

## INTRODUCTION

The aim the aim of this report is to describe in detail the design processes of the app called Alphabet Book.

The objective of the Alphabet Book app is to:

- Have two views, the main page called the overview and the secondary page called letter page.
- The main page contains the 26 button that corresponds to each letter of alphabets, each button opens a corresponding image in the letter page when pressed.
- The secondary page that has four buttons (the next, previous, the first, the last and the overview button) the overview button opens the main page, the last opens the image corresponding the last letter of the alphabet, the first opens the image corresponding to the first letter of alphabets, the next/previous opens the image corresponding with the next/previous letter of alphabets with reference to the currently opened image.
- The user having the option to take a photo and adding it to the Alphabet book app.

The **target audience** for the app is:

Children between the ages of the ages of 5-12 years and low literate adult users, the reason why a chose this kind of audience is because this app help them learn letters of alphabets a bit better, kids these days know how use certain apps before they even know how to correctly spell their own names so this app will be more will more like interactive learning for them audience.

People, especially young kids learn better when they enjoy what they are doing, they enjoy playing games more than they enjoy having. Plus, children most kids these days prefer playing with apps on phones rather than playing with toys accessibility may not be that much of problem, parents even allow kids to download and play apps on their smart phone.

The app has the following **additional features**:

1. *One button references more than just one image*, it opens the preview page that contains the images that have the names that starts with corresponding letter , for example button “A” can reference images named “Apple,Appricot,Abel,Amsatdam etc” . reason for this is because it makes no sense for an app to use only 26 images while the user may have

lots of images that he/she might want to use , allowing each button to reference more than one image will let be able use more than 26 Images, this possible by addict an addition page (activity) called “images set”.

2. *The main page (activity) has images as icons* that are associated with each button , that way the user can see what kind of images the button will open , it will be like a preview ,this makes the app look more visual attractive unlike when it is button with just a text .

3. *Automatic sorting*, when the user adds a new photo on the app , the image will added to the correct letter of alphabet or button , by doing this we avoid the user making mistakes which may lead to miseducation of the user ,remember that the app is intended to teach about the letters of alphabets so if a user makes a mistake of adding in the wrong place it will lead to misinformation .this will be achieved by the use of databases.

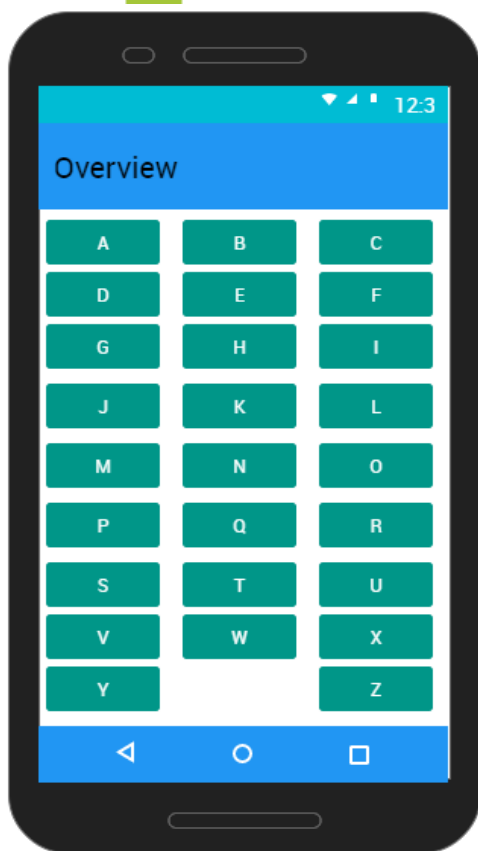
4. *Search*, the user will be able to search for the image he/she is looking for to see where it is placed , this is done to save time for user ,instead of going through all the buttons to see where the images is he/she

will be able to specify the image quickly, the data structure used is database because it's simple and very fast.

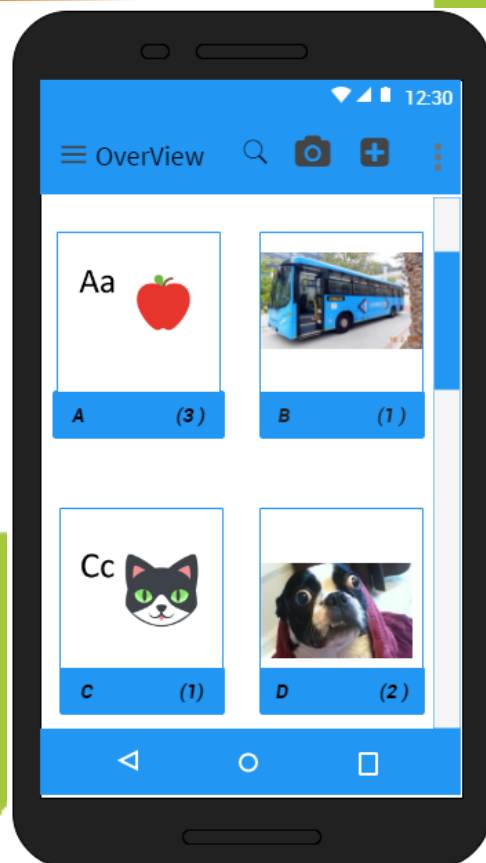
5. *Themes*, the user will be able to customize the colour appearance of the app, the reason is because different people have different tastes, since most of my target audience are small kids it is a good idea to give them a great visual experience.

## METHODS

The Initial main page design



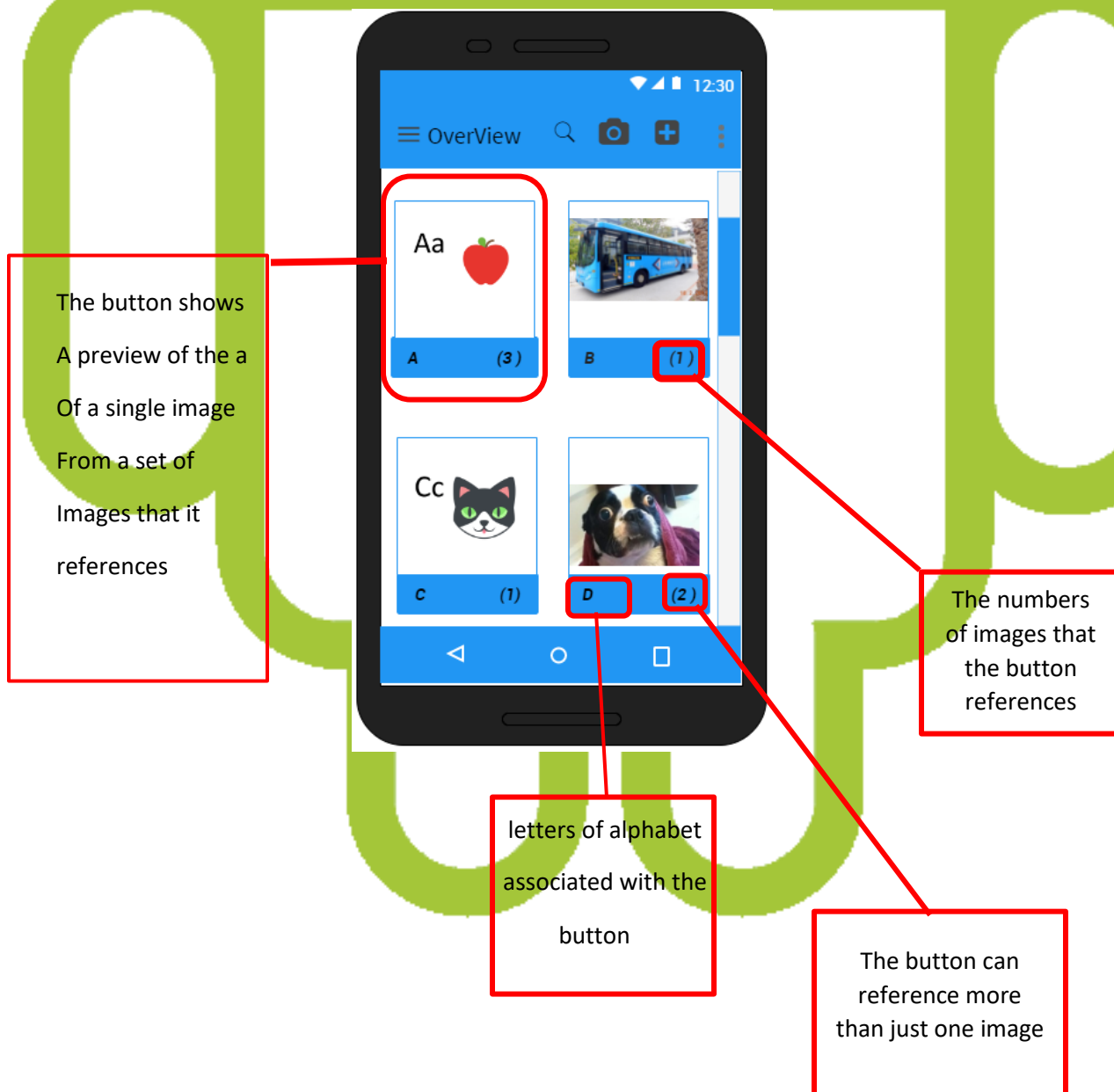
Final main page design

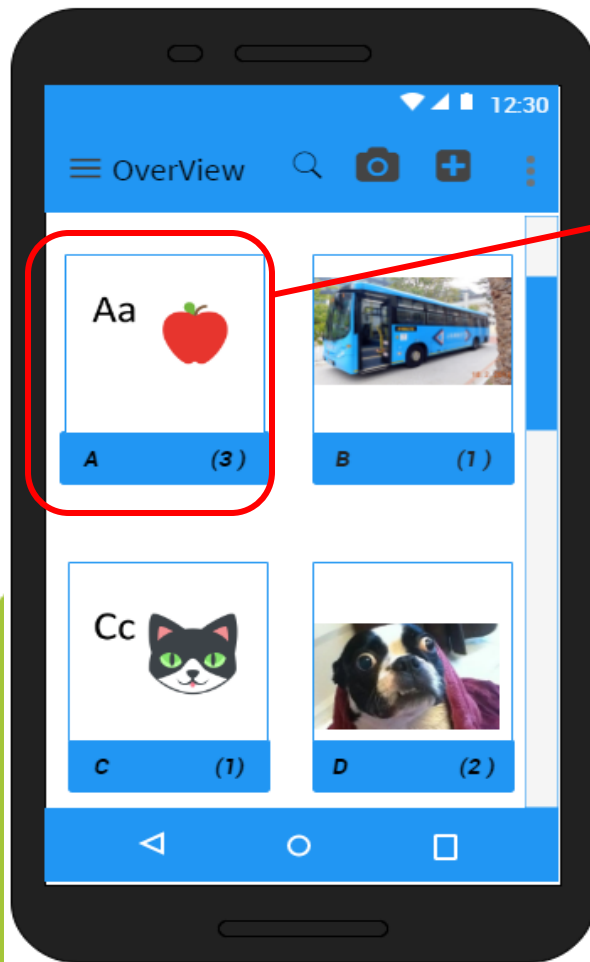


The above images show the initial design of the main page and the final design of the main page, the initial design was just too dull and not interesting.

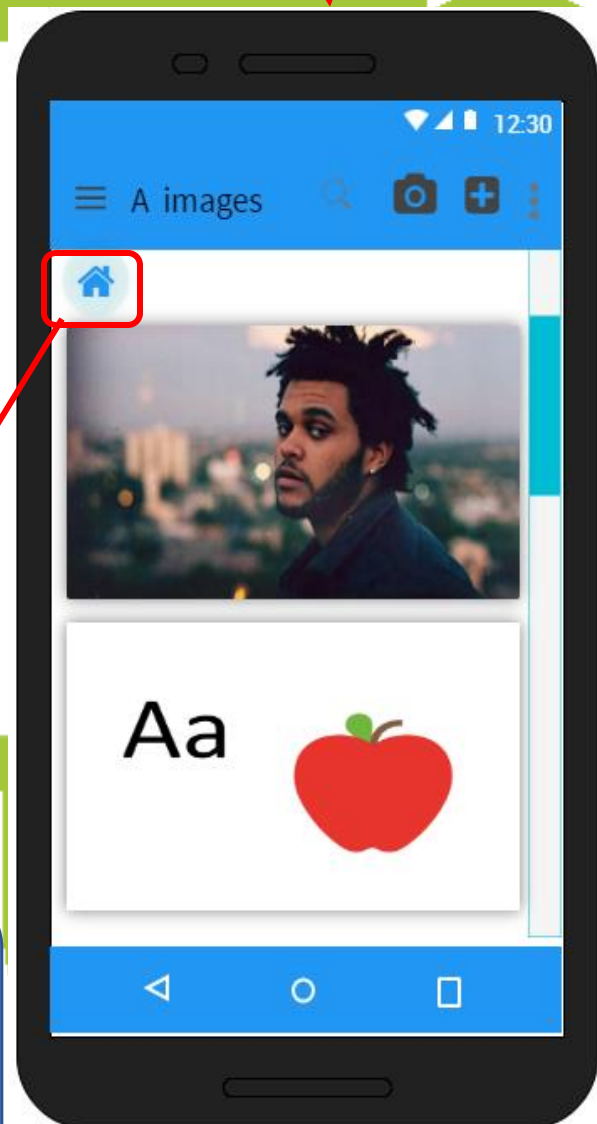
Final design of the main page includes the first two features that were elaborated in detail in the introduction of this report.

### Feature 1 and 2





pressed



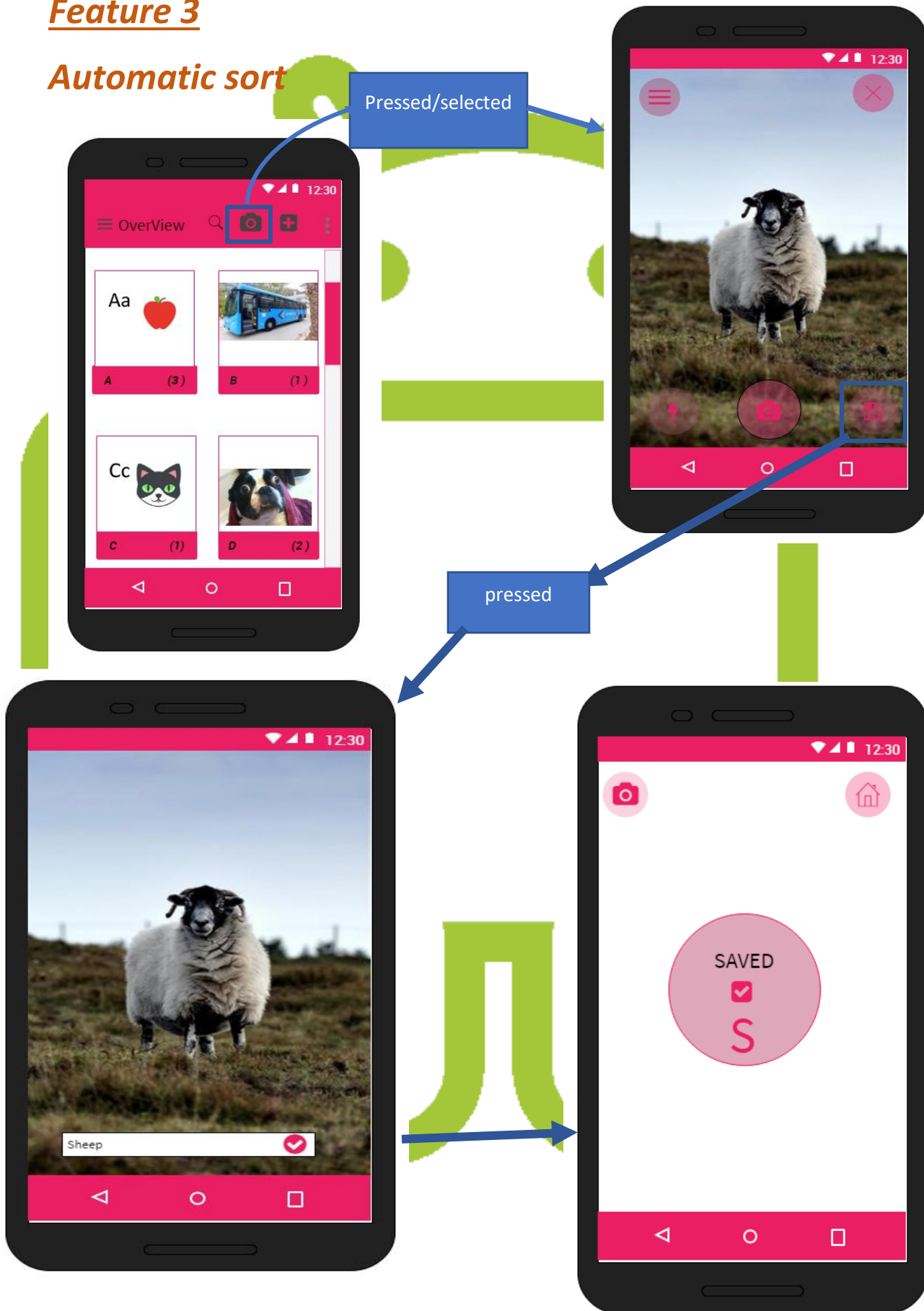
pressed

This diagram shows what happens when a button is pressed.

The letter page is opened ,the letter page may contain more than just one image ,in this case it contains three images, to view them all you have to scroll down.

### Feature 3

#### *Automatic sort*





The above diagram works as follows:

- When the camera icon is pressed the in build in camera view opens
- After the user takes a picture and clicks the save icon then the input text field pops up
- Then the user enters the name of the that he/she wants to use for the photo
- Then photo is automatically saved in correct place corresponding to the correct letter of the alphabet depending on the first letter on the name.

### The search feature

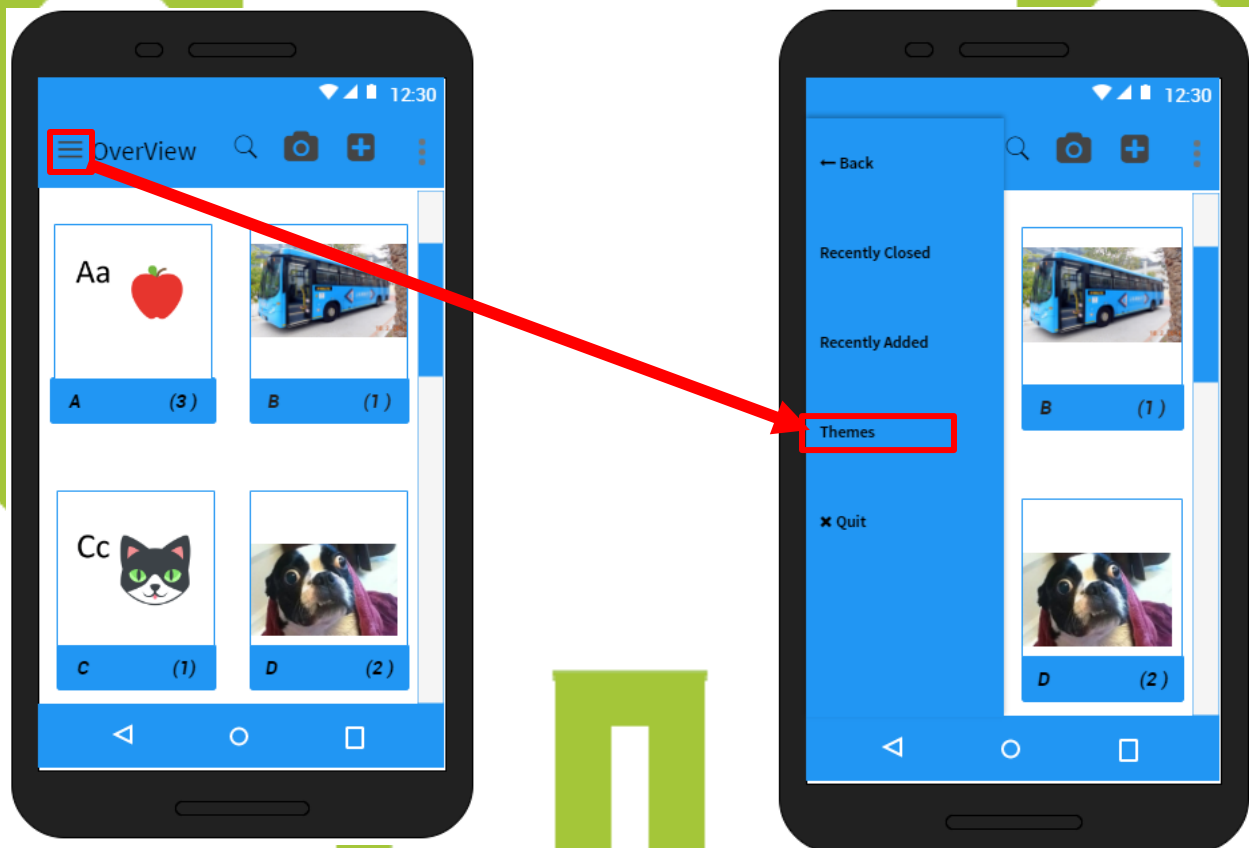


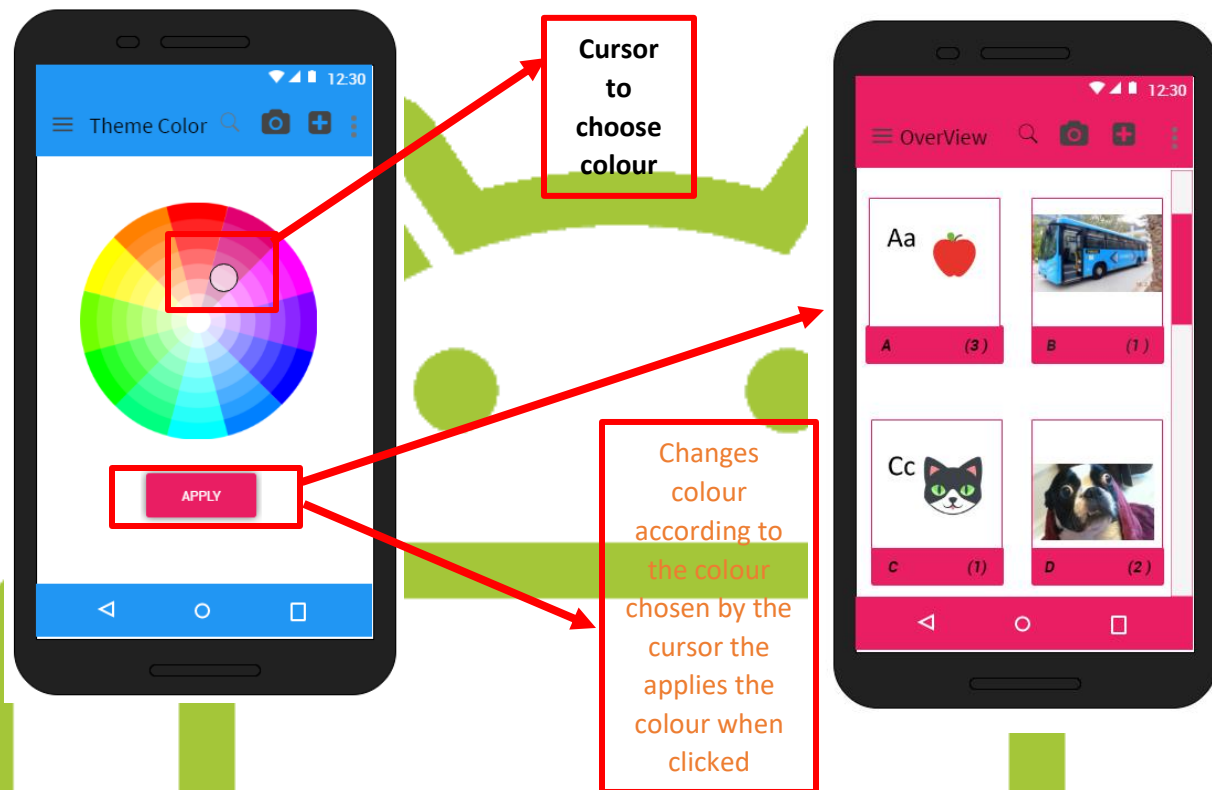


The above diagram works as follows:

- When a user clicks the search button, the input text field pops up then he/she enters the name of the images he/she is looking for
- The coloured letter next to the photo tells the user where the picture is stored and gives the user preview of the photo

### The theme feature





## RESULTS AND DISCUSSION

To prototype the app I used a free open source software called Mock flow, at first I had a problem finding certain native android layout features , I had to go watch YouTube videos on how to use find the and use them

After that life was a little bit easier, I also had difficulties linking the pages after each other as they depend on each other's action.

Most of these additional features required a good knowledge of basic computer science data structures, data bases to be exact , the data base data structure is

chosen because it requires less coding and it is more easier to understand on the surface .

The app can't do certain things though , it can't share images via Bluetooth or internet , it also cant set background images , the theme can only change colours that's all as far as customization goes

## **CONCLUSION.**

There's more to building an app than just being a good coder, you have follow the design principles that will make a clean user friendly interface .to achieve this, I used a very basic straight forward design process:

- Empathize
- Define
- Ideate
- Prototype
- Test

The future it be Ideal to be able to prototype for multiple api's without having to change too much of the layout.