ALPHABET PROTOTYPE

BY

MHOLI MNCUBE

General App Objective

- Develop a mobile application that enables users to:
  - Create profile so data changed in the application is saved
  - Select any alphabet, color it, save it and make it a background
  - Upload an alphabet or any picture, color it and share it
  - Submit feedback on application by rating it

- Assumptions
  - Users are literate (read and write) basic English

Use Cases

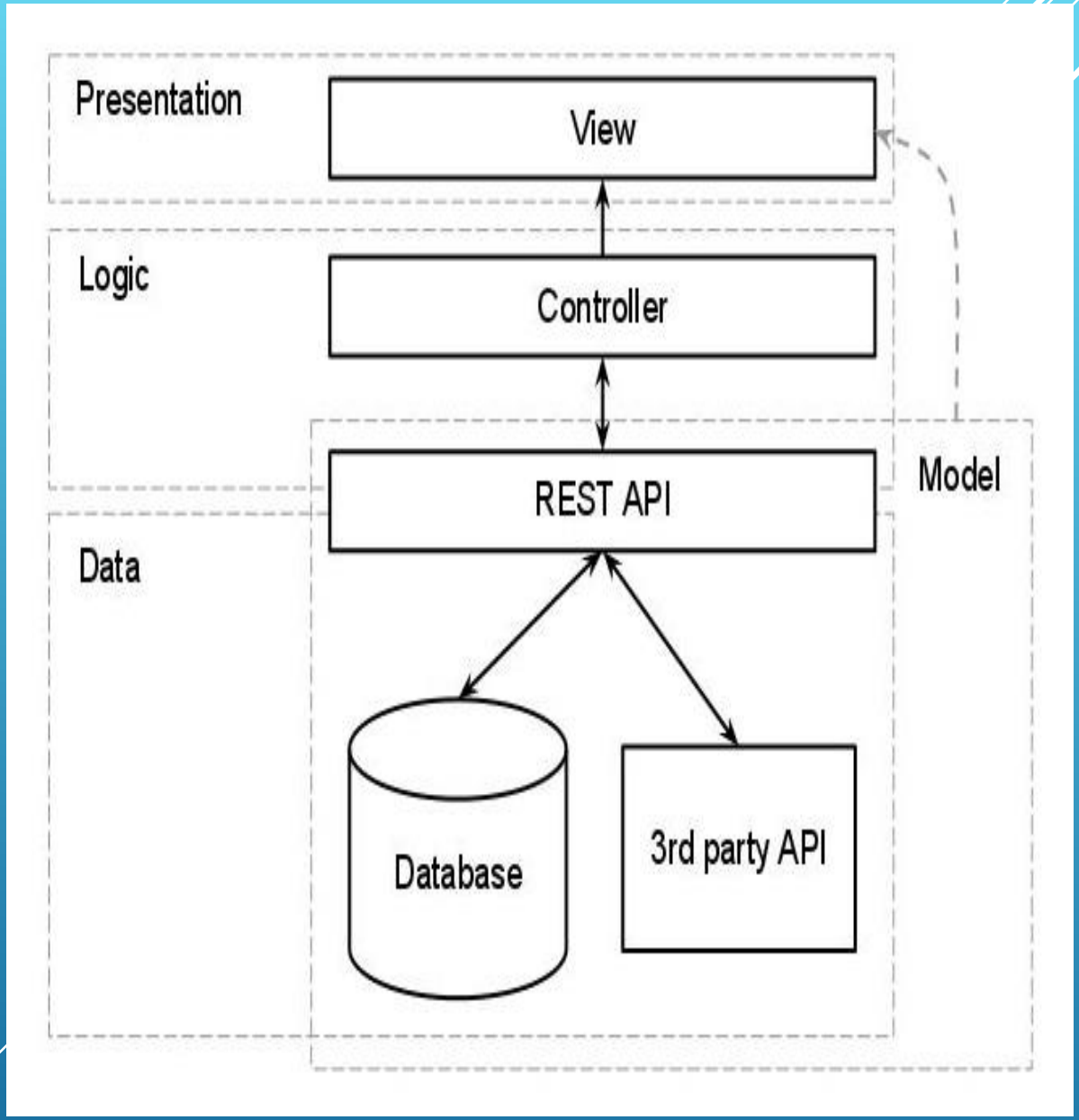
- User wants to create a account in the application
- User wants to log in, and use the application then save activities
- User clicks on alphabet and colors it
- User saves the colored picture of the alphabet
- User wants to make the colored picture of alphabet a background
- User wants to upload a picture
- User wants to color the uploaded picture
- User wants to share the colored picture with family and friends
- User submits a rating after using the application for improvements or addition of new features

Application Architecture

Presentation layer is responsible for user interface how it looks and design which the end-user will be interacting with e.g. home screen (UI).

Logic layer is responsible for the classes built for the application to interact with each other, so whole application has meaning does what it is instructed to do e.g clicking on letter to move to another activity or coloring.

Data layer is layer where data is stored for the application e.g. stored pictures



Application Architecture

View (Home screen view, alphabets view, upload and download pictures)

Controller (Coloring tool box, navigation buttons, feedback outputs)

Data (Alphabets pictures, random pictures, created pictures etc.)

High fidelity Prototype

High fidelity prototype is a design mainly based on visuals of the system you trying to build, it makes it easier to build, predict unseen predicaments that might occur, most importantly it makes it easier for development team to understand the system.

The following slides focus on the basic functionally of the application designed from the basic alphabet application.

Overview:
The alphabet android application is designed to help children and adults to learn or reteach themselves alphabets and also build wall papers with the features added.

Target Audience:
The application is targeting children who are still learning alphabets or those who aren't confident in them, it also targets adults who maybe have suffered from brain injury and have to re-teach themselves how to talk or read

Assumptions:
The end-users of the application have prior knowledge of alphabet system even if it is minimal.

Figure 1

Figure 1 shows a mobile application that is running on an android platform. “Good judgment is result of experience…Experience is result of bad judgment” – Fred Brooks. Here Fred books explains how one initially looks at design based on personal experience or maybe of a close friend. This design is based on heuristics which is a concept that says you become better at something through experience. So my exposure to a lot of applications inspired me to create this simple yet exquisite design. This design uses the concept of heuristics where user is generally familiar with applications and navigating through them makes is intuitive. For instance the alphabets status bar is used because familiar to that of Facebook. so gives user sense of familiarity. Button use color of traffic robots intuitively one knows what each one stands for, hence has similar function on this application.

Figure 2

Figure 2 shows a mobile application that is running on an android platform. The sign up feature added to this application is used to create a profile for the user so they able to continue where they left of when they destroy the application or exit it. This simple design is same in most applications so a lot of users will be able to use it, this concept of using similar design layout is called iteration, this helps keep familiar interface throughout use of the application. In this figure 2 you can see layout is still the same as home screen. The feature added here is the profile as stipulated above so user signs up and the following figure when user enters details is shown.

Figure 3

Figure 3 The keyboard pops up when you click on the name space field when entering credentials for your profile. This design is still kept constant with the activity bar at the top of the application page and the menu bar at the footer of the application. This makes navigating through the application easy and intuitive and through heuristics users are never confused as to how to use the application (Siraj Ahmed, 2007).

Right after signing up and clicking on the sign up submit button you are taken to the home screen with the clickable buttons of alphabets.

Figure 4 shows the high fidelity prototype in action.

Figure 4 This activity form is where the most the actions and controls take place. Even in this screen the color is calm to keep the user ease with the constant color contrast. The activity bar displaying user's name and icon for picture to be inserted if user wishes to put a profile picture is influenced by Facebook user profile. Here the may wish to edit/update their information etc. The color choice of blue is because everyone is familiar with water and is healthy this also drives users to feel safe as water is healthy and source of life. So users on this screen click any letter e.g. "B" and are taken to the following screen Figure 5.

Figure 4

Figure 5

Figure 5 This is where the learning and fun becomes a reality whilst user is trying to understand alphabets by clicking on them, thinking of words that start with the letter they can also color the letter they chose to their color or choice. "Communication is key" – Unknown

The screen displays a message on how to use this function of coloring. "Click on color and pain" is the message communicated to the user. This concept of communication is referred to as responsive controls in figure 6 we see user having selected colors the letter is colored to their choice. Again we see a constant flow of layout and easy controls to navigate throughout the application

This concept is called mapping.

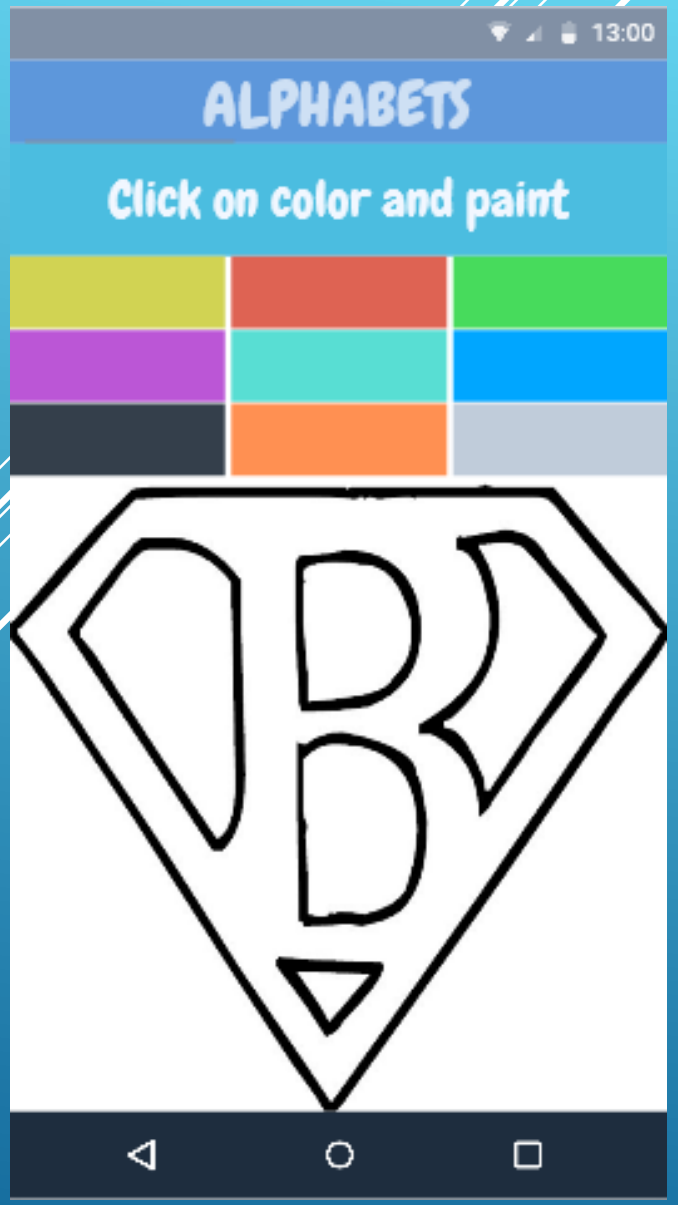


Figure 6

Figure 6 This feature of coloring letter is added to entice the user to be creative and give full attention to the application. With this feature the user could also think of colors starting with a letter and use it to color. Giving control to the user to express and do as they feel in the application is great design feature which incorporates the 80/20 Pareto Law that 20% of functionality will account for 80% of usage. Adding to the coloring feature is auxiliary feature a different from design principles but powerful in psychology, where user exports their creative side to somewhat have virtual tangible item they made themselves. This feature is explained well in the following figure 7.

Figure 7

Figure 7 When you done with your creative ideas users are able export their work keep it on the phone and make it a background which is great idea given the fact that, data prices are expensive and downloading images for wallpapers depletes your data. One can design take letter color and save it or make it a background wallpaper.

This is influenced by low internet penetration in some places. The side pop up sub menu is triggered by clicking on the completed (colored) picture where user can choose to save it, share it or upload another picture or save it as a background. Figure 8 shows a picture that was selected from alphabets and is colored and made a background.

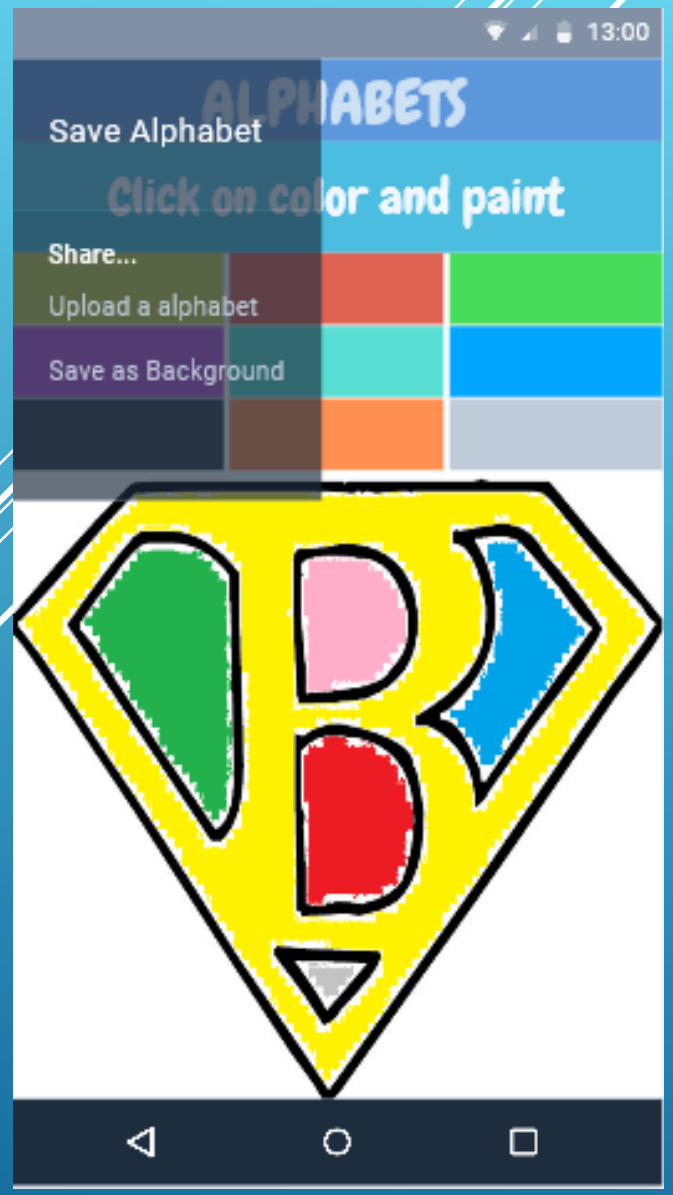


Figure 8

Figure 8 Shows the finished colored picture as a background on an android platform phone. We can clearly see a instant feedback of the the works done on this application. Now users are able to create letters for other users if they wish to how they will get it to them, will be explained a little later. The design of the screen is still constant no change to chase the user away from using this application. To show the works of easy navigation use can select menu button at the bottom of screen the square box and they will be taken back to the home screen where they choose another letter. The user maybe also choose to upload their own letters or random pictures to color. This feature is great because it gives the user more control then before. Figure 9 shows home and how we go to figure 10 which will lead to uploading a picture.

Figure 9

Figure 9

The user can go back to this menu by either clicking on triangle which “back”, or jump to this activity by clicking on the square the home button. The feature is chosen because through out the application the user has been using these controls and by now they they are familiar with them. Iterative heuristics is the aim making sure users are never confused or idle because they don’t know what to Do. Let’s assume the user clicks back button and wants to upload a picture. Again here we giving user full control of usage of the app. 80/20 Law.

Figure 10

As is with figure 5 the user still has full functionality of the controls being able to use paint toolbox to color letters. Constant layout and effective mapping of controls and views. Assume now the user has selected the option to upload a picture. The following figure 11 will return.

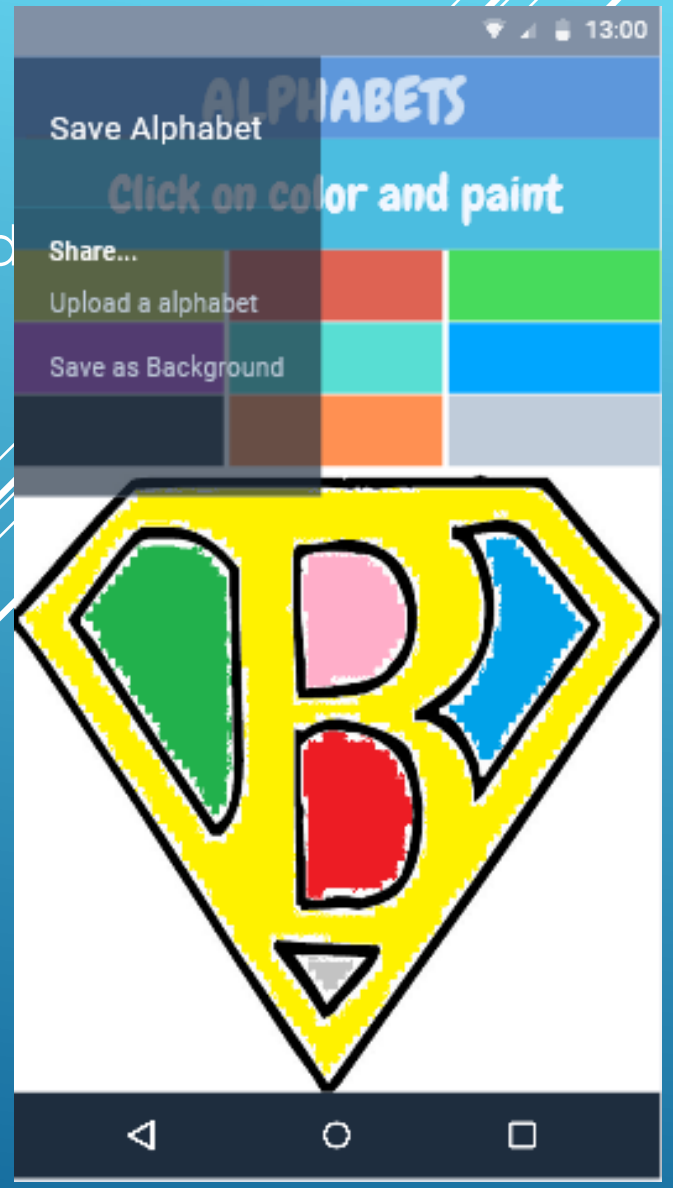


Figure 11

The view takes you out of the application and allows you to peek at your gallery pictures select those pictures you wish to upload and color. This a feature that was mentioned earlier on. Usability of the user's resources always makes users special because they building from what they originally had and not using given data. After the user selects "S" it will be displayed on figure 12. I personally like this feature because it has that ability that other apps, the like of, Instagram, Facebook and twitter has.

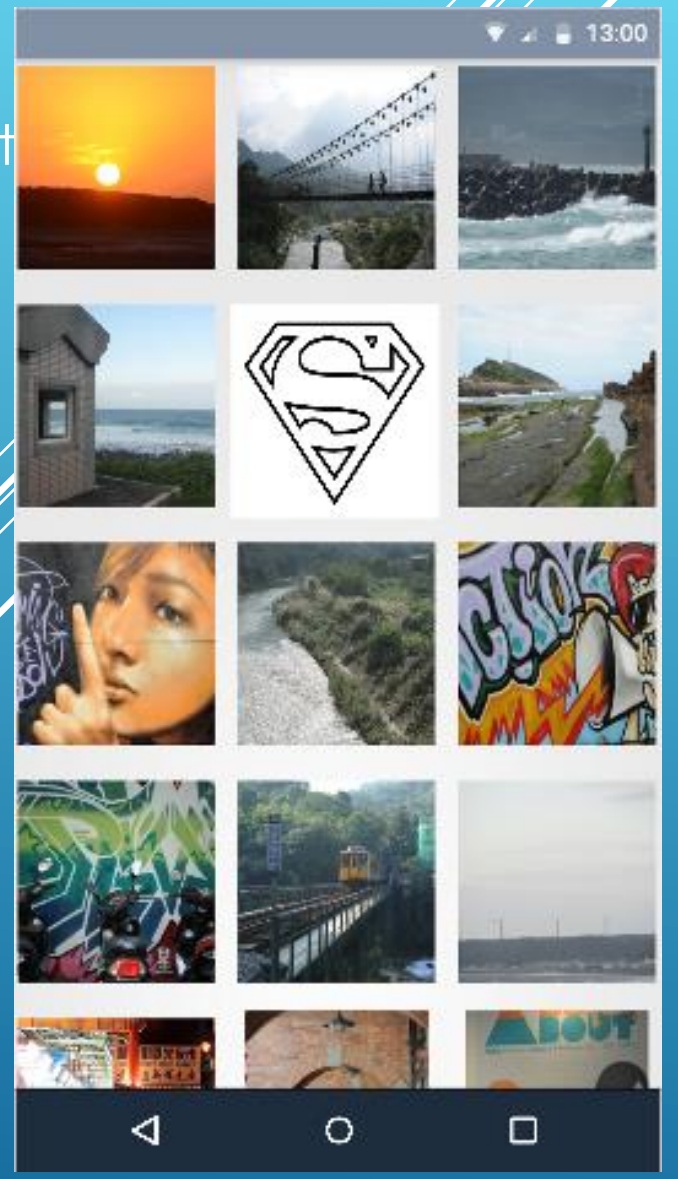


Figure 12

Same principles used in figure 5 are used in this frame, user has ability to color the picture as they wish. This looks like a a superman logo, maybe coloring it in it's intuitive colors might spark some good memories of superman. Figure 13 shows the "after", when the picture is colored by the user. These features really work are for the users, they might spend 30-45 min on this application making wallpapers etc.

Figure 12

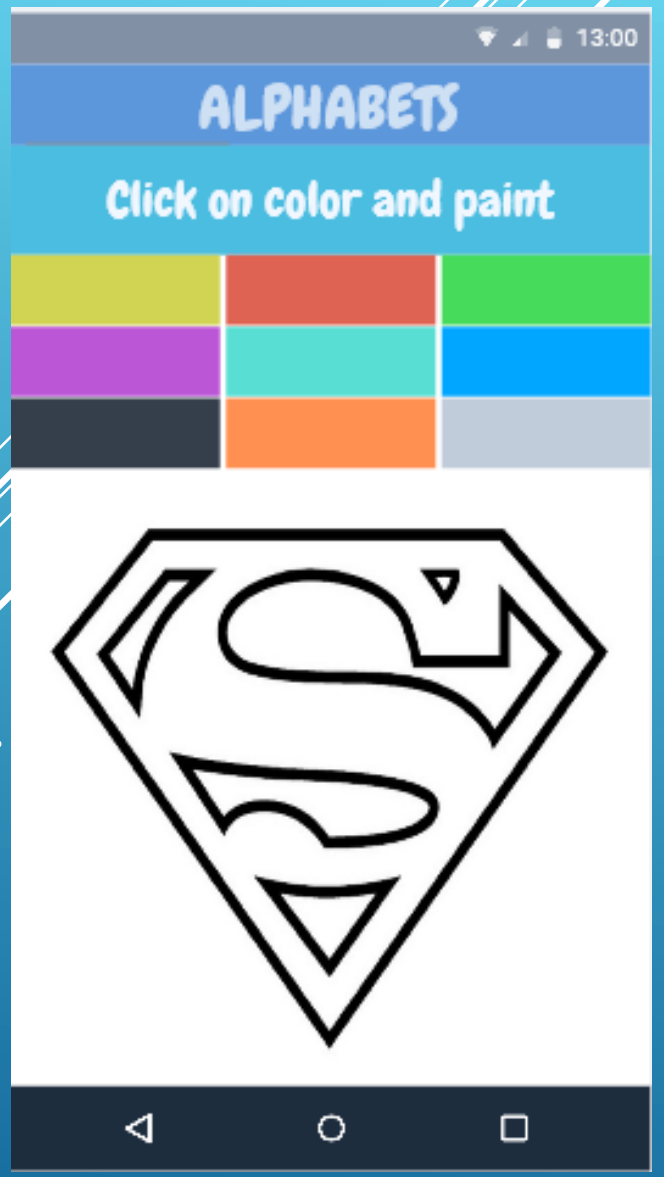


Figure 13

Figure 13

Sometimes it so happens that one does something great in design and want to share it with family and friends or rest of the world. I have added another feature to allow the user to share the creative works they do with the rest of the world. This idea is driven on the basis of high internet penetration and e-Market and how one can build a brand from this or as a kid, or adult use this to show case your skills.

The user clicks on the picture and menu pops up with Options.

Figure 14

Figure 14

The flow of the activities on the application are consistent when mapping of elements and activities you find satisfactory results from your audience and great feed back Here the user selects share to showcase the world his great works. Figure 15 shows the options of platforms one can use

Figure 15

Figure 15

In this screen the layout slightly different but still retains familiarity with the other screens such powerful concept of heuristics. There's a variety of options the end user can use to post the image they created. For the purpose of this prototype we will use Picasa a photo blogging site for personal or business use. We show full response of this great feature on the Picasa blog in Figure 16. This layout of whitespace done intentionally so one can select icons clearly without being confused. Simple and sophisticated at the same time.

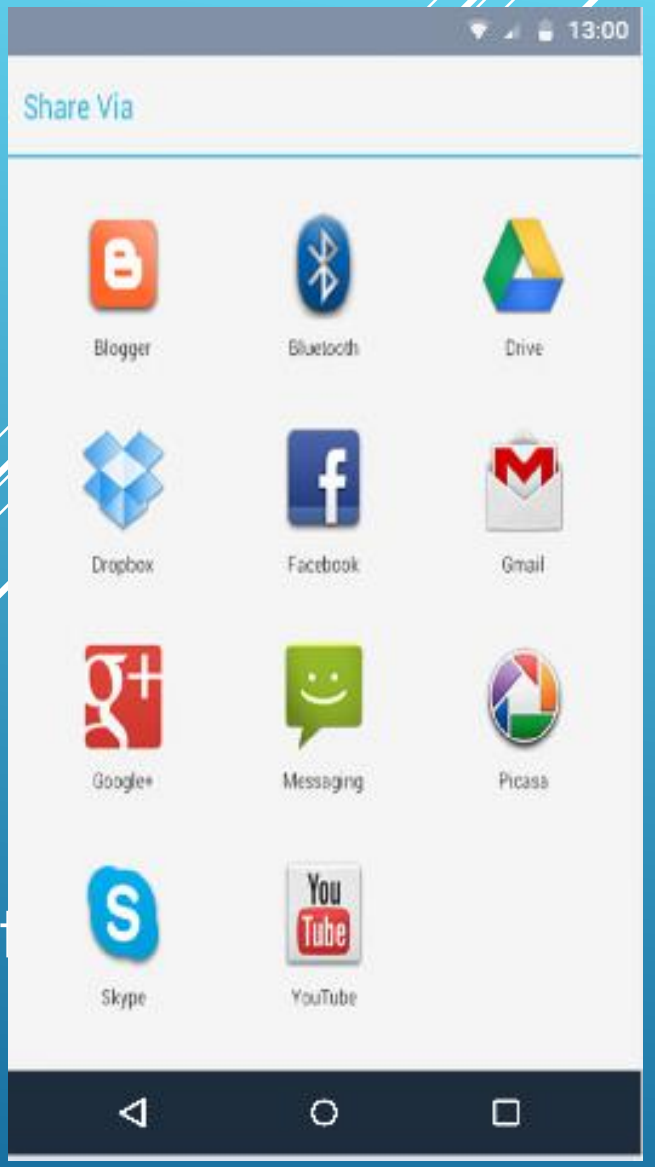


Figure 16

Figure 16

As we the young generation and older are exposed to the era or social media, one can stand a chance to be a brand by "creating online content" and even get paid money so this feature is really great. The inspiration is from Bill Gates who hypothesized the beginning of a new era of e-commerce. So here you see the four if not more features added from the basic application of clicking on a button with a letter and a picture of a letter pops up.

The prototype shows how these activities work hand in hand.

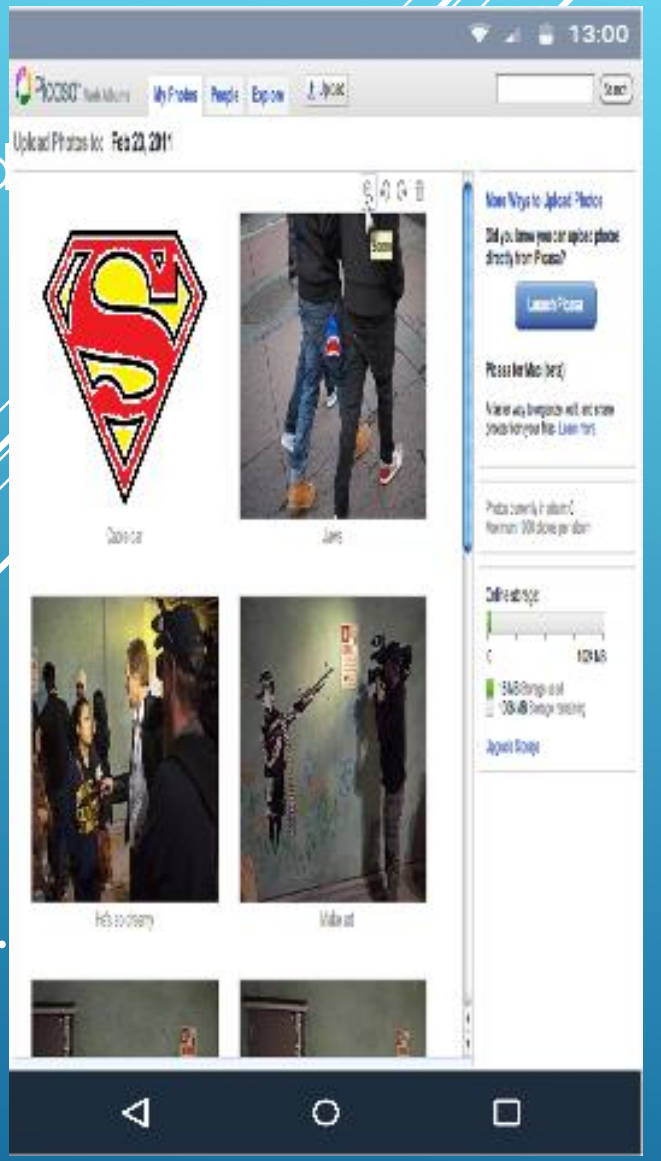


Figure 17

This feature is probably one of the most overlooked features, but I rate it as one of the most important ones. Here in figure 17 the user gives feedback on how was the experience of Using the application, this helps the user experience to get improved and any bugs or errors encountered fixed. It also presents new fresh exciting ideas that might be proposed by users. The concept covered here are feedback.

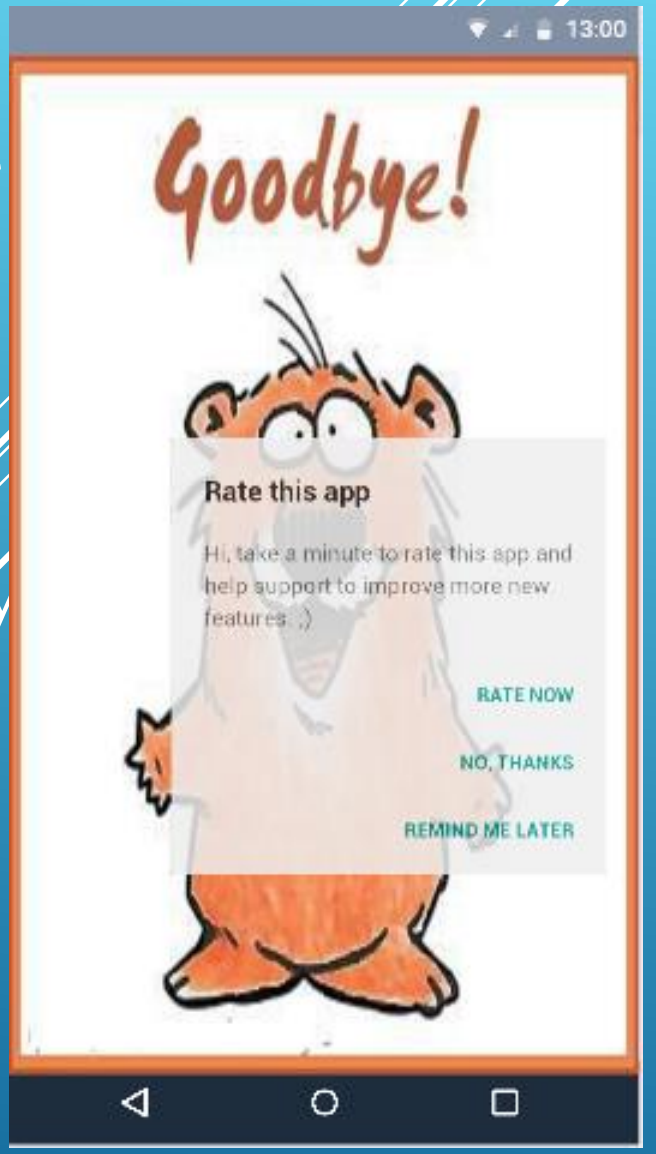


Figure 18

Figure 18

This amazing application prototype can be experienced first hand by going to the link below and running the prototype.

Some general tips on running the prototype:

Click anywhere on the device to see where the navigation linked elements on the screen are

Link below:

https://marvelapp.com/6hih7b4