



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING KANCHEEPURAM

Subject - Human Computer Interaction

**REPORT
ON
WPS OFFICE**

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Product - WPS Office

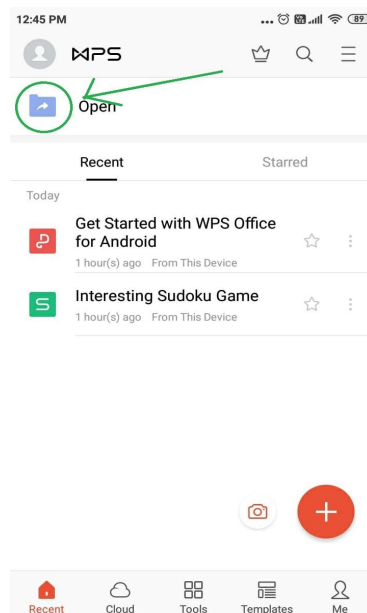
About

WPS stands for Writer, Presentation and Spreadsheets.

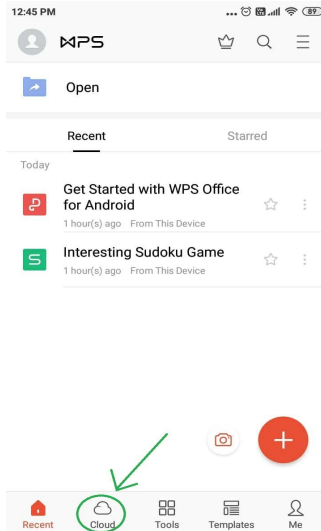
WPS Office is a free and cross platform office suite that includes a text processor, spreadsheet, and presentation creator, among other useful tools that are completely compatible with other well-known packages from the same category like Microsoft Office, OpenOffice, and LibreOffice.

Some of the limitations of WPS office and its solution are :-

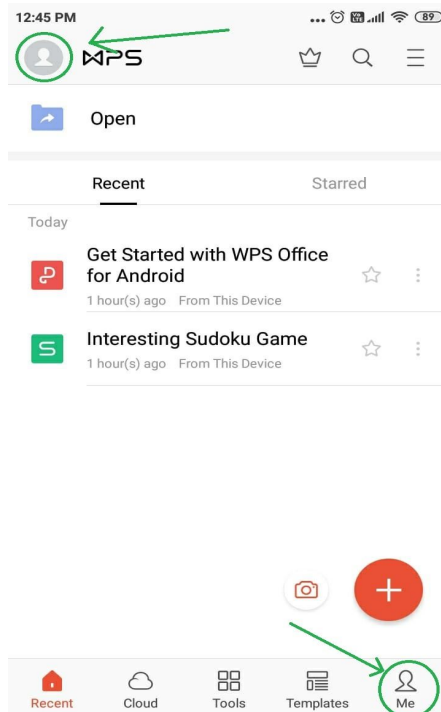
- Open file is present inside Recent icon but it should be available on screen because it is violating closure property i.e. the main objective of people to use this application is to open a file or create a new file. It was also violating discoverability feature as it is difficult for a novice user to find open file option



- Cloud icon is not used recently by a user so it should be placed on the right side of footer, while templates and tools will be used more so it should be placed on the left side of footer because users spend more than twice as much time looking at the left side of the page as they did the right. Hence it was violating the principle of Horizontal attention leans left

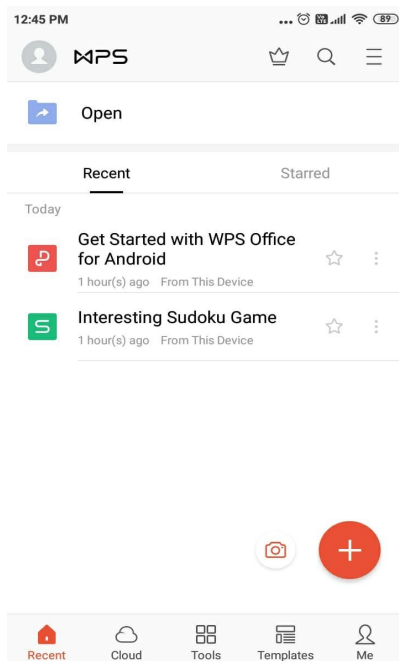


- Me icon in the footer is redundant because it is already available in the top left corner of the application. So it has been removed from footer as it was violating aesthetic and minimalist design principles.

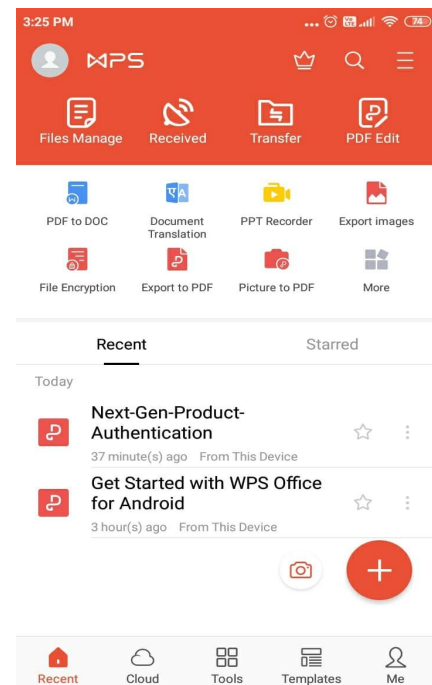


- Upgrade to premium option is not used most frequently. It is only used once in a month or once in a year by expert users to get subscriptions and it is not used by novice user. So it should be removed from the top of the screen as it is also available in user icon on the top left corner of the application
- File for get started with wps office for android is available inside the recent icon but it can be deleted. So if a novice user deletes it by mistake then he may have to locate help and support option which cannot be even searched using the search icon on the top right. This deleted file can't be undone. So it is violating the principle of permitting easy reversal of actions. So I have made an icon for help and support on the top bar. Placement has been done keeping the principle strive for consistency because users usually see help & support option on the top bar indicated with question marks.
- I have also highlighted recent button properly to offer clarity of current tab
- After opening a file, the UI of the application changes and brings irrelevant things on the front screen which are located in the tools icon in the footer. This needs to change.

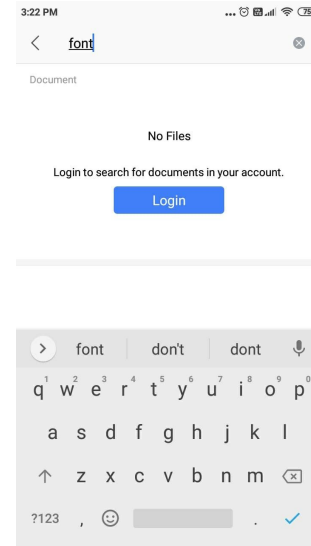
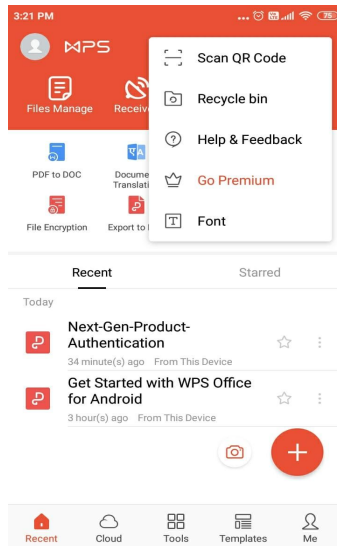
Before opening file



After opening file



- This application is not modular. we can't search for options such as font, go premium using the search bar. It only searches for the documents. So this feature can be added to the newly designed application.



Design Principles taken care while making this application

Mental Model

Users will expect this application similar to they have used such as MS-office. So this product satisfies the mental model of users. Users also expect to have a working interface similar to what they have already used which is also provided by this application.

Ease of Use and Usability

It is very easy to create a new file just by clicking on the plus icon on the front page of the application. It has also become easy to open a file after doing some changes to the application.

It also shows the recently opened files in the recent icon which can be used for easy access to the last recent files we had opened.

Affordance

Affordance is a property or feature of an object which presents a prompt on what can be done with this object. Every icon in the application signifies well with its working. For

example plus button inside the orange circle indicates it is used to create a new file, the camera logo indicates, it is used to capture photos of documents.

Permit easy reversal of actions

We know that users need to reverse their action when they make some mistake or when they try to explore the features. This feature is provided by this application also. In addition to that if by mistake we have closed our application then it saves the data in the cache memory so that when users open this application again, then they may resume their work.

Offer informative feedback

When we try to create a new document then it prompts with multiple options whether we want to create a word document or spreadsheet or presentation. This application also assigns date and time as well as the device from which a document has been created in the recent icon on the footer section. Thus it reminds the user when he has opened the recent application and in which device(if the user logs in multiple devices with the same account).

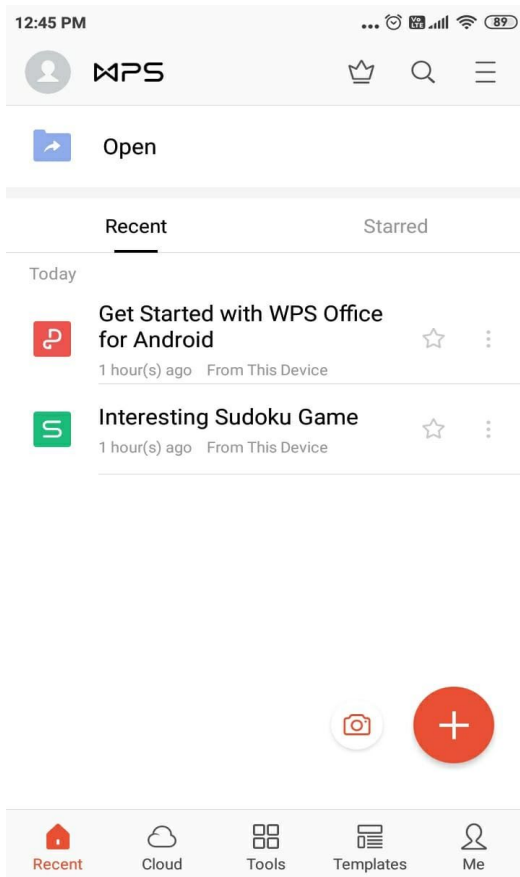
Strive for consistency

It keeps all the buttons and icons at the proper place such as users have a mental model of search bar on the top, so this application also keeps search bar on the top of the application. My profile is generally on the top left in most of the applications, so it also keeps my profile on the top left side of the application.

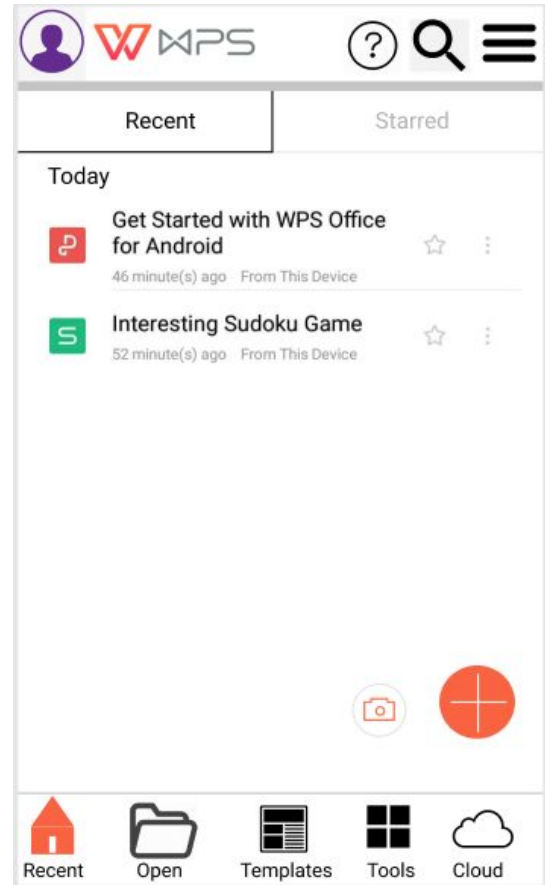
Flexibility

This application can be used for opening and creating many types of documents such as word documents, spreadsheets, presentations etc. It also offers converting a document to pdf and vice versa. So this application has flexibility of doing many things.

Old Design



New Design



The latter(New Design) has been built using figma which is a prototyping tool available online as well as offline

Psychology of persuasion

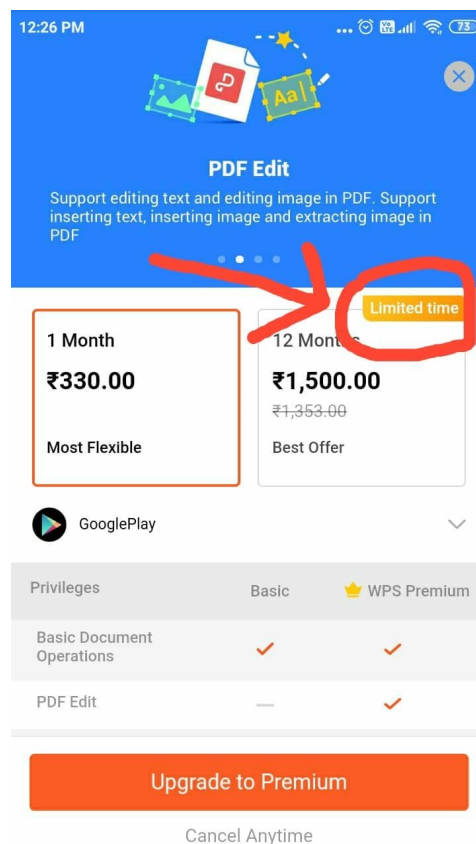
Reciprocity - This app will give a trial version of premium wps office for 30 days for new signup either using google, facebook, twitter etc.

Authority - This app has 100 millions plus downloads in google play store. It has been reviewed by 2 Millions plus users, which is more than Microsoft office. It has been rated 4.6 stars which is 0.3 stars more than Microsoft office.

Liking - This company has been built by Kingsoft which collaborated by Intel and IBM, which are one of the leading company in their field

Social proof - It has many followers on social media as it is famous as microsoft office. It is also more famous on google play store than the microsoft office because of higher rating as well as more number of reviews have been given to this office suite.

Scarcity - sometimes, this application also provide limited time offer for upgrading the application to premium



We can see in the figure that the given offer is for limited time. It has also more value than 1 month subscription.

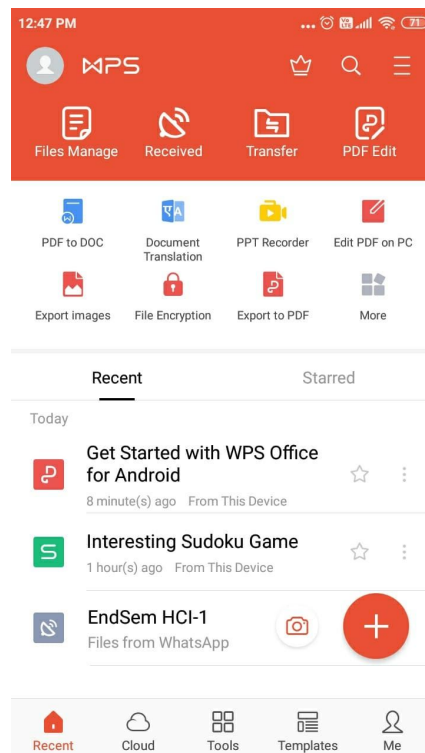
Fear of Missing Out - This application also suits well with the FOMO principle i.e. fear of missing out as given above offer are for limited time\

Psychology of color

This application has a mix colour of red and orange and white.



Red color shows that the application is exciting to use and users will love it after using it while orange color shows that this application is friendly as well as affordable. White color shows its simplicity and light application.



Most of the options/ symbols are coloured in a colour similar to the application logo.

Isolation effect - This application also provides an isolation effect. We can see this in the bottom bar. As the colors are being given to a single icon hence, it has an isolation effect.

Psychology of shapes

This application logo is square in shape which signifies that it is efficient to use, it is more stable than any other application of similar type. It also tells about the strength of this application. Its logo looks like in 3 dimensional space because of non-overlapping of its character.

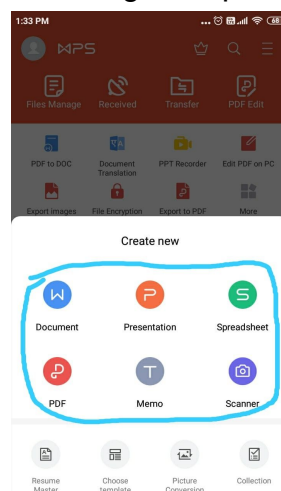
Negative/White space - This application does not have sufficient white spacing because of too many features loaded on the front page.

Pareto's law of usability - This application is also not following the pareto's law of usability principle because, The front page is crowded with too many features and we do not need to use it approximately 90% of the time.

Sense of clarity and sense of subtlety - This application does provides sense of clarity to the main text and sense of subtlety to the secondary text which are not more useful for the user such as date and time of last modified are coloured dull i.e. some variant of gray color while the main text is written in black color.

Color Theory

Digital Design - This application has used a variety of colors to identify different types of documents which is basically the mental model of a person. PDFs are in red , word documents are in blue, Stylesheets are in green, powerpoints are in orange etc.

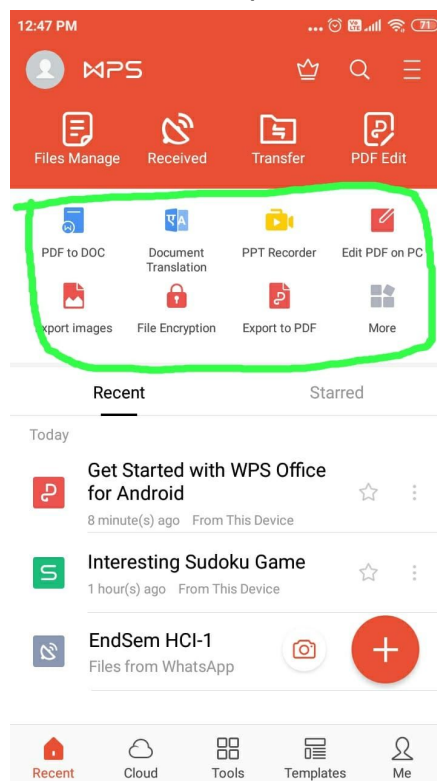


Texture - This application logo is purely solid, so it does not have any kind of texture in it. Neither is there any kind of texture inside the application

Principles of Design

Unity - This application creates a harmony between all elements in the page. Every icons are beautifully arranged in a linear fashion

Gesalt - This application is not following this principle because although some of the application shown on the top have similar shapes but has not been grouped together

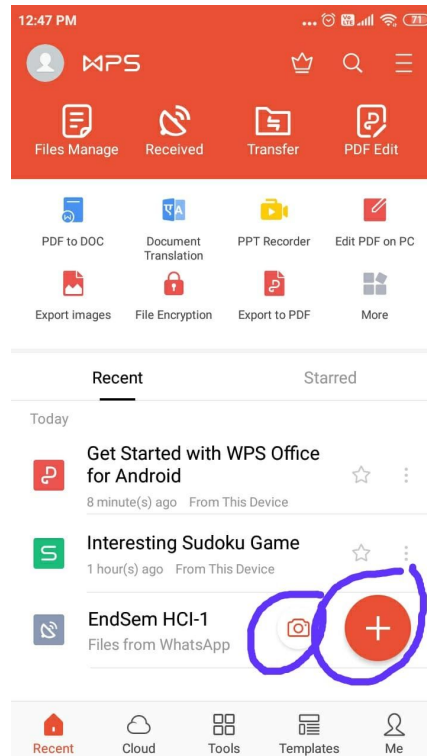


Hierarchy - This application has hierarchy because most important elements are larger in size. For example - create new document has largest size as it is the most frequently and most widely used feature. After this we go with the recent application opened which is also more prior than other menus as it has larger text than any other text.

Balance - We are providing balance to this application by distributing the above features evenly in the left and right side of the screen. If we divide the screen in two parts vertically, its one half will look similar to another half.

Contrast - We are focusing on the contrast also. It has been added to create new document to keep it different from the feature just beside that icon. As we know that red color stand out. So this create new icon also stand out.

Scale - we can see that the camera button has less size than the create new button. So create new button has been scaled two times the camera button.



Dominance - This application is showing dominance with the colors only but not with the size. Because we can see the bottom icons, all are of the same size but the color is different to make it stand out in the crowd. I.e. to highlight the current tab.

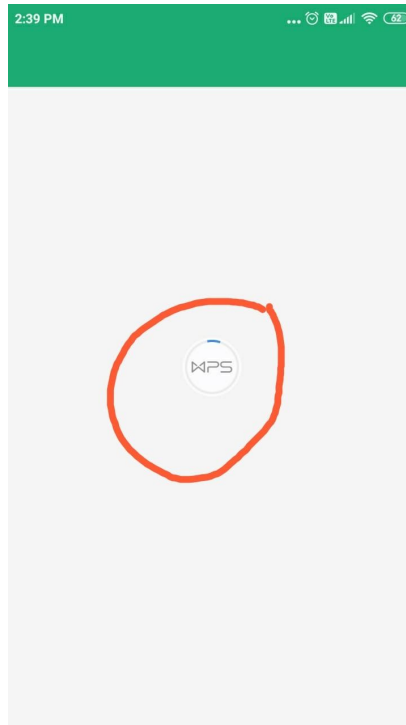
Recency - It has recency because this application stores the last opened file in the front screen which helps to open the recent file very easily.

Short Term Memory - This application also helps to get rid of short term memory, first because it stores the recent files and second because when we search for any document it goes inside the history of the searched document so it will make us easy to remember things. Also it will be shown as we click on search button. Something like google search engine which keeps the recent history of searched page.

Fitt's law - For this application to follow fitt's law, its bottom icons size can be boosted so that it is easily clickable even on the mobile with smaller screen size.

Hick and hyman law - This law has not been implemented because its choices have not been. As more number of icons are there, it will take a large amount of time to make a decision for which icons need to be chosen.

Loading Bar - This application has a loading bar of type throbber. But it can be made as a ribbed loading bar because a loading bar of type throbber does not give any feedback about the completeness of the task. So by the ribbed loading bar we can get the feedback also which can make it better. It's throbber type loading bar looks like the throbber type of windows 10. Also the way windows throbber loading bar moves, it also moves in a similar way.



Captcha - This application does not provide any kind of captcha because its closure is not towards the security but opening of document or creating of document. Captcha will only delay the login process in this application

Navigation Design

- This application does not provide a variety of navigation options. It has only one type of navigation option and it cannot be changed.
- This application gives feedback of where we are by showing the name of the opened document or by highlighting any icon if we are currently residing in it.
- It has though prominent title for every page. For each icon, it is clearly written there what it is doing.

- It gives feedback about where we are going just by highlighting that icon if we went inside that.
- It more or less follow web convention as important menu should be either on top or bottom. And organisation logo appears on the top left corner. Search is also placed in its true position i.e. on the top right corner.

Universal Design Principle

Equitable use - This application is designed in such a way that for all kinds of users it will appear the same, whether a person is novice or expert, it doesn't matter for this application.

But if you compare with its premium version then, obviously the user who is using the application for free will get less amount of feature than one with premium version.

Flexibility in use the design - There is no such thing that users will be able to keep things in his own way.

Simple and intuitive use - This will work the same for those users who are pre-knowledgeable and who are not familiar with it. Whether a user know some kind of language or not, it does not matter.

Perceptible information - Design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Tolerance for error - it minimizes the hazards and prevent un intended action by giving some kind of feedback. Even when we close the application by mistake, still it will be saved automatically and we can resume our work from there.

Low physical effort - we do not need to go any far for getting any task done. Any task can be completed within two or three new windows.

Size and space for approach and use - It icon size is little small which can be changed so that we do not have any icon with smaller size. But there is almost no extra space as it is taken over by some useless icons.