 4-** If the sub category is "Emergency" select from sub category viz. Medicines or Injections and go to STEP 5. Else go to STEP 5 without entering STEP 4.

**STEP 5-** Select location.
If the store type is "Healthcare" go to STEP 6 else go to STEP 7.

**STEP 6-** Select the working hours of the store viz. 12 hours or 24 hours.

**STEP 7-** Find the address of the choices made.

## IV. IMPLEMENTATION

The following outputs were obtained after writing the code on Android Studio for the various elements for the application like the Icons for making various selections, enabling the application to switch to the next desired window of selections and finally for the "Share" button that enables the user to share the address of the stores via Whatsapp, Text Message etc.



Fig (a) Select Store Type
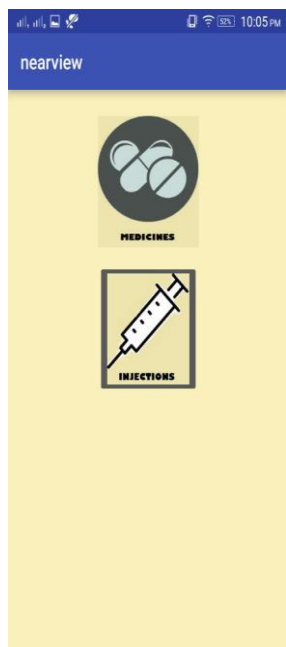


Fig (b) Select from sub category of Heath care
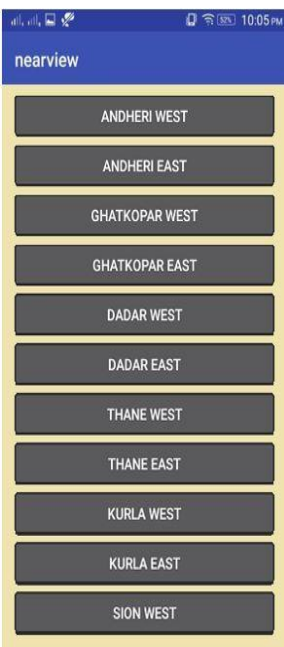


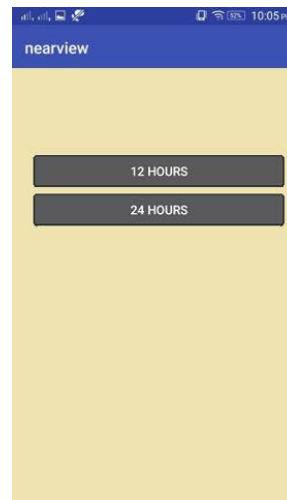Fig (c) Select from sub category of Emergency



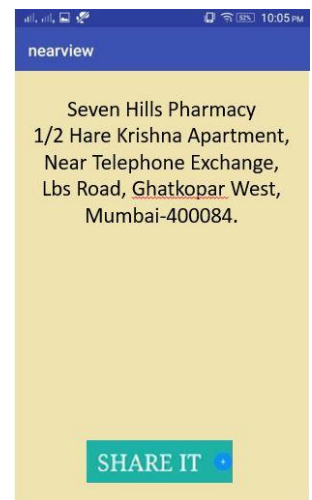Fig (d) Select Location



Fig (e) Select Store Working Hours



Fig (f) Obtain final address and feature to share it

## V. CONCLUSIONS & FUTURE SCOPE

The objective of developing an Android Application that would help for finding the locations of the different types of stores was achieved. It can be concluded that Smart Phones have changed the lives of everyone. Along with other features, an App in Smart Phones allows to do almost everything, from playing games to do business. The development of app described in this paper has given a strong understanding of various challenges associated with design and development of apps. The achieved application works efficiently on different android devices, with different version of Android OS, which were used for testing.

More information about the different stores can be added from time to time and thereby increasing the database. Also the feature of live inventory can be added especially for Medical Stores by creating a server that would interact with the database of the application and update the database from time to time.

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