A simple PDF Converter using Android with built in editing features

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Abstract – We have seen a massive growth in PDF file usage. A PDF file is something which is used by approx. everyone. It is a necessary thing for all, and it became a must have thing. Everyone must have used PDF file at some point in their life. It is used by professors, students, working professional, common people. Professors use it to make examination paper for students, guidelines for students, any notice for students etc. students are use it for making answer sheet, organizing documents, making assignment etc. working professional use PDF for making their work-related documents, and for some other reasons. Common people use it for organizing govt ids, organizing home registration paper etc. You can organize documents thorough it very easily. So, to make PDF it is essential that you have a PDF converter in your device otherwise how can you make PDF. Here, this app helps you. Which is an android app. Which helps you to make PDF very easily. You can do editing in it also, very easily. Which make it a better app. This article shows you why we choose android OS over other and why we choose Waterfall model. Hope this helps the researchers.

Keywords – Android application, PDF Converter, Waterfall Model.

Introduction

In today's world document is something which is essential for every human being. If we want to prove someone that we are right and not telling lie, we have to prove them by showing documents (related to that topic). We have different type of document like Govt. IDs, college id, our work-related documents etc. In early days documents are many stores in physical form. But now a days as technology grows, we store our documents in our devices like mobile, laptop etc. There are lots of documents in our device and to manage them is a little hard task.

Here pdf converter makes our work easier. If we want to send a group of documents, we can make a pdf file and easily share it with anyone through our device. We can make a group of similar type of documents into a single document using pdf converter.

This format of document is developed by adobe in 1992 [1]. Full form of pdf is portable document format and as its name suggest it is a portable format, in which you can organize your documents.

A pdf file can contain different types of content like – text, image, shapes etc. [1]. If we want to print large number of documents in a series (using printer), then it is very beneficial to us if we use a pdf file.

In today's world smartphone became very important part of our life. A very large number of works we can do through our smartphone. That's why we choose to make research on android application (PDF Converter). After choosing the technology for my research, the next step is to choose the software development model. We choose the Waterfall model for our research because it is very widely used approach and the most common approach. It ensures the success of your project [2]. You work phase wise in this model, if you complete the first phase then only you can go to the next phase. There is total 7 phases in this model.

Literature survey –

Till the date, much research has been done on pdf converter. Researchers have used different kind of techniques for their research. Researchers make pdf - to - text conversion system which is something related to our work. They used NLP

approach for that [3]. Most of the today's pdf converter application using logic to make a simple text to pdf or image to pdf converter. But our approach is to make an app in which you can edit your image, re – arrange your images, and some more tasks like (merge and split pdf). Association of information and event management make a survey in 2008 and found that 90% of the members of their organization store information in pdf [4]. If we see the data of OS market share, we will see that android has more that 70% of market share in OS field [5].

Methodology

It is a user centric application. Which is made to give a user simple UI that makes it user friendly. The icons and the options menu made in this app is bold and very clear. Any type of user can easily interact with it.

Survey –

Many pdf converter applications are made before. So, it is important to take feedback from a group of people that, what they want from a pdf converter app. What are their needs and wants? This survey is conducted on 30 students of a class who are currently doing pg. course. Fig. 1 shows that most of the people want a pdf converter app which have editing functionality and some needs simple UI with fast working. Very less of people wants bunch of features because extra features make an app heavy which make problem and work slow on devise. Also, extra features which are there only to show that the app is capable to that thing also, are useless. Most of the user don't wants extra useless feature in any app.

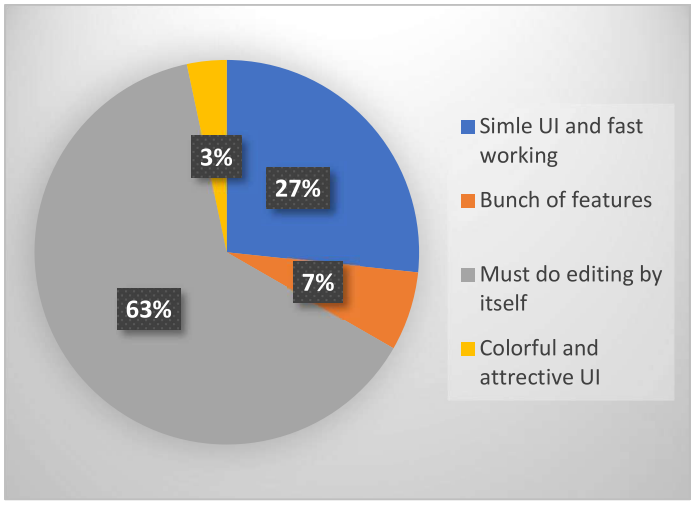


Fig. 1

Technology used –

There are basically two types of app. First one is web apps and second one is mobile apps. Both are used by different kind of users. Some use web apps because you don't need to install them. Just go to any search engine find the related web app you need and do the work. While mobile app is easy to use. You must download and install an app once. After that you can use them directly you don't need any internet connection also. Fig. 2 is the survey conducted make the result that what people use the most and it clearly shows that people now prefer mobile apps over webapps.

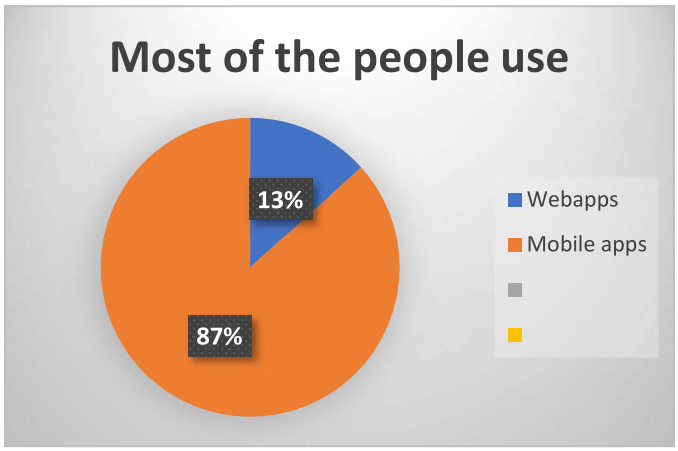


Fig. 2

OS used –

There are mainly two OS, which are mostly people use. Android and IOS. The market share of android in 2014 is approx. 76.6 [5]. Even in present time the market share of android is more than IOS and other OS. Fig. 3 is showing how android OS captures the 3/4th of the market. The data is clearly showing that if we make an android app, it will have more reach because android have 3 times higher users then its nearest competitor which have 24% market share.

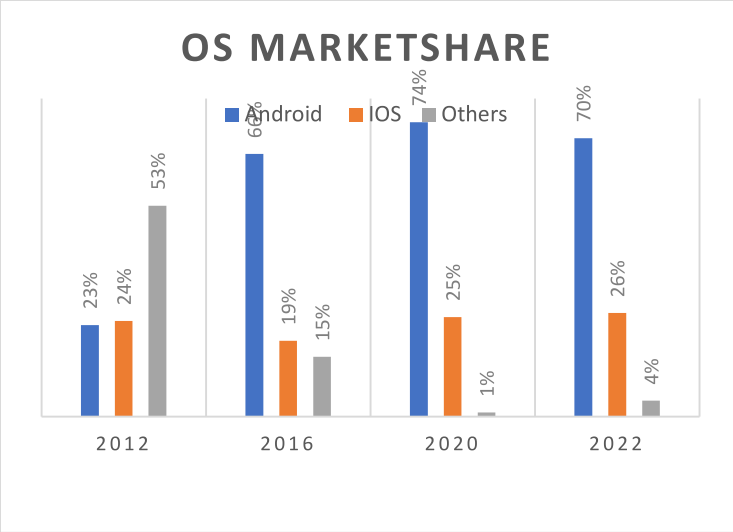


Fig. 3 [6]

Functionality –

When you open the app, it will give you all the options on home screen. You will choose what you want to do because all the options are on home screen. Let's take an example. If you choose the option Image to PDF, then it will further move to the next screen. On the next screen you must select the image. You can select image by taking it or you can choose the existing image. After image selection it will go to the next screen. Where you can make a pdf of the file which you have chooses or you can do editing in it. Then choose the file name and click okay to make the pdf. Fig. 4 showing the working of the app.

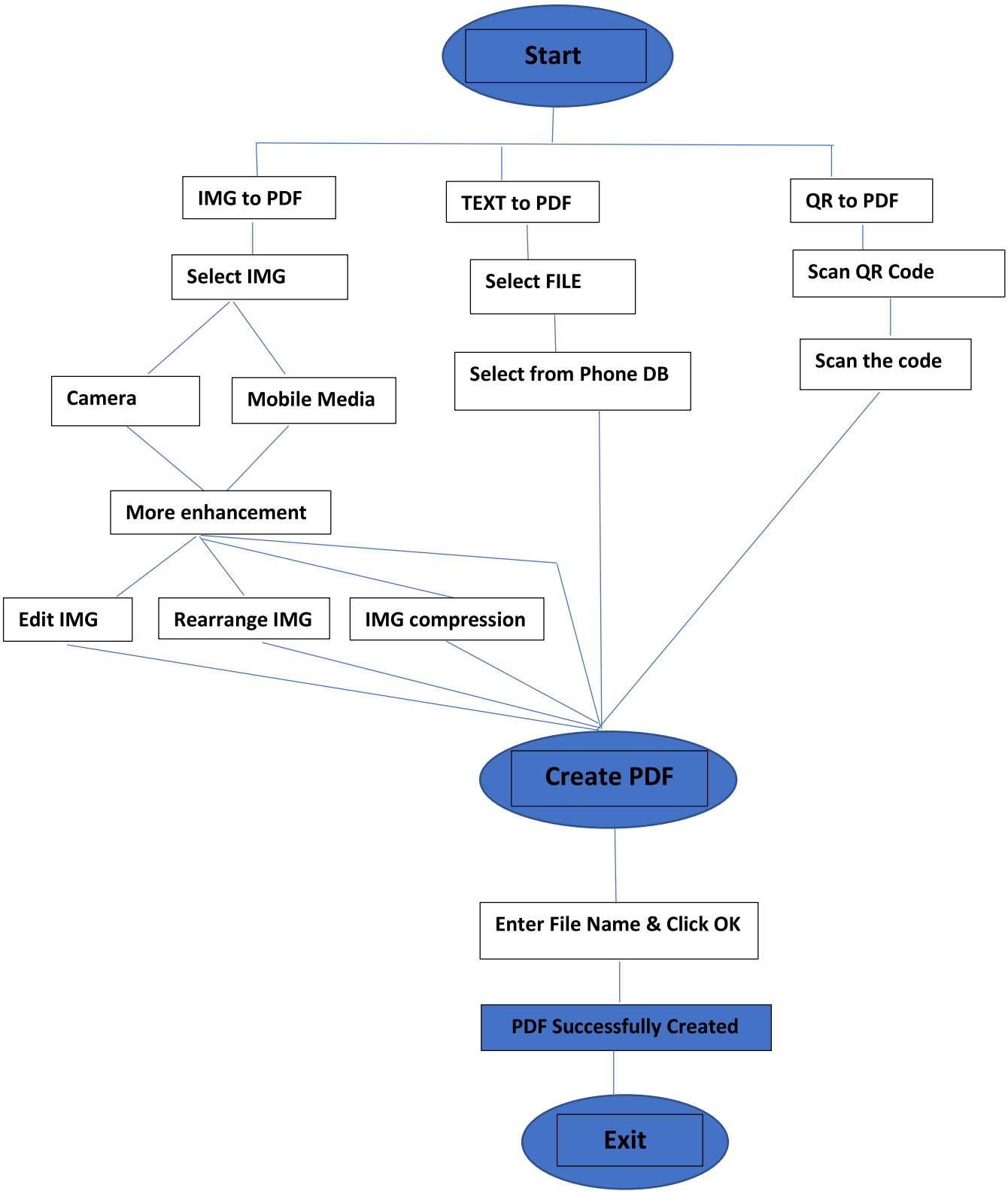

Start
IMG to PDF
TEXT to PDF
QR to PDF
Select IMG
Select FILE
Scan QR Code
Camera
Mobile Media
Select from Phone DB
Scan the code
More enhancement
Edit IMG
Rearrange IMG
IMG compression
Create PDF
Enter File Name & Click OK
PDF Successfully Created
Exit

Fig. 4

Results and discussion

Model –

Waterfall model is very useful. The best feature of this model is you work in it phase wise. Firstly, gather requirement then go to the next step of system design and implementation. As a result of this model, I can say it helps me a lot because it defines the way how you can make your app easily without any problem.

Technology –

I used mobile app technology to make this research and I found it easy and convenient. Large number of people make pdf on their mobile phone through mobile application. When I make research on that I found that most of the people use mobile application to make pdf because it is simple, you don't need any active internet connection. Less Hessel in file search. Easily take an image with mobile app.

OS –

I found android an easy-to-use OS. It has a bunch of functions. We can work very faster with android studio because of its functionalities. It has intelligent code editor, which provide a feature of code completion [7]. This function is very helpful. You just write some letters of code, and it will give you all the suggestions related to that.

Functionality –

When I did my testing in this, I found it very effective. I also gave it to my colleagues, and they give me very good feedback. They found it helpful and approx. 90% of people found the built-in feature of editing the file, very effective and useful. They found the UI very simple and fast responsive. All the people who used it, no one of them needs my help to use the app. All of them find it very simple to use. Fig. 5 is the survey of 10 people who are my mates.

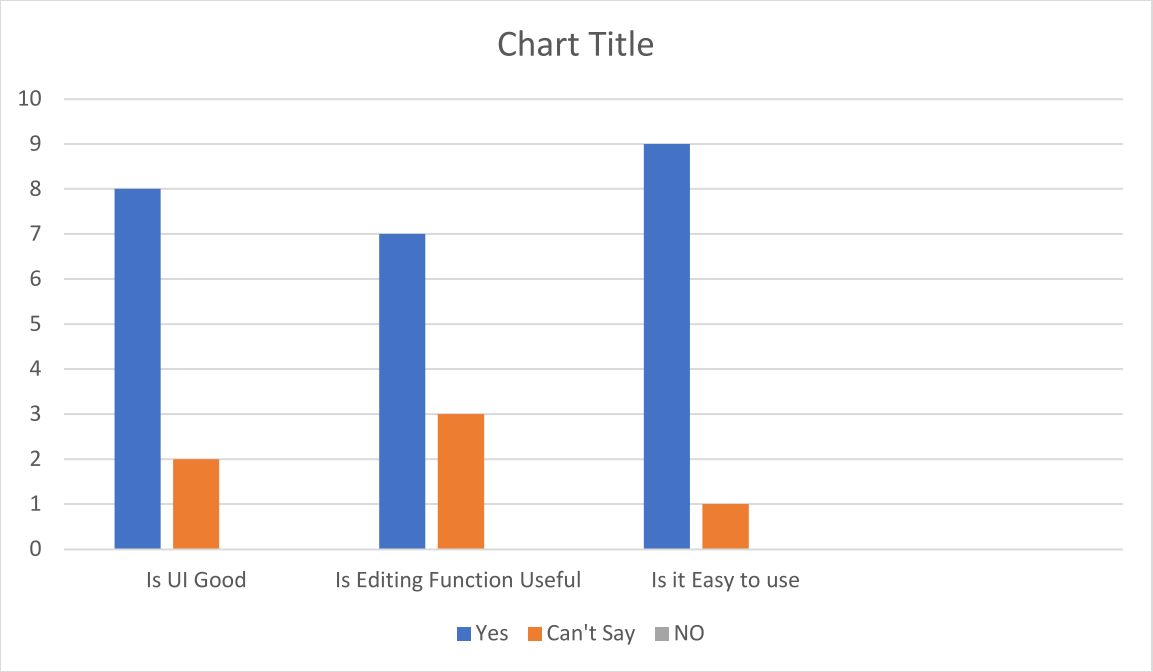


Fig. 5

Conclusion

The usage of PDF files is continuously increasing. All the files and images moving to the device from a physical file. As a result, the demand of PDF Converter is also increasing. People want PDF converter app to make their documents in portable form. You can make any file into PDF file, but mostly people used it to make PDF file of specific type of documents like – project file, research file etc. As the demand of android OS is the most, it become beneficial to make pdf converter app on android platform. We can also add new research to it as time passes because the technology is continuously growing, and you can add something new to it.

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