



EDUAPP-Android Application For Education

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Abstract: EDUAPP is an android application where the kids can learn many things completely new to them. Application is designed for the children between the age of 4 to 11. Our application introduces kids to learn technology in a positive way. It contains features like painting and drawing, alphabet recognition, multiplication table, Picture recognition. User just need to have the application in their android phone. User has to open the application and select one of the features. For example, if the user clicks on multiplication table then select one of the numbers and click on select. Then multiplication table of particular number is displayed. This application helps kids to learn with fun and artistic way.

Keywords: Educational app for Children, Extensible Markup Language, Android studio.

I. INTRODUCTION

Android application designed using java as a coding language and XML for user interface design. Main goal of designing this application is to learn concepts in an attractive and effective way. We have particularly created this application targeting the children between the age of 4-11.

This application is created with lot of attractive videos and educational games. User need to click on the feature he/she needs to work on. Using this application students can learn all the feature in an effective manner. Gone are those days when classroom learning was necessary. Accessibility for our application is very easy. User need to have good internet connectivity.

This application will assist them in learning. Over the past few decades, influence of technology upon children and education has been immense. Even average families can afford a mobile phone in which applications can be downloaded. So we as a team thought this application will have many scope of application. This application is a sincere effort in making education interesting for the small kids.

This project is an android application developed using the tool Android Studio. In order to develop this application, Java for coding, firebase for database XML for better user interface is used. Using these tools an interactive application can be developed.

II. EXISTING SYSTEM

There is a prominent amount of research have gone on educational app, but every research has risen to any real-life solutions. For now, very few solutions are available those are:

- complicated for children's
- Lack of security
- Duplication of data entry

III. PROPOSED SYSTEM

This application is created with lot of attractive videos and educational games. User need to click on the feature he/she needs to work on. Using this application students can learn all the feature in an effective manner. Gone are those days when classroom learning was necessary. Accessibility for our application is very easy. User need to have good internet connectivity.

Both parents and children will be benefited by using this application. This application can be anywhere from the world. As education plays a salient role in building personality of every individual. As this application is developed for small kids it does have features suitable for only kids only of that age mentioned above. We have undertaken a study and listed some features like drawing, painting, alphabets recognition, rhymes , multiplication tables.

By using our application all the above mentioned things can be learnt for free. This project can be further enhanced by increasing the age constraint. Which means in future this application can be made available to children more than 11 years of age. Stakeholders of this application are students , parents and developer. But it can be extended by adding teachers. Then it will become more attractive as well as interactive.

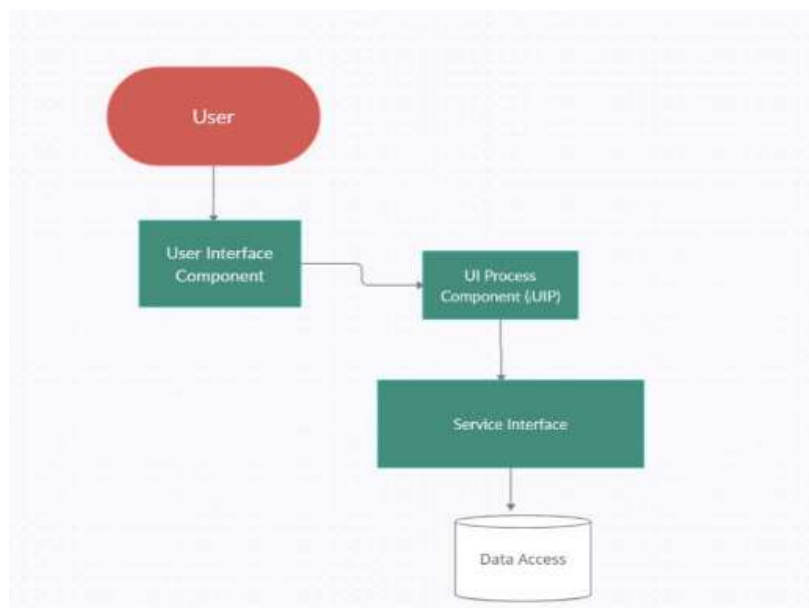


Fig. 1 Architecture Diagram

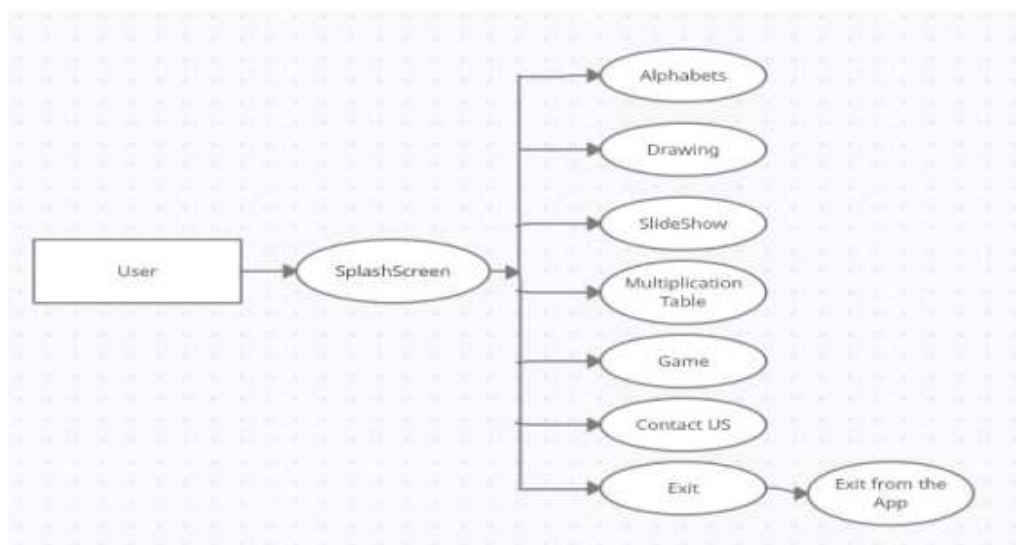
Workflow of the application

Fig. 2 Detailed Data Flow Diagram

**Module Description:****1. Module Name : Alphabet**

- Input –Select the any a Letter
- Process - Display the Alphabets and worlds start with specified alphabets
- Output – User will Learn the Alphabets

2. Module Name : Drawing

- Input –Select the color
- Process - draw the picture
- Output - User will learn the drawing

3. Module Name : Slideshow

- Input –Select the module
- Process - Display the picture one by one
- Output – Children will able to recognize the picture

4. Module Name : Multiplication Table

- Input: Click on the module and gives the number
- Process: Display the selected number multiplication table
- Output: User will learn the Multiplication table

5. Module Name: Game

- Input: Click on the module and select difficulty level
- Process: play the memory game
- Output: children's learn the recognition and memorizing of the picture

6. Module Name: Contact us

- Input: Click on the module
- Process: Developer name and email address will be displayed
- Output: User can contact the developer directly

7. Module name: exit

- Input: Click on the module
- Process: Display the Dialogue box for conforming the app close
- Output: App closed

IV. OUTCOME

The purpose of testing is to find errors. Testing is the process of discovering every possible fault or weakness in a work product. It provides a way to check the performances of components, assemblies, sub-assemblies, and a finished product. It is the process of utilizing software with the aim of ensuring that the software system meets its requirements, user expectations and does not fail in an inadmissible manner



Test id	Tested feature	Sample Input	Expected Output	Actual Output	Remarks
1	Click on the required letter	Click on the letter 'B'	It should show Bear image	It has shown bear image	Pass
2	Click on the required letter	Click on the letter 'C'	It should show image of cat	It has shown image of cat	Pass
3	Click on the required number	Click on number 8	It should show table 8	It has shown table 8	Pass
4	If we enter a letter or special character	Enter a letter	Enter a number	Enter a number	Pass
5	Selecting colour to draw	Select a brush and color	Please select a color	Please select a color	Pass
6.	Want to save the picture	Click on save	Do you want to save the image	Do you want to save the image	Pass
7.	All the drawn images should be	Please click on save button	Images are saved	Images are saved	Pass

	saved				
8	Start a new drawing on old drawing	Start a new drawing	Start a new drawing(you will lose current drawing)?	Start a new drawing(you will lose current drawing)?	Pass
9	Click Here to choose the option	Click here to choose	It will show all the available options	It will show all the available options	Pass
10	Clicking on reset activity	Click on reset button	Functionality should work from beginning	Functionality should work from beginning	Pass
11	Choose any one of the button	Anyone button should be clicked	Please click any one of the option	Please click any one of the option	Pass

V. CONCLUSION

During development of this project we got to know many new things. This application enhanced knowledge on android application. It also helped kids to enhance their skills. During development of this application it helped us to gain real time development of an application. This application is open to any changes. It contains many activities. Each activity will perform different operations. Customers facing economic hardship need not worry as this application is free of cost.

This application is developed in such a way that it is reliable and effective. Here every feature and functionality worked as expected during development. After successful implementation of all these features it increased creativity , critical thinking and coding capacity of each individual involved in the project

VI. FUTURE SCOPE

In future this model can be applied to larger fields where now we have considered only Bengaluru

1. Age limit of kids can be increased to more than 11 years
2. Add many more features like quiz , testing apps (like examination function) to make application more advanced
3. By adding trainers into this project, students can get coaching for many high-level competitive exams.

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