

Development of Mobile Application for Laundry Services Using Android Studio

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Abstract

This paper describes Laundry Application. Laundry Application is an Android Application which is build in Android Studio 8.0.1. Android Studio is a framework in which we developed Application only for Android devices. Designed Application work with latest Android version Nougat 7.0 or Android Oreo 8.0. It provides better support structure for suitable work. The main motive of building Laundry Application is to provide employment. Those washer-men who are unemployed or which have less work. This Application is also helpful for working people, student or those people who are staying outside their houses and they have no time to wash their clothes. So basically we are trying to connect peoples (customers and Dhobis) can be mutually benefited. In this Application number of services available, so the customer can easily select the services, date of service, time of service etc.

Keywords: Android Studio, Laundry application.

INTRODUCTION

According to today's rapid demand, we are all surrounded by numerous on-demand Applications the Laundry Application is one of them. This Application is leading the way forward. This Application is necessary part of the busy schedule of life. There are many Laundry Applications available in the market like Yellowish-premium Laundry/dry clean Services, Wash-A-Ton Laundry Pune, Dr.Clean Laundry, DhobiLite Laundry & Dry Clean but these Applications provides the Laundry services only for limited places. MY DOOR Application will not only work on any specific place it will work for all the places. In the old days when the washer-men visited home every day or week to collect the dirty clothes. When cleaning is finished, then clothe was sending to its right full owner. This practice faded out and replaced by the washing machines. People don't want to invest their valuable time in day-to-day household chores such as washing the clothes because they have other important business to attend to moreover, so the on-demand laundry app has been introduced for saving time.

METHOD OR METHODOLOGY

For implementation of the MY DOOR Application, the Platform used is 8.0 and language used is java and XML. SQLite is used at the backend.

First, you download Android Studio and installed that with Android SDK AND ANDROID VIRTUAL DEVICE. After installation you must set the API level. After that, open Android studio and select "Start a new Android Studio project" under "Quick Start" menu and name that application which you want and also company domain. Together, these elements will be used to create your package name for e.g. com.companyname.appname. This is the ANDROID package file which you will be upload to the Google Play Store. In the last field you will enter the path where you want to save.

If you want to create your application according to you, so you need to select the blank activity from the activity module. Like this Activity you will add more things to your application which you want to show. When you open your application in Android Studio you have to See two file, first one is 'activity_main.xml' and the other one is 'content_main.xml'. Basically both do the same Thing, but the activity_main.xml contains the basic layout when you selected Basic Activity. In content_main.xml you can edit the content. In Android there is a bunch of option called 'Widgets' in which you can drag and drop things. In Android Studio, it is not showing XML code, but rather a rendering how the layout will appear on the screen. If you want to define the behavior of your application then you need to open MainActivity.java. You have found those tabs under Application>Java. After setting your code or layout design you need to run your application. First, you test your application you can run on Android Virtual Device called Emulator. After successful testing you need to test your application on a real device.

So first you connect your device to your development machine with USB cable. Open Developer option and then enable USB debugging option on your device. After that, In Android Studio, you can click the application module in the project window and then click on Run in the toolbar. In the Select Deployment Target window, you will select your device and then click OK button. Android Studio installs the application on your connected device and starts it. Now you will see the application running which you have created on your device [1].

When you enter any kind of data on the front end of the application which is designed through XML file. Those data will be saved in the database. And that data are stored in the database with the help of web services, SQLite, Firebase etc [2].

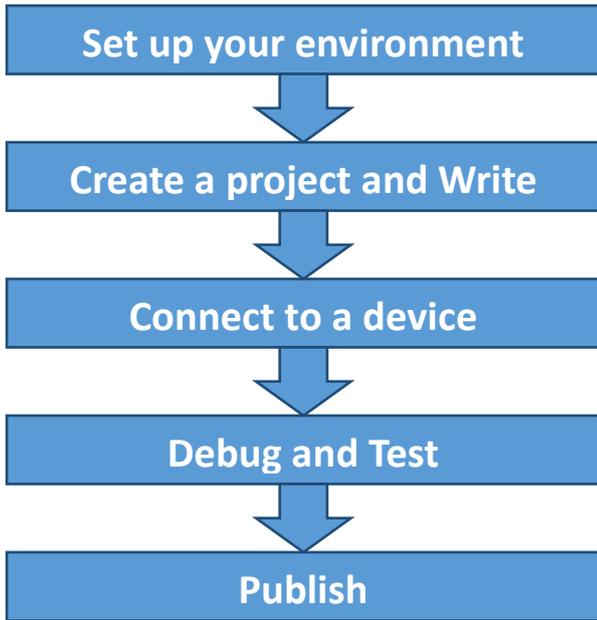


Figure 1. Process to build an Android app

Intent can be used to launch an activity with start activity.

It provides facilities for performing late run time binding between applications and the code. It mainly used to launching of activities, where it can be thought as the connector between activates. An abstract description of an operation to be performed. It is also used for the broadcast intent to send it any interested components of broadcast receiver. As you can see below figure intent is working like a connector between the main activity to another activity or we can say that it can navigate the main activity to another activity, the background process which is used for this is intent. For e.g., message, web page etc [3].

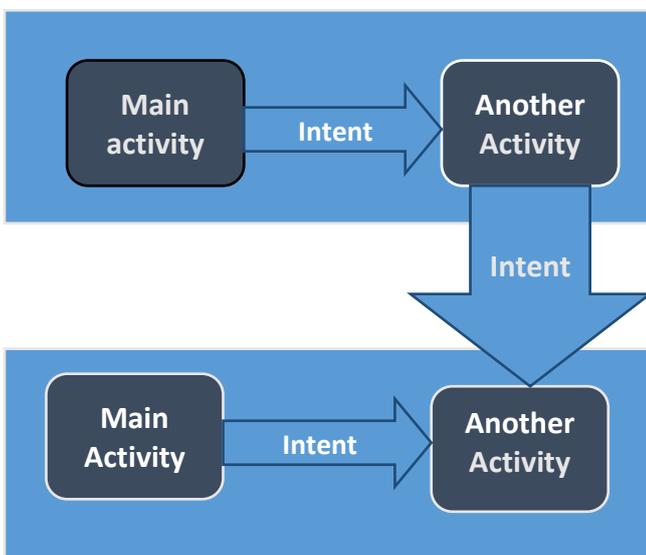


Figure 2. Android Intent to navigate from one activity to another

DESIGN MODULES

Application divided into two phases one is USER SIDE and another is ADMIN SIDE.

A. User Side:

- Initially, the user will land on the landing screen with a loader.
- After it, we will take the user automatically to 2-3 intro screens where we will define the usability and features of the app. These screens will show only once.
- Next will be a login screen. Also, login with facebook option will be there for direct login.
- From the same page, user can navigate to registration page, and can register himself using his email ID. The mandatory fields will be phone number and email. As we need it for contacting the customer.
- When user Login for the first time, there will be a onetime once the registration is done, ADMIN will see this user in the list as pending. ADMIN can allot them to a user code, and then only the user can login and makes orders.
- Once the customer is logged in, he can view the category of services like Laundry/Dry Cleaning, Clothe Alteration and shoes cleaning/repair
- Screen to add the address, and can locate the same on MAP, and can save it.
- Later he can change the address if he wants from the edit profile page.
- He can also click on "the Add basket", and he will proceed to the order placement page directly.
- Here, either driver or ADMIN can add the quantity later on.
- Clicking on any category will take him to the next page, where he can select the products like Shirt, T-shirt, Coat etc, and can define the quantity.
- Once done, he can go the order finalization page, where he will see all the summary of the order placed and then can proceed to place the order.
- Once the order is placed, and confirmed by ADMIN, then he will get a notification to make payment from within the app or website.
- On placing order he will need to select the payment type i.e. online payment through payment gateway or cash on delivery.
- Once done, he will receive an SMS Notification + an email notification that order is placed.

B. Admin Side:

- Once a user is registered, ADMIN can view them in a table view.
- From there he can assign them the USER CODES, and based on it the scheduling of pickup and delivery will follow.
- An option to create user codes. Assign Days of Pickup delivery.
- Create Category of Services like Laundry Dry cleaning, etc.
- Create products under the services.
- View all orders. Categorized as Pending, completed, in process.
- Set Schedule for urgent pickup.

C. Driver side:

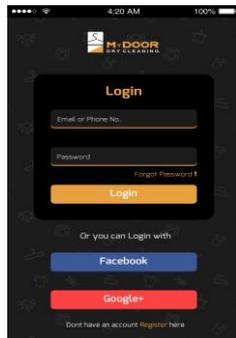
- On confirmation and scheduling of order from ADMIN or automated process, he will receive the details of order.
- Details will include the Address with MAP location, phone number and details of what things he needs to pick up [4].

You can use “MY DOOR Laundry Application” by the following screens of Application which are given below:

Splash Screen



Login Screen



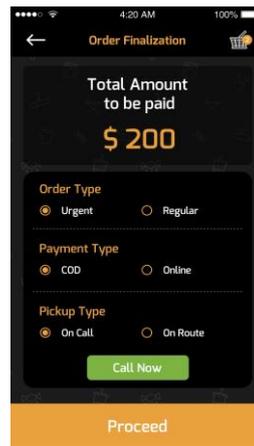
Registration



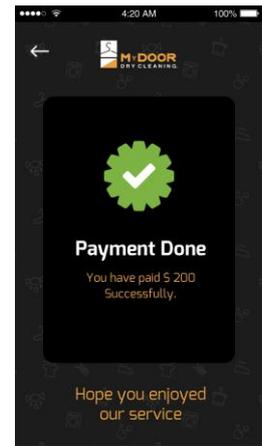
Select Category



Finalize order



Payment Done



CONCLUSION

Application mainly designs for laundry purpose. This application work on the Android version of 8.0 Oreo. This application will not only work on any specific place it will work in all places. The main aim of this Application is to provide help for those people who are living outside of their houses and also for those unemployed washer-man who have less work.

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