Chapter 1. DESCRIPTION OF THE COMPANY

1.1 ABOUT Akash Technolabs:

- We have rich experience of 7+ years in offering Website Design, Web Development, CMS, Ecommerce Solutions, Mobile Apps and Digital Marketing Services to business of all statures whether you are a small business or a corporate company.
- Our team of young and skilled developers have expertise to deliver the perfect web and mobile apps solutions…
- Akash Technolabs offers experienced and comprehensive help for a wide range of business needs and can help you to work smarter and reach your goals. Have a look at the professional services Akash Technolabs offers, and let's talk.
- The location of the company is as under:
  K/6,Shree Krishna Center Above
  Crossword Mithakhali Six Road,
  Navrangpura Ahmedabad,Gujarat-380009
- I was working under Mr. Ronald Macwan during the days of my internship where I got to learn about Android and he guided me throughout the completion of my internship period.
- The services offered by Akash Technolabs are Android and iOS App development , E-commerce development, WordPress development, CMS development , Domain & Hosting , SEO & Digital Marketing.

1.2 COMPANY PROFILE:

Company name:	Akash Tecchnolabs
Company website:	https://akashtechnolabs.com/
Company email id:	info@akashtechnolabs.com
Company address:	K/6,Shree Krishna Center Above Crossword Mithakhali Six Road, Navrangpura Ahmedabad,Gujarat-380009
Number of employees:	15
Head office address:	Ahmedabad
Contact person name:	Akash Padhiyar
Contact person phone number:	+91 99786 21654
Contact person email id:	info@akashtechnolabs.com
HR name:	Akash Padhiyar
HR phone number:	+91 99786 21654
HR email id:	info@akashtechnolabs.com
Technology:	Android, iOS, PHP, E-commerce Development, Wordpress , CMS, SEO & Digital Marketing

Chapter 2. INTRODUCTION

2.1 PURPOSE OF SUMMER INTERNSHIP:

- The purposes of summer internship for us include the following:

1. Learn more about our field or industry:

   Along with job shadows and informational interviews, internships are one of the best ways to truly learn about our field from a real-world perspective. While the classroom certainly teaches us important information, there's something different about implementing those teachings with a real client or customer.

2. Apply knowledge learned in the classroom:

   Again, there's a big difference between learning about strategies and tactics and applying them. Interning helped us learn how our classroom knowledge applies to real situations and reinforces concepts taught in classes.

3. Gain valuable work experience:

   Internship helped us get this real-world experience while still in college. Internship programs are a great way to generate more work samples for our professional portfolio and gave us real accomplishment stories for our resume and online profiles.

4. Decide if this is the right path for us:

   Working for a company in our industry can give us valuable insight into whether the industry is the right choice for us. It's best to know as early as possible, and an internship can help us do that.

5. Develop and build upon skills:

   Learning new skills in an internship can help us in future employment opportunities and might give us a leg up on our competition in future application processes.

6. Gain valuable networking contacts:

   Another benefit to completing an internship is the contacts that we made. Networking is often one of the best ways to land a new job and a primary way to learn about unadvertised job opportunities.

7. Learn about the world of work:

   When we choose to intern at a company, we'd experience first-hand what it's like to work in an office, interact with supervisors and co-workers, and handle customers or clients.

2.2 Android Introduction:

Android is a software package and Linux based operating system for mobile devices such as tablet computers and smartphones.

It is developed by Google and later the OHA (Open Handset Alliance). Java language is mainly used to write the android code even though other languages can be used.

The goal of android project is to create a successful real-world product that improves the mobile experience for end users.

There are many code names of android such as Lollipop, Kitkat, Jelly Bean, Ice cream Sandwich, Froyo, Ecliar, Donut etc.

Features of Android

The important features of android are given below:

1) It is open-source.

2) Anyone can customize the Android Platform.

3) There are a lot of mobile applications that can be chosen by the consumer.

4) It provides many interesting features like weather details, opening screen, live RSS (Really Simple Syndication) feeds etc.

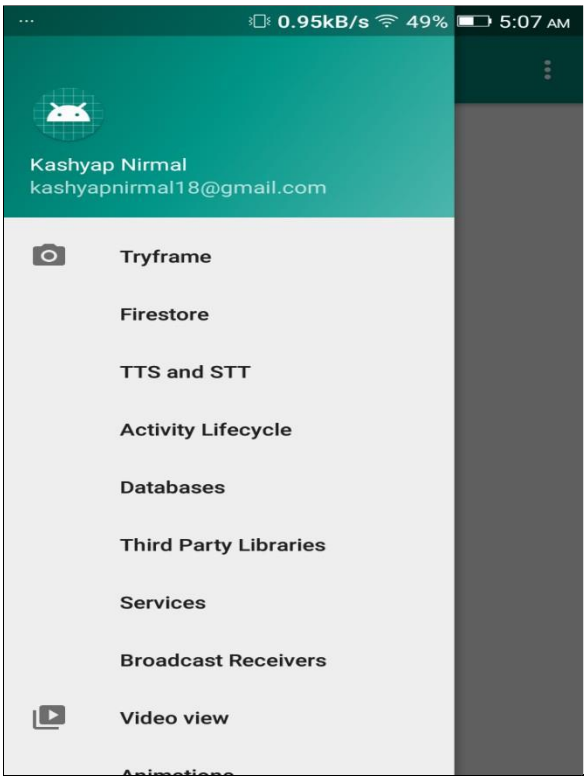
It provides support for messaging services(SMS and MMS), web browser, storage (SQLite), connectivity (GSM, CDMA, Blue Tooth, Wi-Fi etc.), media, handset layout etc.

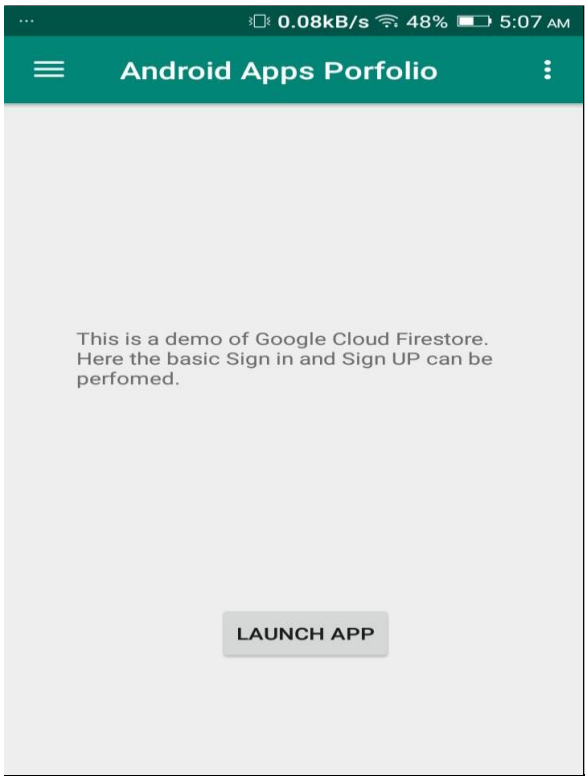
There are many android applications in the market. The top categories are:

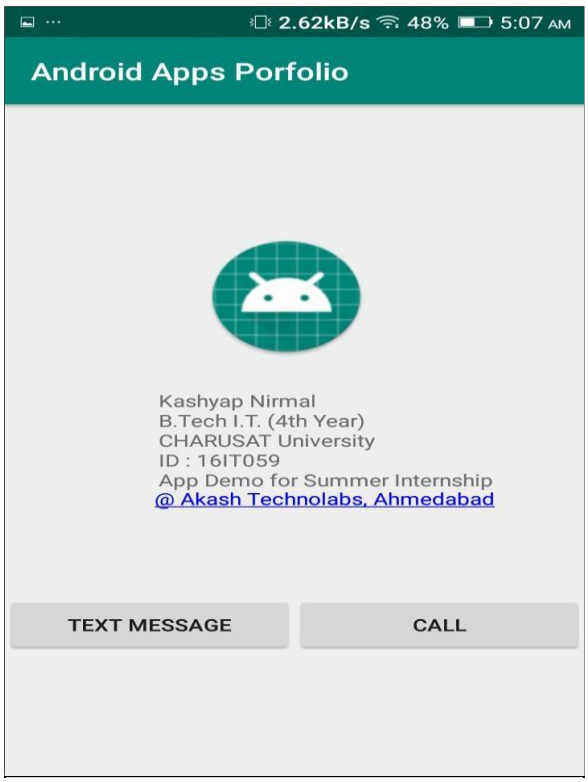
- Entertainment
- Tools
- Communication
- Productivity
- Personalization
- Music and Audio
- Social
- Media and Video
- Travel and Local etc.

2.3 GENERAL INFORMATION ABOUT THE WORK CARRIED OUT:

- During the first few days, I was assigned the task to brush up my skills on Android using Android Studio using Java as the back end programming language and create small demo apps for the basics.
- Here I have learned many things but have implemented them as independent modules. The things were like Activity Life Cycle, Fragments, Intents, UI widgets, Styles and Themes, Drawables, Speech to Text and Text to Speech, Services, , Broadcast Receiver, Tryframe, Google Firestore , etc.







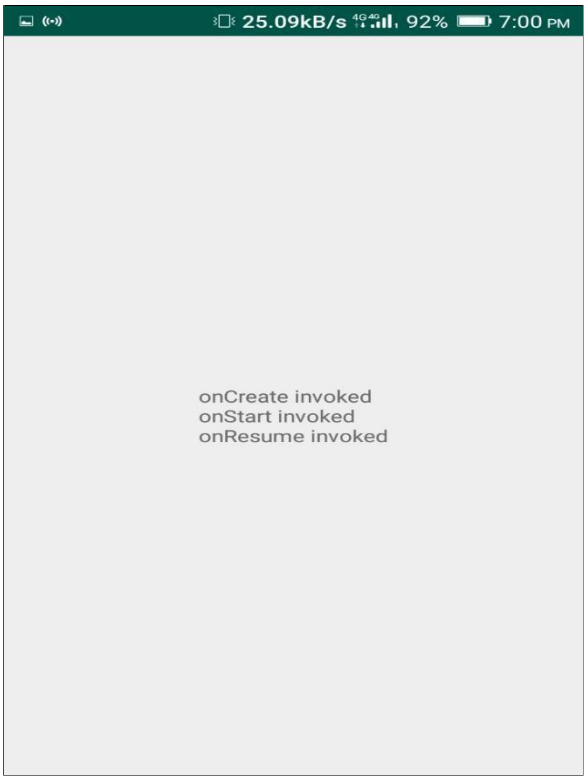
- Activity Life cycle methods:

The android Activity is the subclass of ContextThemeWrapper class. The 7 lifecycle method of Activity describes how activity will behave at different states.

I. onCreate()
II. **onStart()**
III. **onResume()**
IV. **onPause()**
V. **onStop()**
VI. **onRestart()**
VII. **onDestroy()**

Here the **onCreate** is invoked only once when an app is launched for the 1st time. After that **onStart** and **onResume** are invoked always. **onPause** and **onStop** are called when the app may be interrupted. And once when the app is uninterrupted again **onRestart** and **onStart** are invoked. **onDestroy** is invoked when the app is sent back as background app.

- Below are the few snapshots of it:


25.09kB/s
92%
7:00 PM
onCreate invoked
onStart invoked
onResume invoked


1.24kB/s
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onCreate invoked
onStart invoked
onResume invoked
onPause invoked
onStop invoked
onRestart invoked
onStart invoked
onResume invoked


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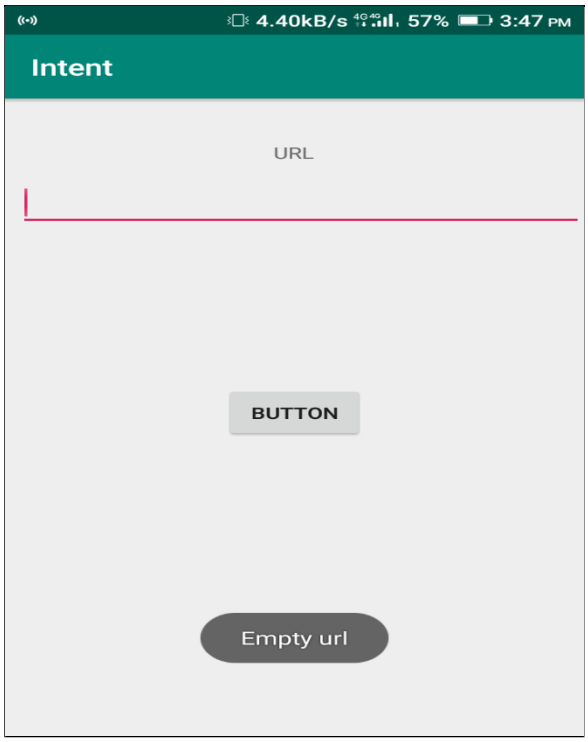
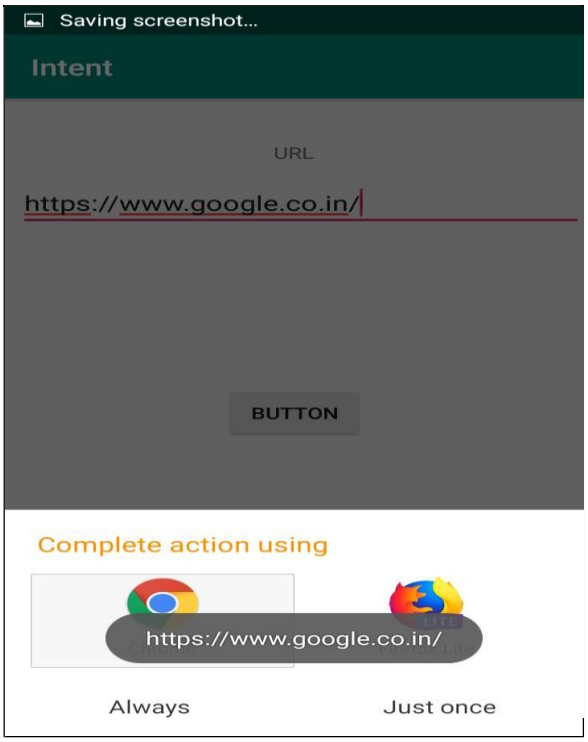
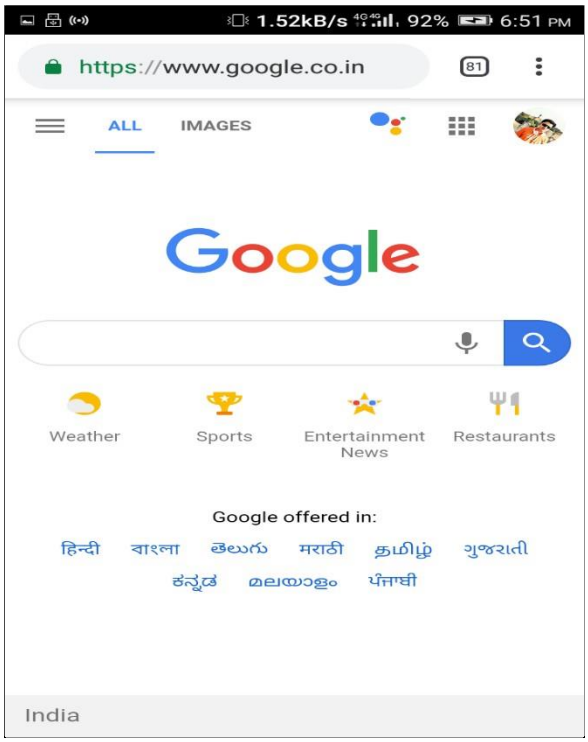
onDestroy invoked

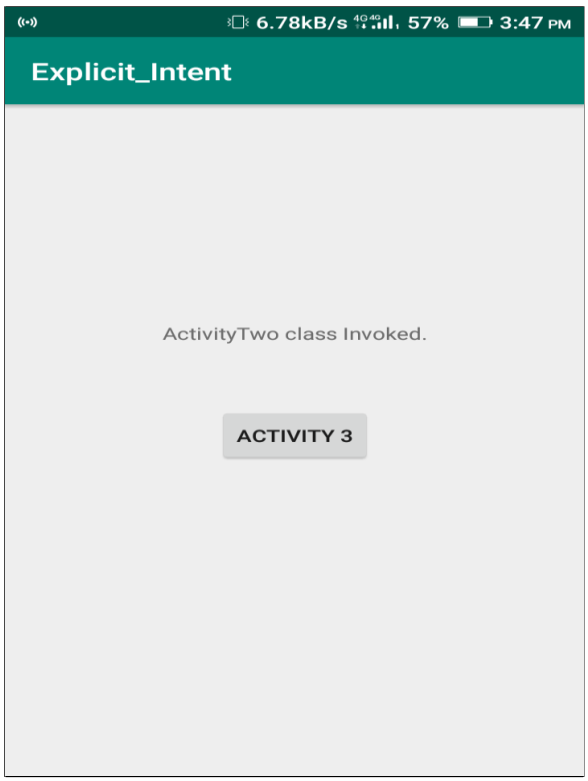
Intents:

Intents can be implicit and explicit. Intents can be used for data passing among activities, launching any activity, launching web page from URL, performing many various activities maybe like Calling, Sms etc.





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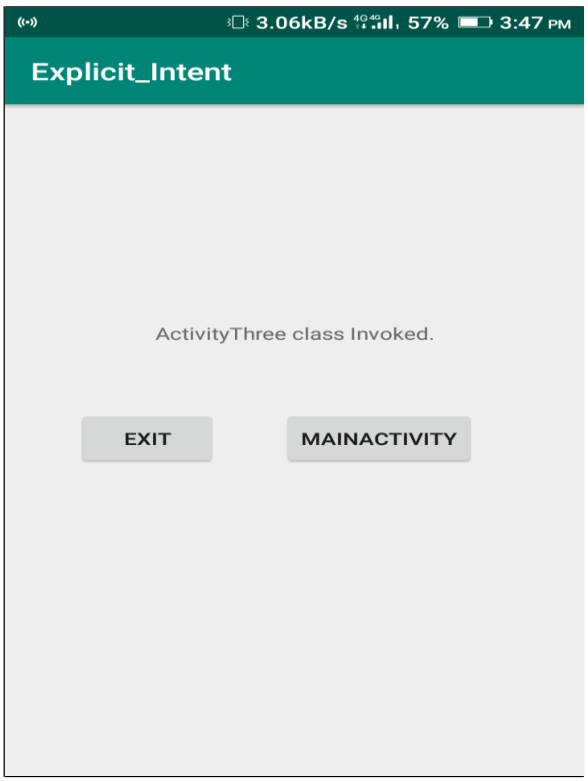
Explicit_Intent
ActivityTwo class Invoked.
ACTIVITY 3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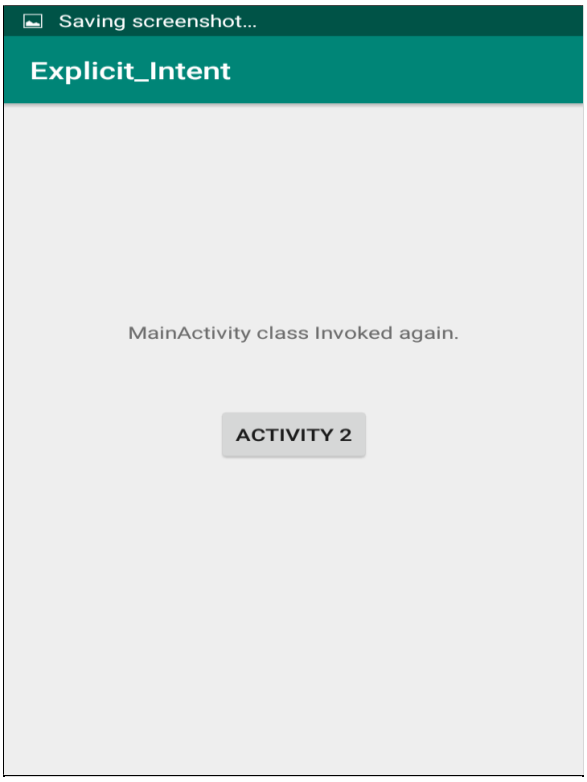
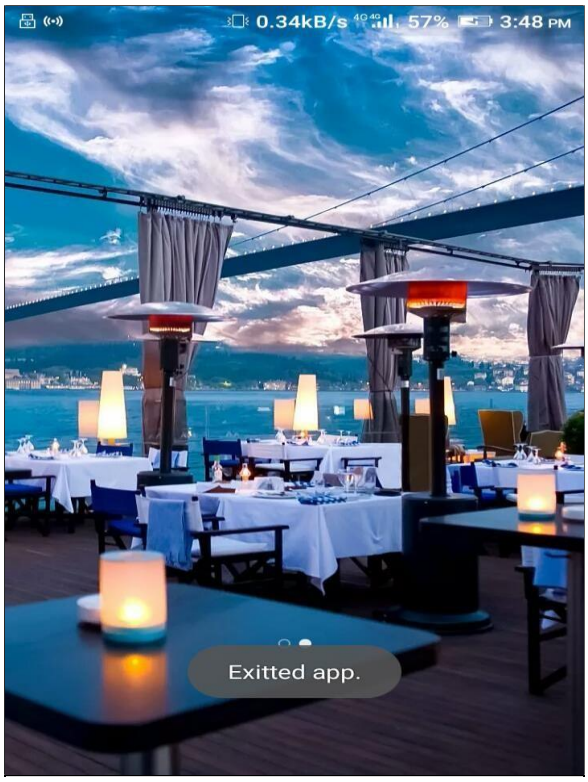
Explicit_Intent
ActivityThree class Invoked.
EXIT
MAINACTIVITY


Saving screenshot...
Explicit_Intent
MainActivity class Invoked again.
ACTIVITY 2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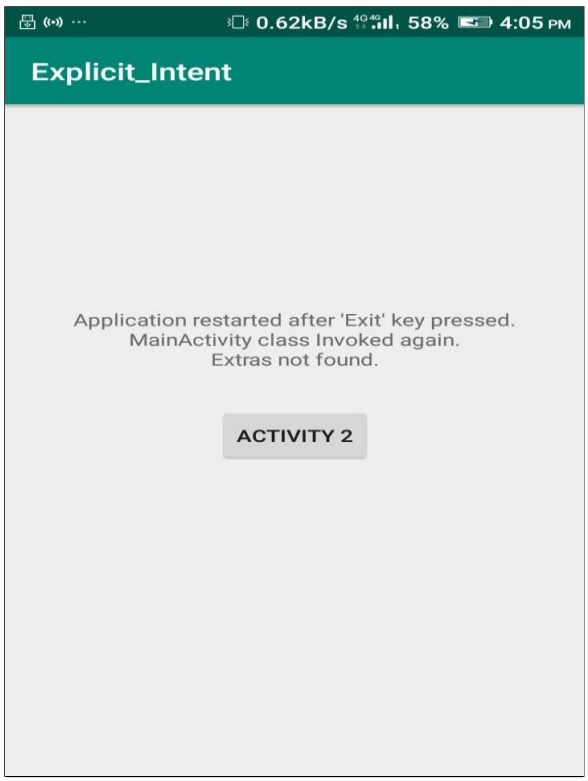
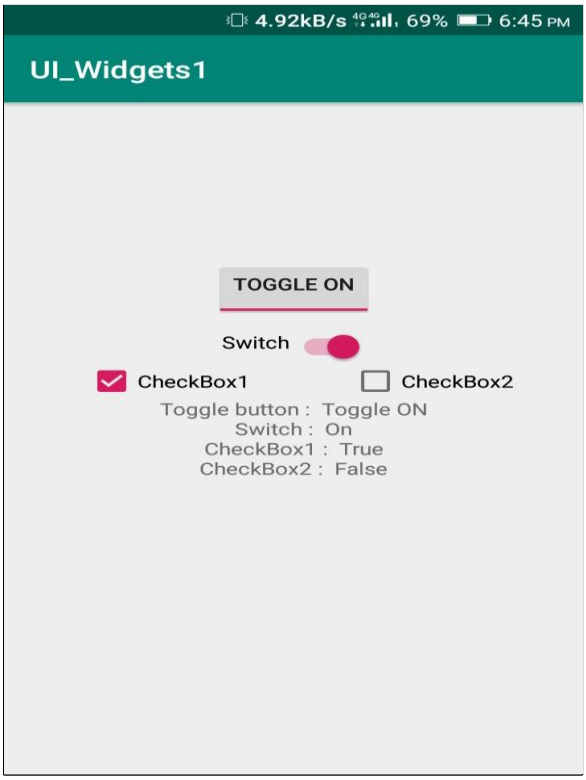
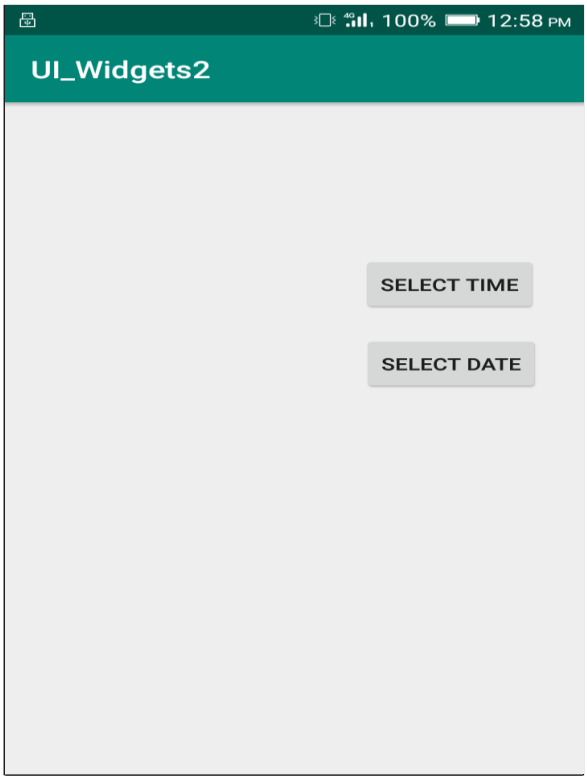
Exitted app.

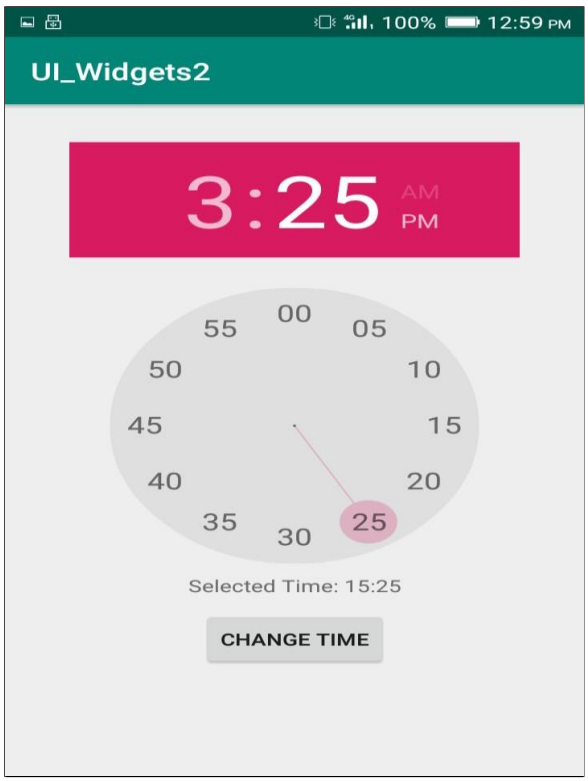


UI Widgets:

All the UI widgets have their independent usage and importance.






100% 12:59 PM
UI_Widgets2
3:25
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Selected Time: 15:25
CHANGE TIME


100% 12:59 PM
UI_Widgets2
Sunday
JUN
30
2019
June 2019
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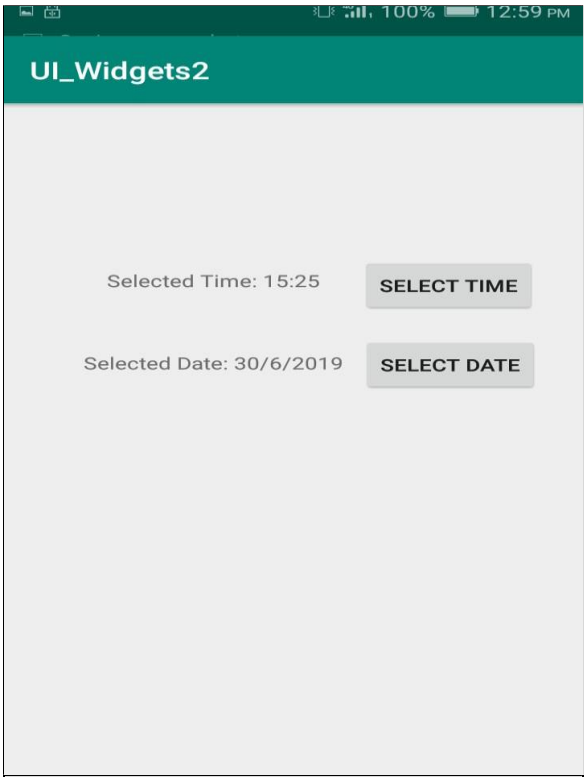
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30
Selected Date: 30/6/2019
CHANGE DATE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SELECT TIME
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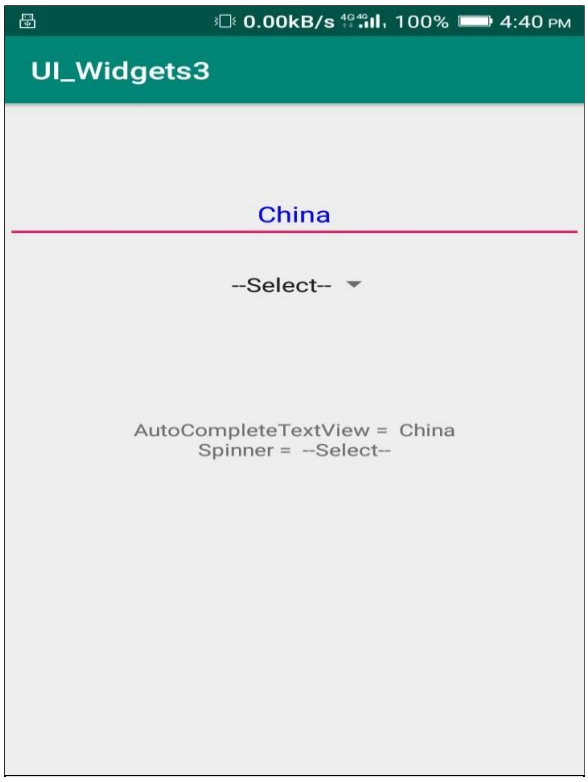
SELECT DATE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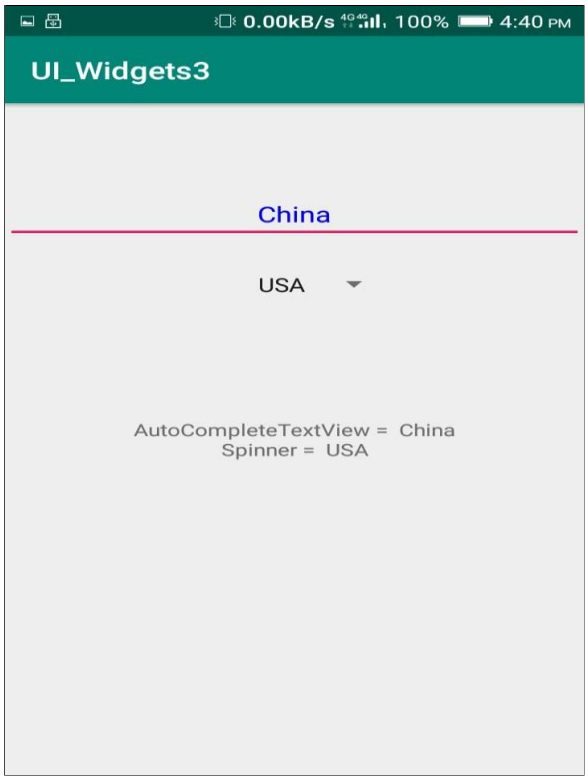
UI_Widgets3
China
--Select--
AutoCompleteTextView = China
Spinner = --Select--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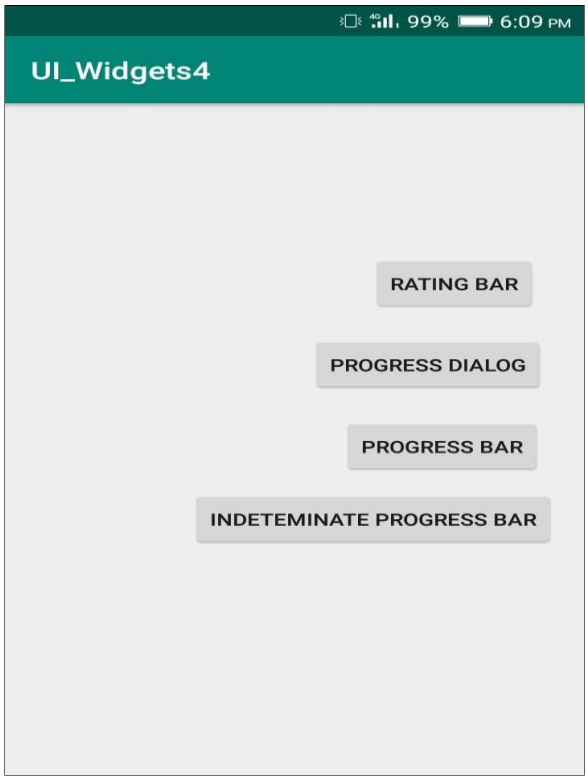
UI_Widgets3
China
USA
AutoCompleteTextView = China
Spinner = USA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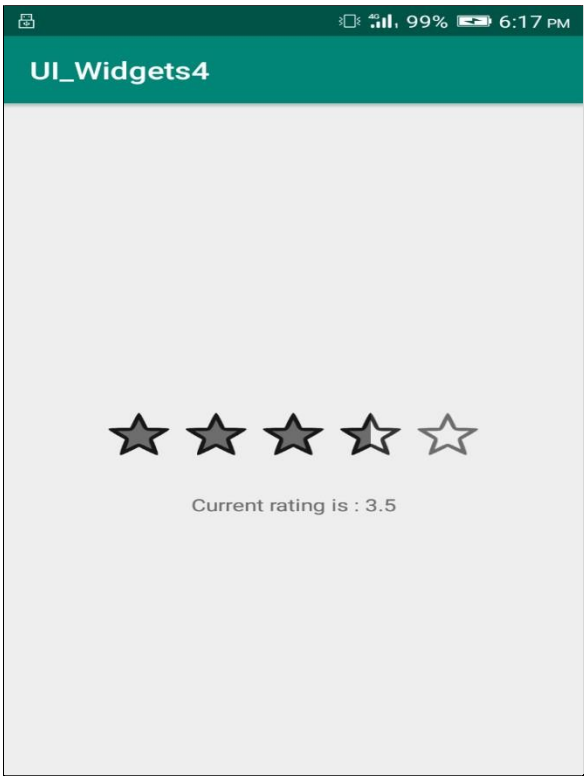
UI_Widgets4
RATING BAR
PROGRESS DIALOG
PROGRESS BAR
INDETEMINATE PROGRESS BAR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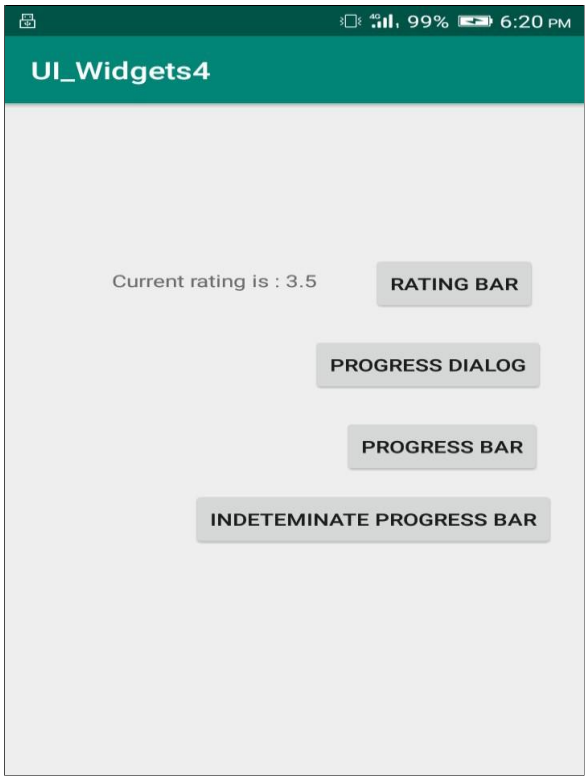
UI_Widgets4
Current rating is : 3.5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UI_Widgets4
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RATING BAR
PROGRESS DIALOG
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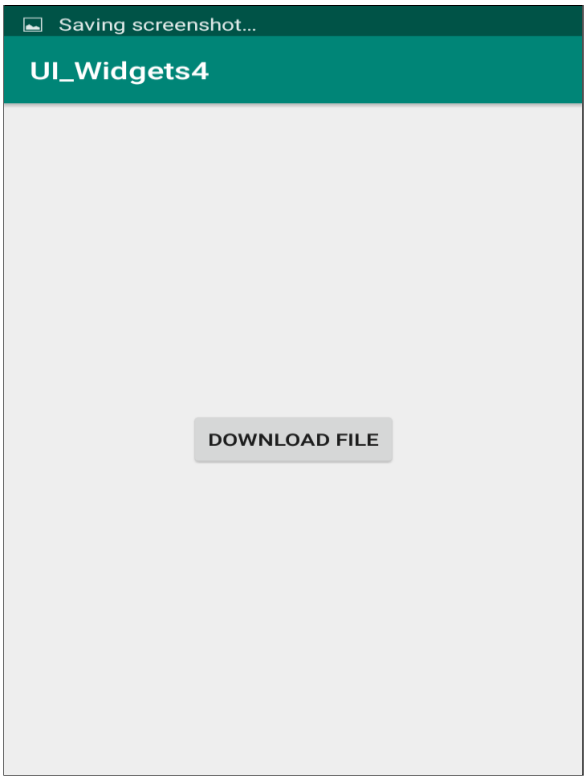
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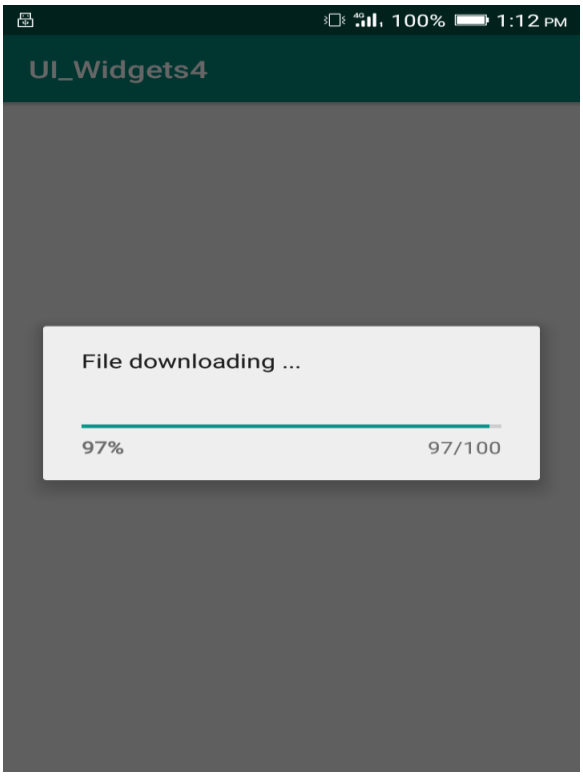
UI_Widgets4
DOWNLOAD FILE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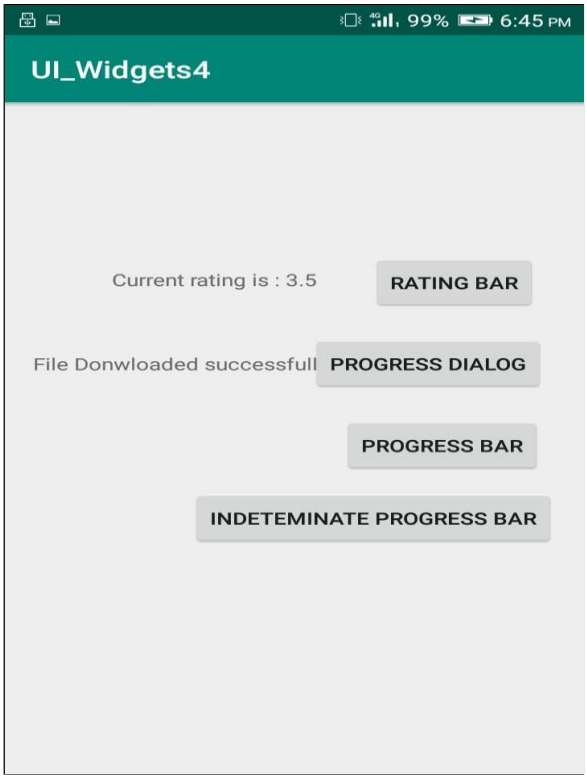
97/100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UI_Widgets4
Current rating is : 3.5
RATING BAR
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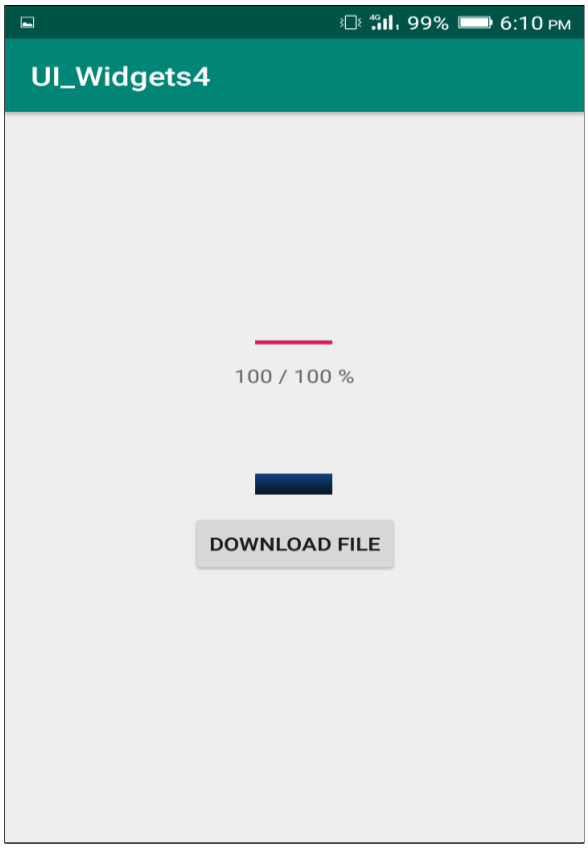
PROGRESS DIALOG
PROGRESS BAR
INDETEMINATE PROGRESS BAR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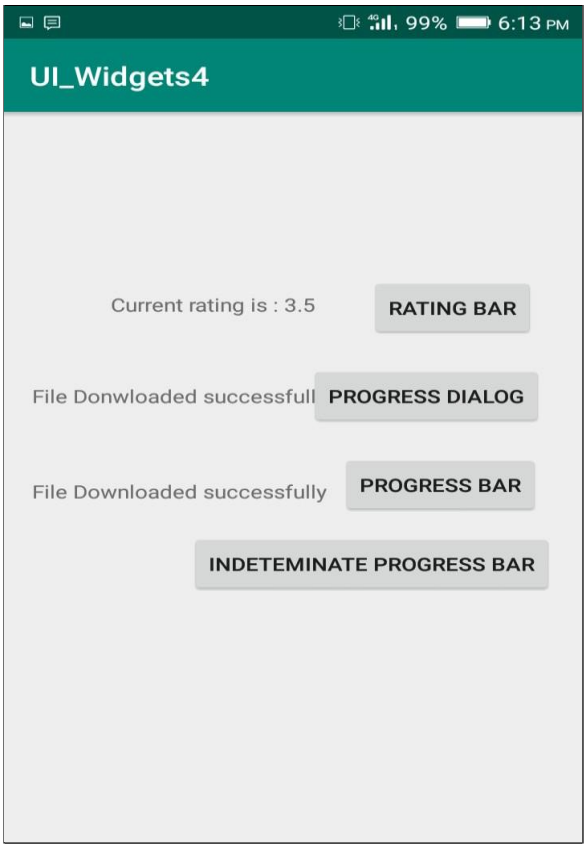
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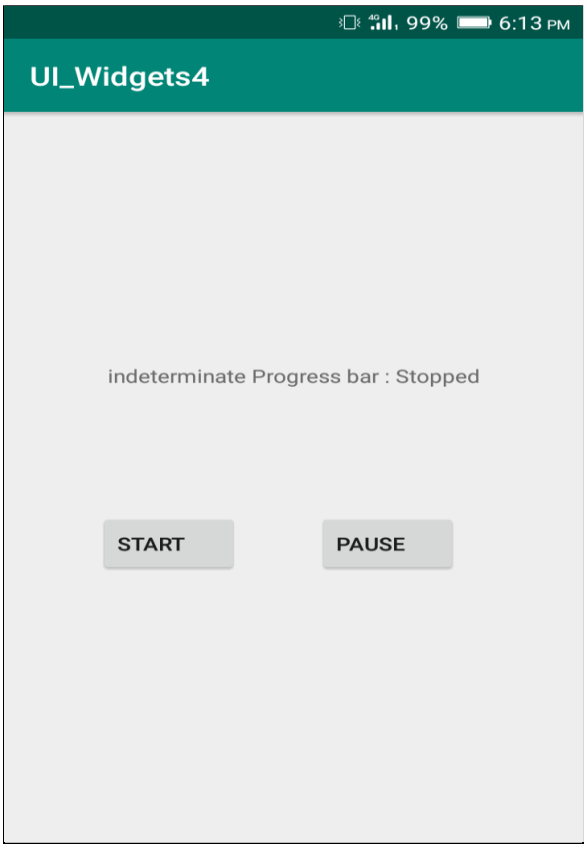
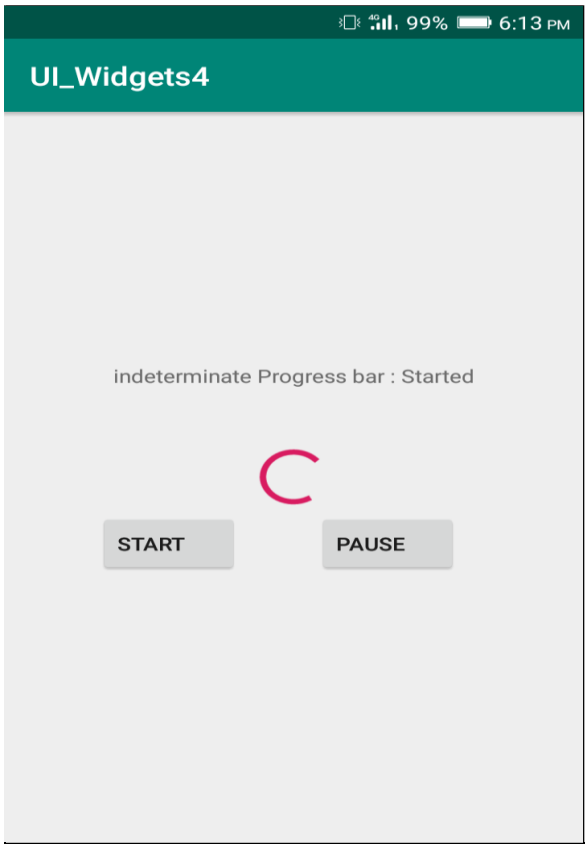
UI_Widgets4
Current rating is : 3.5
RATING BAR
File Donwloaded successfull
PROGRESS DIALOG
File Downloaded successfully
PROGRESS BAR
INDETEMINATE PROGRESS BAR


99% 6:13 PM
UI_Widgets4
indeterminate Progress bar : Stopped
START
PAUSE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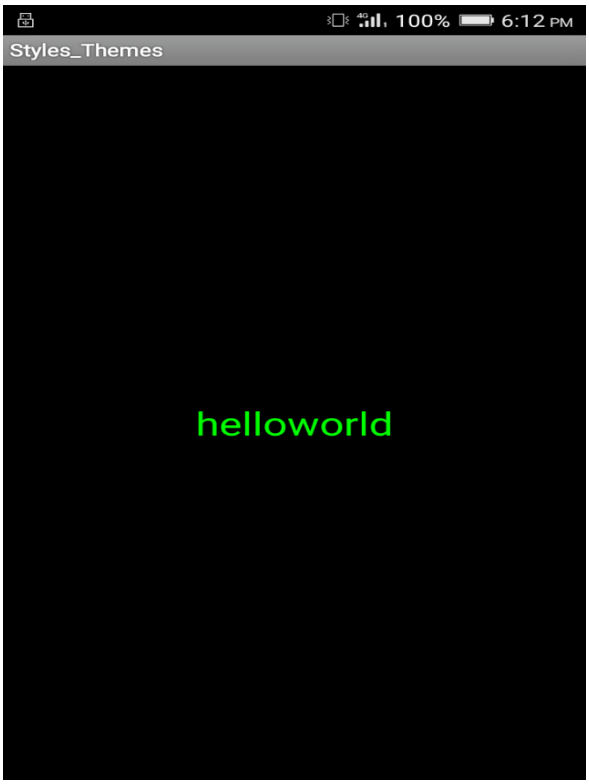
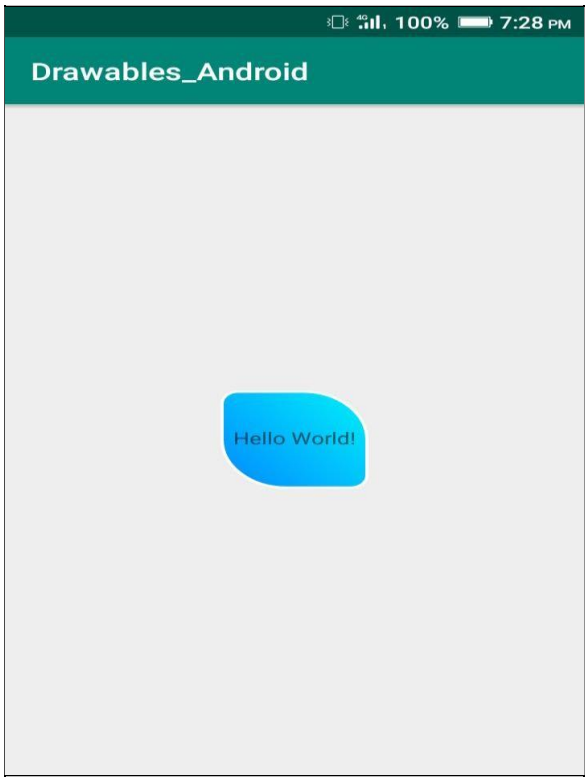
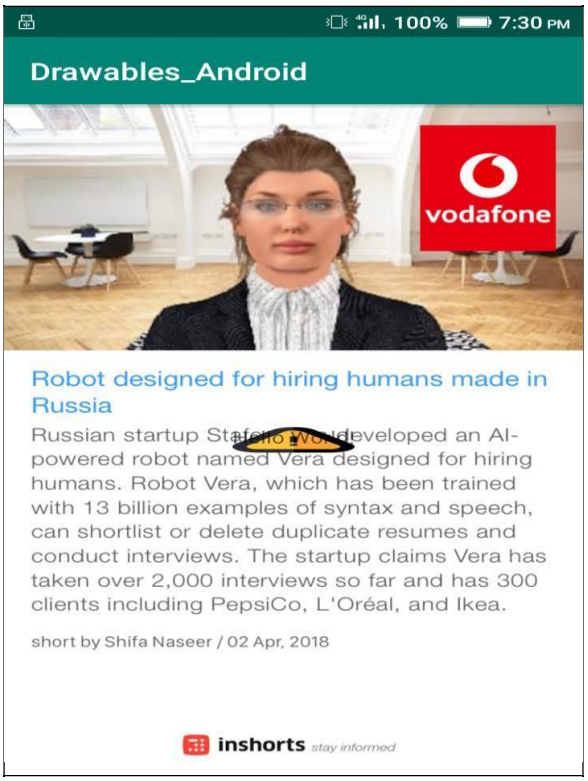
indeterminate Progress bar : Started
START
PAUSE

- **Styles and Themes**



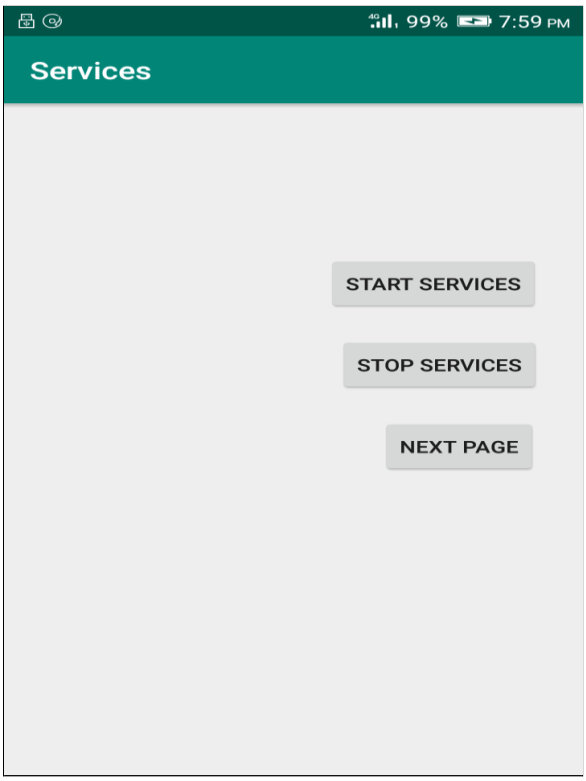
- Drawables:

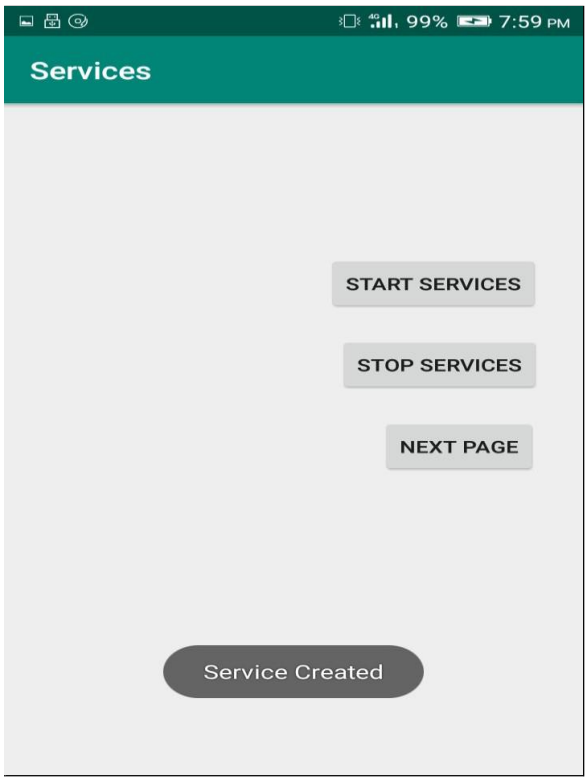


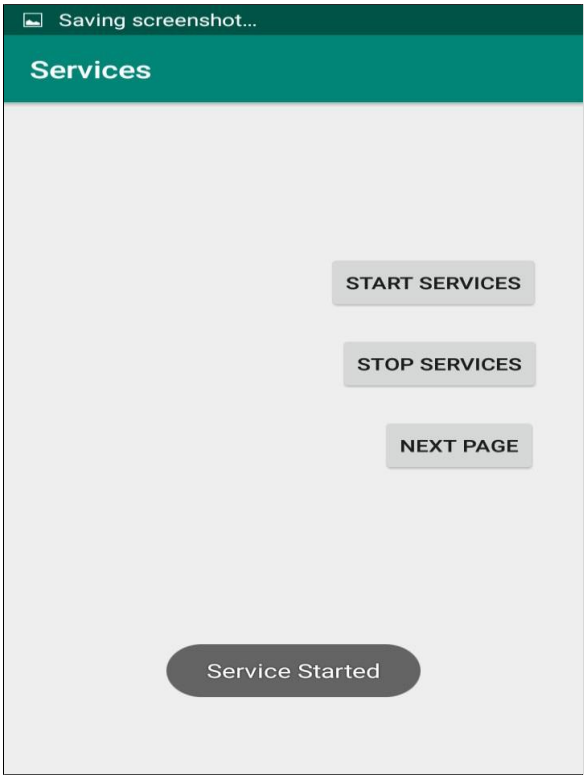


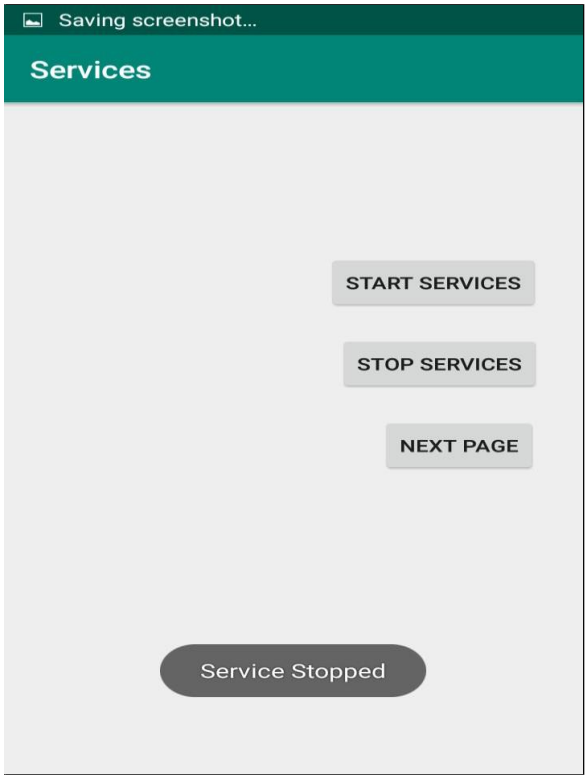
- Services :

Running any activity in background can be done using Services. Here music has been played in background.



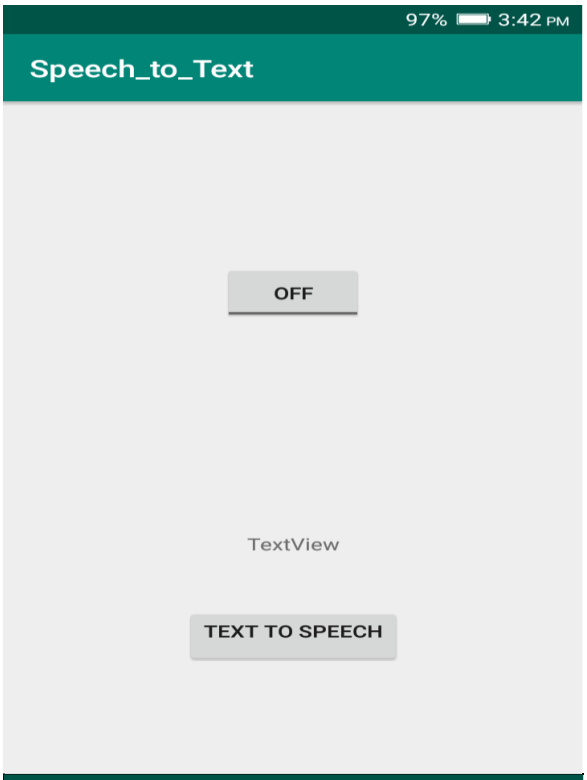


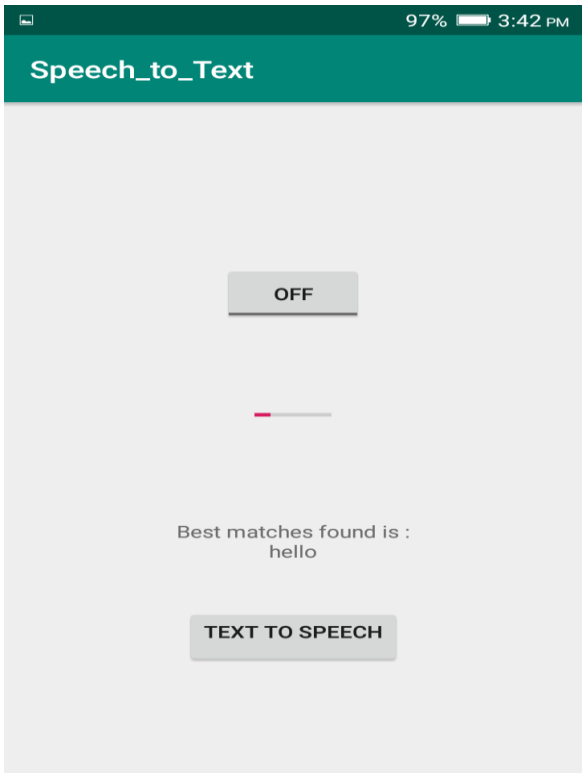


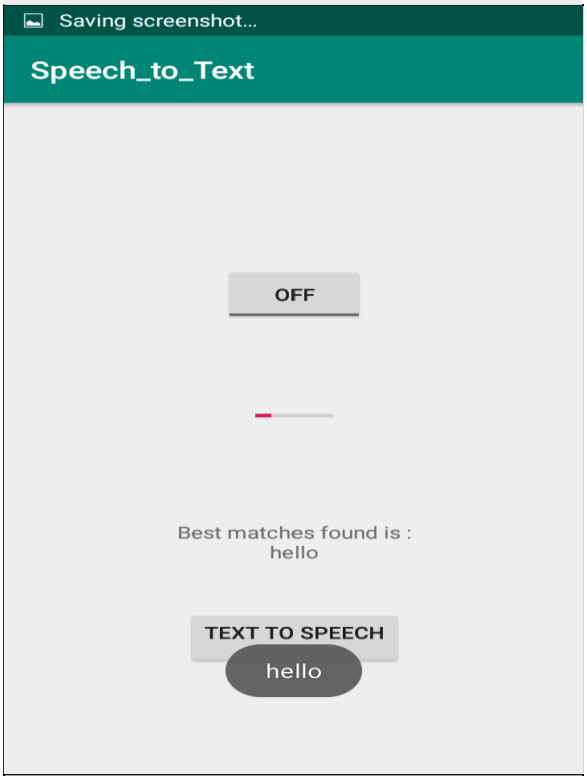


- Speech to Text and Text to Speech:

These above features are very common these days. We can all see them in use around us in our day to day life. For eg. Google Voice Assistant, Siri, Alexa etc.

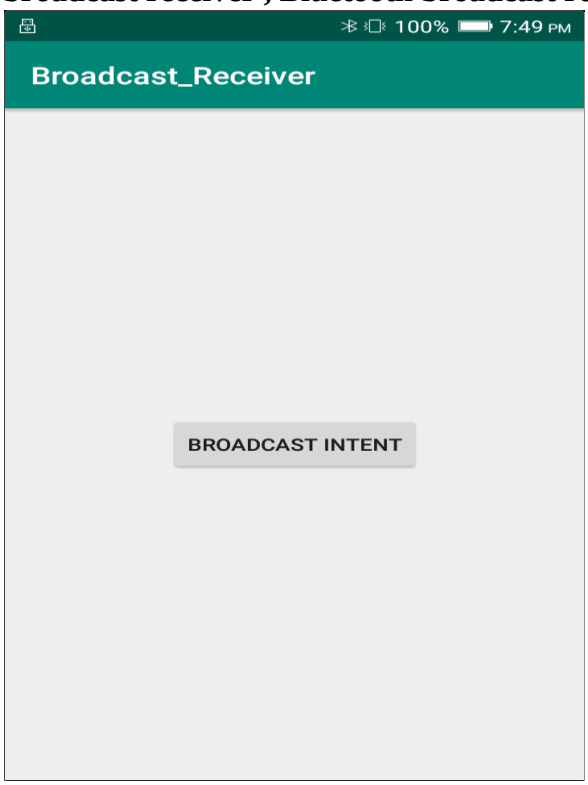


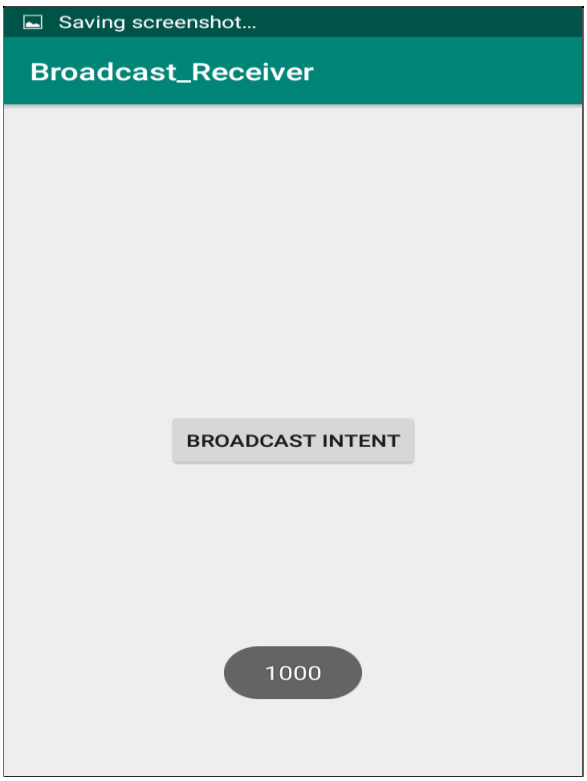




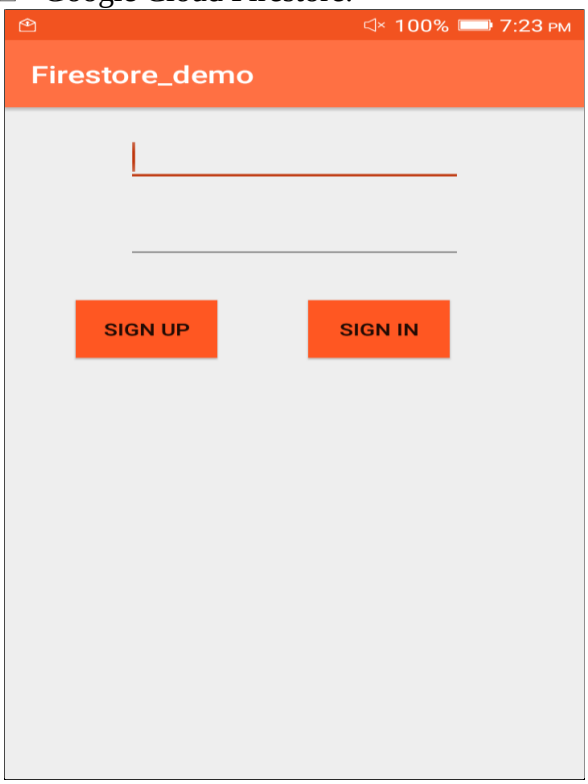
- Broadcast Receiver :

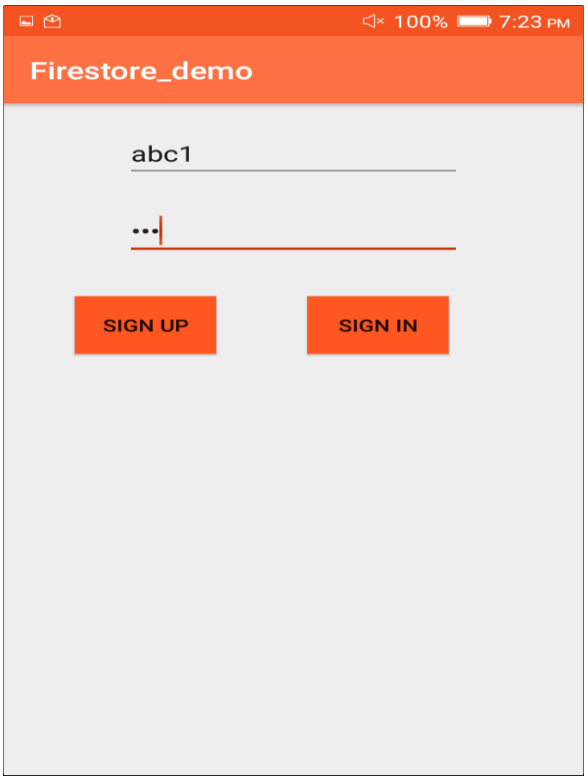
The broadcast receivers that I have implemented here are as follows Custom broadcast receiver , Bluetooth broadcast receiver and WIFI broadcast receiver.

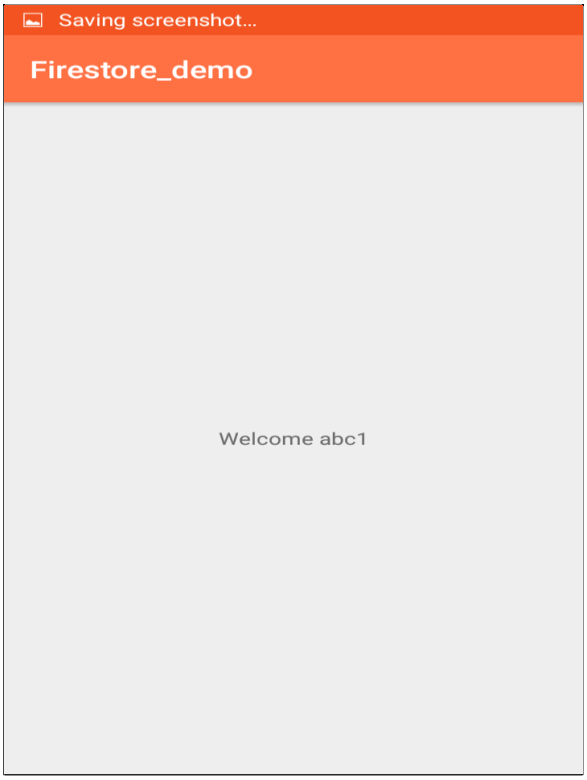


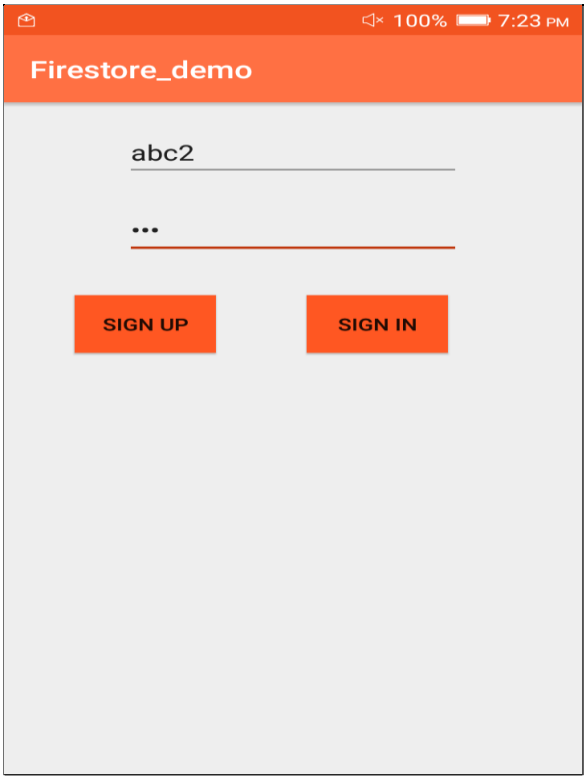


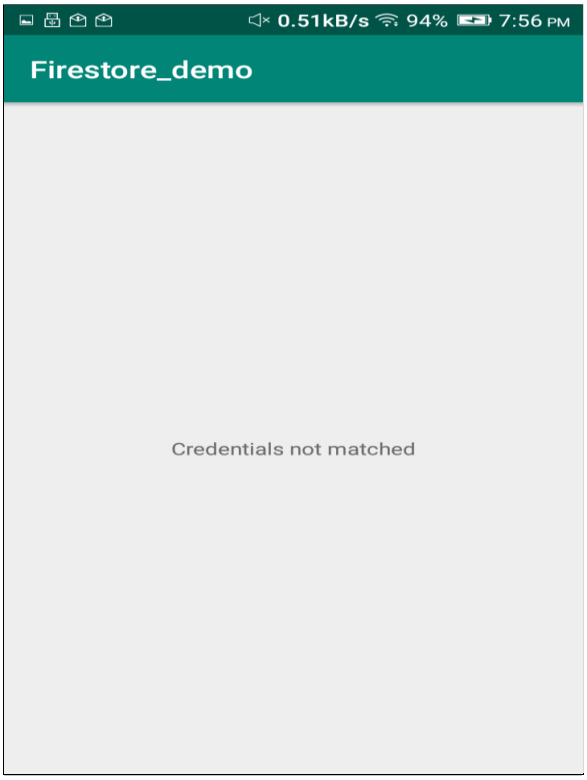
- Google Cloud Firestore:





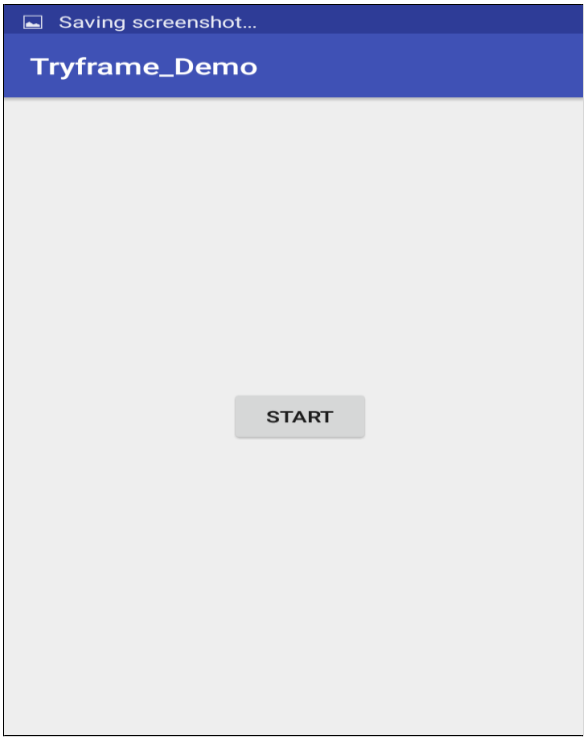

Saving screenshot...
Firestore_demo
Welcome abc1


100% 7:23 PM
Firestore_demo
abc2
SIGN UP
SIGN IN


0.51kB/s 94% 7:56 PM
Firestore_demo
Credentials not matched

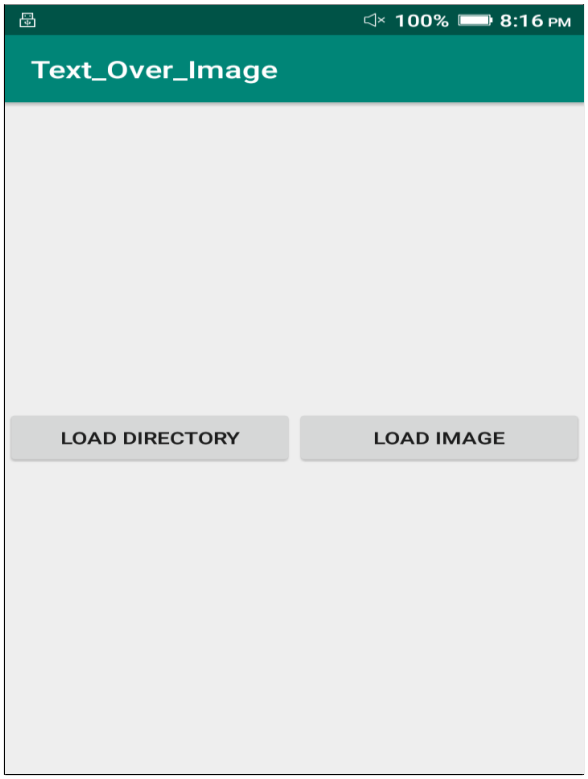
TryFrame :

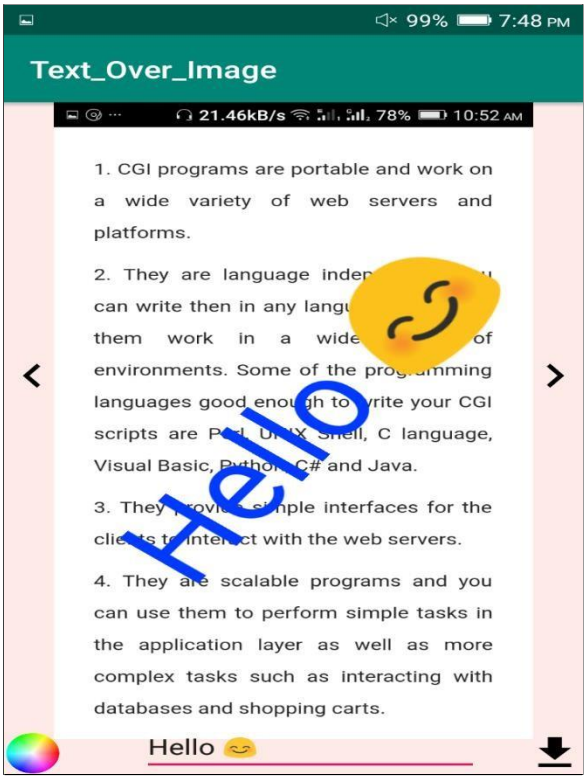
An app which uses Google Face API. Here facial landmarks are recognized. And an attempt has been made to implement something like Instagram filter. Here glasses are placed as filter on the face of the viewer if the phone is set to a specific angle.

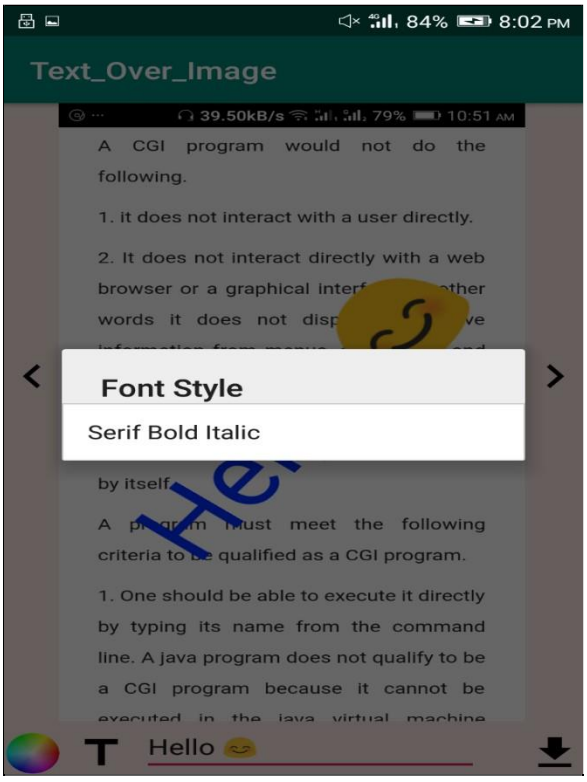


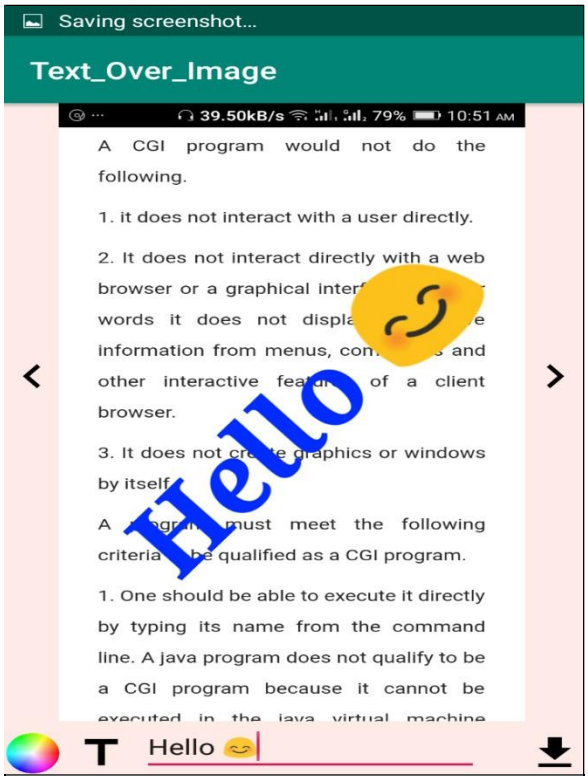
- Text over Image:

Placing text on the image and the editing the text. i.e. changing color, fonts, changing position and angle of text.


100% 8:16 PM
Text_Over_Image
LOAD DIRECTORY
LOAD IMAGE


99% 7:48 PM
Text_Over_Image
21.46kB/s 78% 10:52 AM
1. CGI programs are portable and work on a wide variety of web servers and platforms.
2. They are language inde
can write then in any langu
them work in a wide of
environments. Some of the prog mming
languages good enou gh to rite your CGI
scripts are P l, U X Shell, C language,
Visual Basic, Python, C# and Java.
3. They provi mple interfaces for the
clie ts t inter ct with the web servers.
4. They are scalable programs and you can use them to perform simple tasks in the application layer as well as more complex tasks such as interacting with databases and shopping carts.
Hello
Hello


84% 8:02 PM
Text_Over_Image
39.50kB/s 79% 10:51 AM
A CGI program would not do the following.
1. it does not interact with a user directly.
2. It does not interact directly with a web browser or a graphical inter
words it does not disp
Font Style
Serif Bold Italic
by itself.
A p gram must meet the following criteria to be qualified as a CGI program.
1. One should be able to execute it directly by typing its name from the command line. A java program does not qualify to be a CGI program because it cannot be
Hello


Saving screenshot...
Text_Over_Image
39.50kB/s 79% 10:51 AM
A CGI program would not do the following.
1. it does not interact with a user directly.
2. It does not interact directly with a web browser or a graphical inter
words it does not displa e information from menus, con and other interactive fea of a client browser.
3. It does not cr e graphics or windows by itself.
A gram must meet the following criteria be qualified as a CGI program.
1. One should be able to execute it directly by typing its name from the command line. A java program does not qualify to be a CGI program because it cannot be
Hello
Hello

Chapter 3. CONCLUSION

- I got to learn how the components that we have heard till now theoretically actually works. How these components apply to some real life applications.
- I got to know what the company culture is. How things work out there in the market. How people deal with their customers' requirements non-technical requirements are understood and fulfilled by the technical persons i.e. the developers.
- I had many astonishments on seeing how things that we have seen differently theoretically can be implemented in another better ways practically.
- At the end of the project, I loved the whole process of Summer Internship and found one of the paths to implements the theoretical knowledge practically out there in the real world.

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5. https://firebase.google.com/docs/firestore/query-data/get-data
6. https://www.raywenderlich.com/523-augmented-reality-in-android-with-google-s-face- api