Desktop User Interface

Assignment 1

Belo, Lea Monica	7638471
Jin, Jinny	7545783
Phromsorn, Nuchjarin	7157779

Summary

Design and implement a novel desktop user interface to launch applications for any of these PC operating systems: Windows 7, Windows 8, Linux, or OSX.

Your User Interface Design must be constrained by at least 10 guidelines outlined in the user interface design guidelines for your operating system of choice.

Your application must be able to launch at least 3 real application (ex: Calculator, Notepad, Cmd).

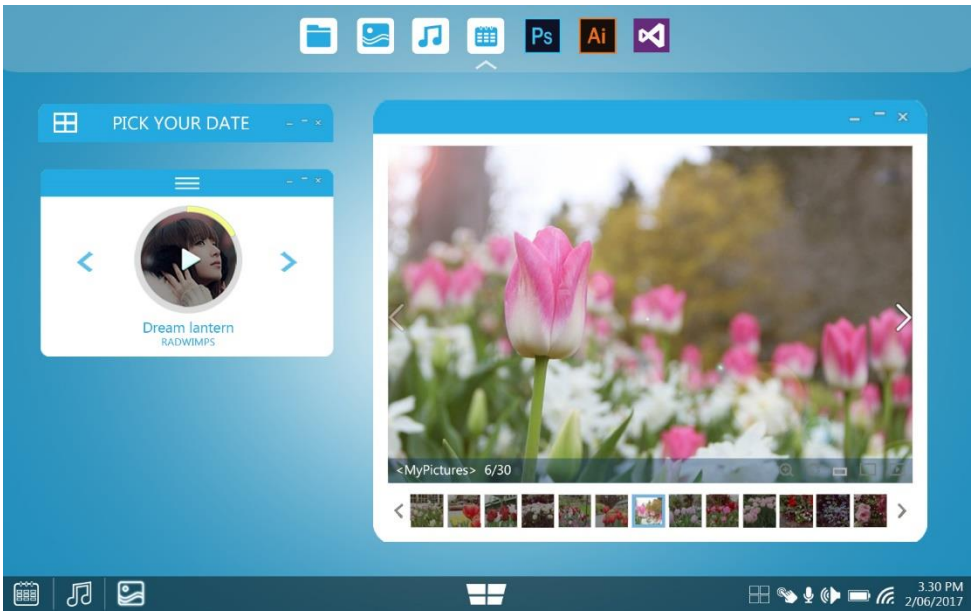
You must submit a document identifying how you addressed each of the 8 principles of user interface design and how you implemented 10 constraints as outlined in the guidelines for your operating system of choice. Supporting evidence for each of these must be present in your document.

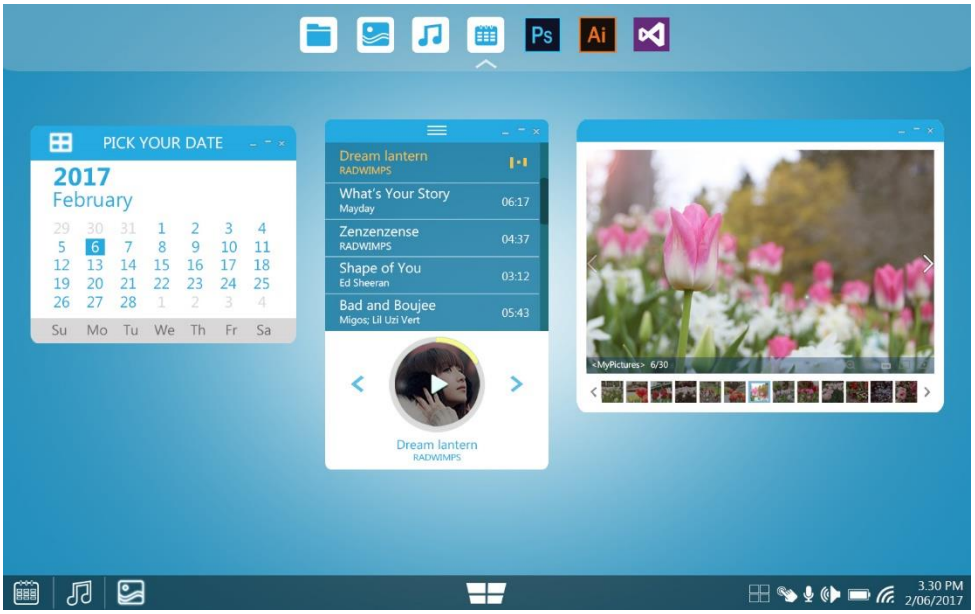
Marking Scheme:	
Addressed each of the 8 principles of user interface design	/ 8
Constrained user interface design using UI design guidelines	/ 10
Constrained user interface design using UI design guidelines	/ 10
User Interface is visually pleasing	/ 10
Implementation works	/ 2

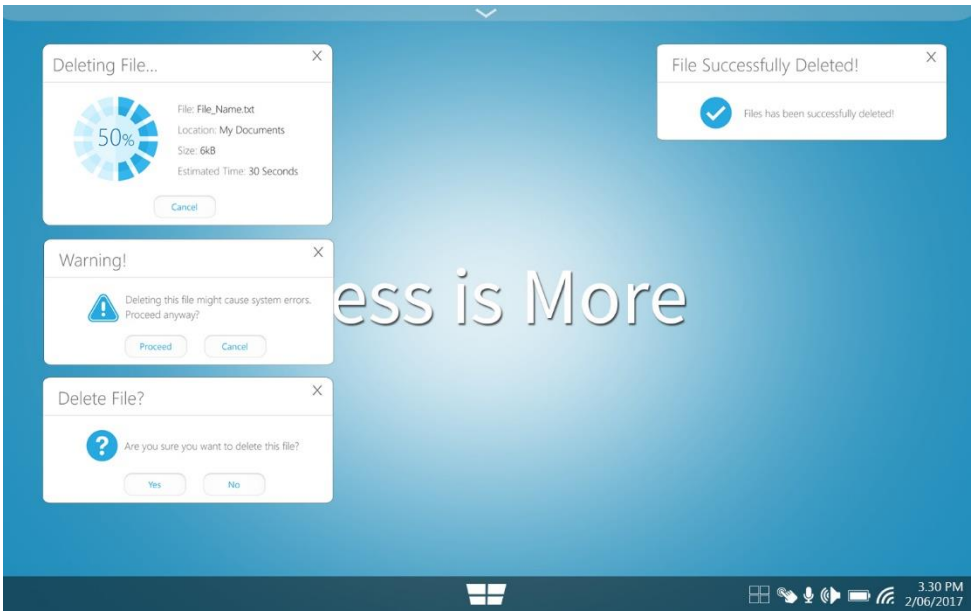
Contents

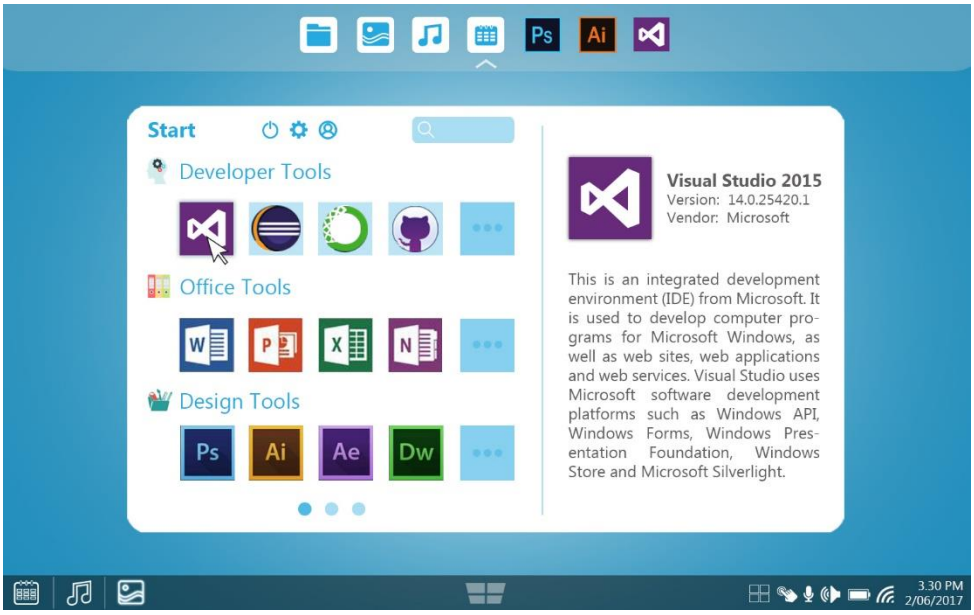
Desktop Design

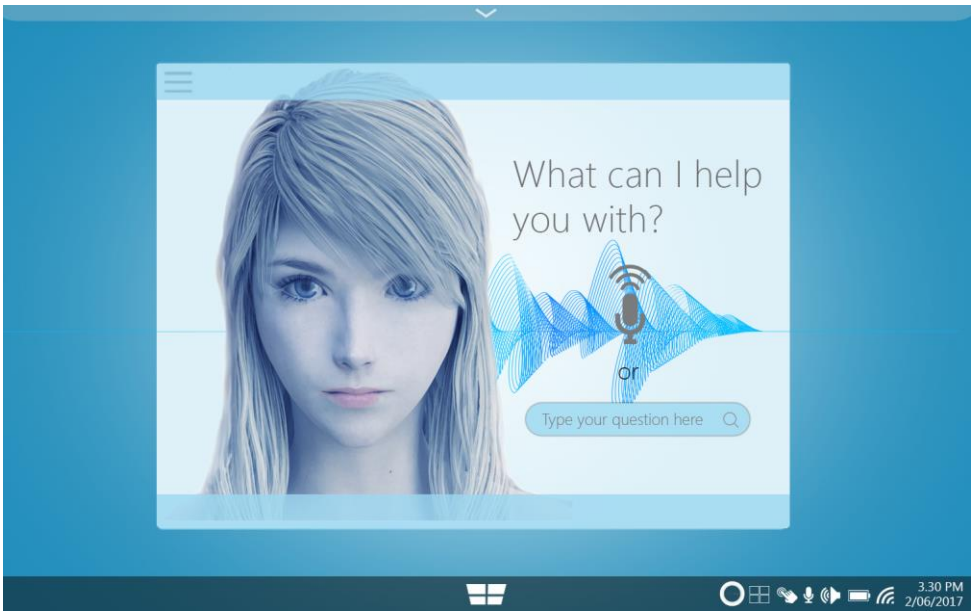
Below are the sample screen designs. The redesigned User Interface is an improved version of the Windows Operating System.

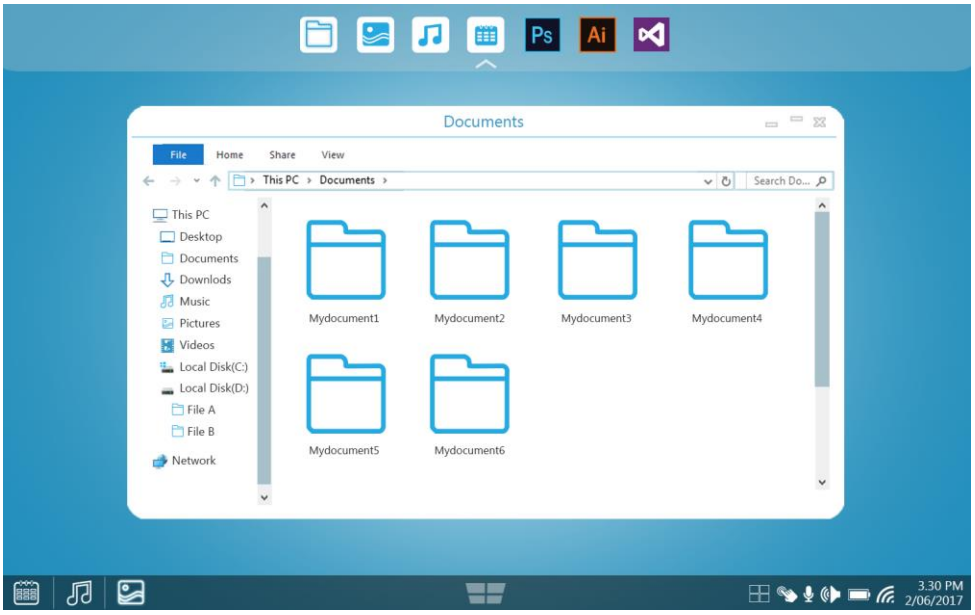




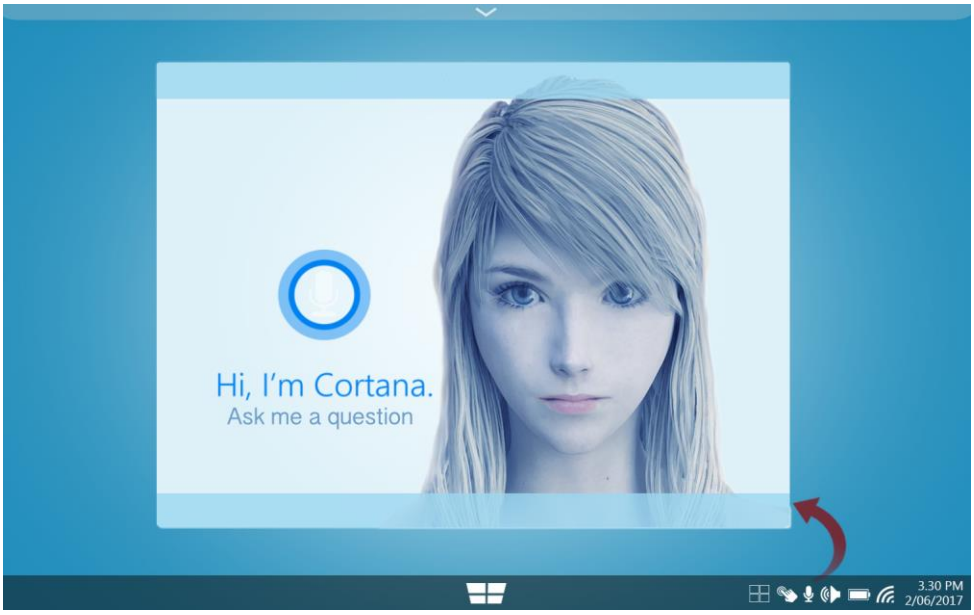

Deleting File...
50%
File: File_Name.txt
Location: My Documents
Size: 6kB
Estimated Time: 30 Seconds
Cancel
File Successfully Deleted!
Files has been successfully deleted!
Warning!
Deleting this file might cause system errors. Proceed anyway?
Proceed
Cancel
ess is More
Delete File?
Are you sure you want to delete this file?
Yes
No
3.30 PM
2/06/2017


Start
Developer Tools
Office Tools
Design Tools
Visual Studio 2015
Version: 14.0.25420.1
Vendor: Microsoft
This is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites, web applications and web services. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight.
3.30 PM
2/06/2017


What can I help you with?
or
Type your question here
3.30 PM
2/06/2017


Documents
File
Home
Share
View
This PC
Documents
Search Do...
This PC
Desktop
Documents
Downlods
Music
Pictures
Videos
Local Disk(C:)
Local Disk(D:)
File A
File B
Network
Mydocument1
Mydocument2
Mydocument3
Mydocument4
Mydocument5
Mydocument6
3.30 PM
2/06/2017


FAQs & Help...
Type your question here
Windows
How do I find my Windows product key?
My Windows 7 product key won't verify. What's the problem?
I bought Windows 7 through a website. After talking to the merchant, I was told I had a "system builder" product key. Why doesn't that work?
I purchased my copy of Windows through a university. Can I download it here?
Yes, but you'll need your product key. Go to the Academic Products down load page and select the version of Windows to begin.
3.30 PM
2/06/2017


Hi, I'm Cortana.
Ask me a question
3.30 PM
2/06/2017

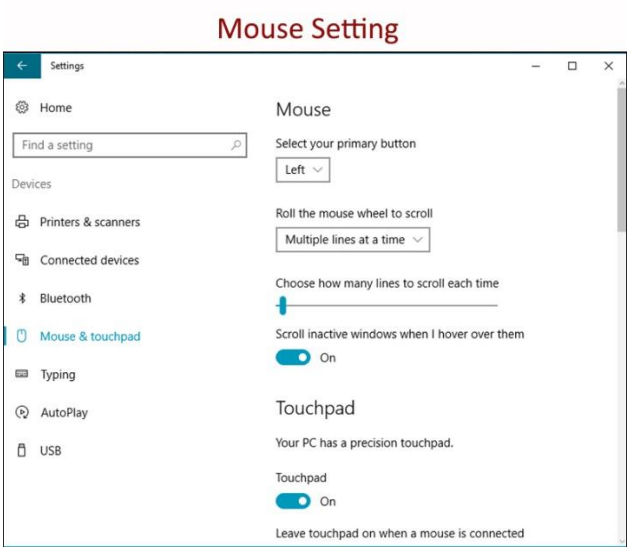
Principles

The following principles are demonstrated or shown in the evidences attached below.

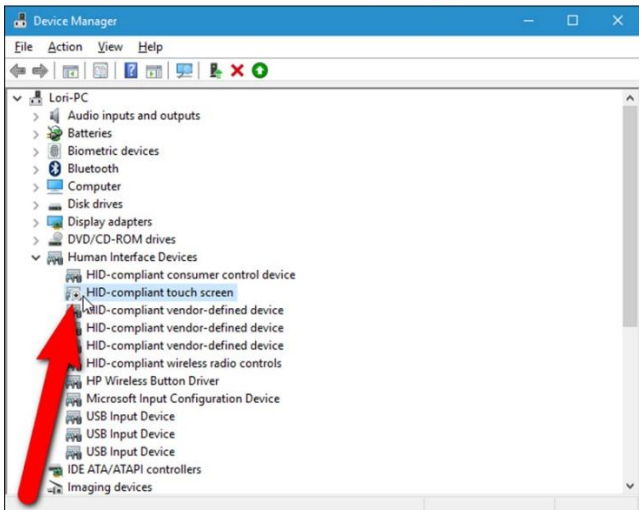
1. Know Your Users

Given today's current technology, the team opt to support multiple ways users can interact with the system. Since computers & laptops are built already with a touchpad, the system has the usual mouse input option. Second is the touch screen input, since there are also computers today that has this feature. Last is the "Cortana" user assistant. It stands as the same function as how we use Siri of 'Ok Google' functions. This helps improve the user experience since it acts as an assistant giving convenience to users in terms of searching for files, programs that could open a file or even send an email (like what we do with Siri). In summary, Mouse input, Touch screen, and Cortana Digital Assistant are the three different ways for Users to open the Apps.

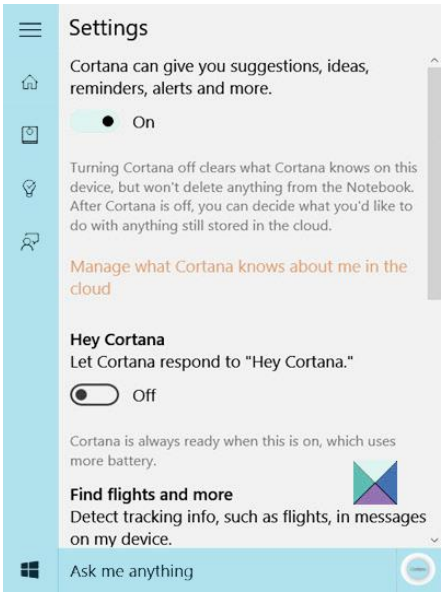
Supporting Evidence:



Touch Screen Setting



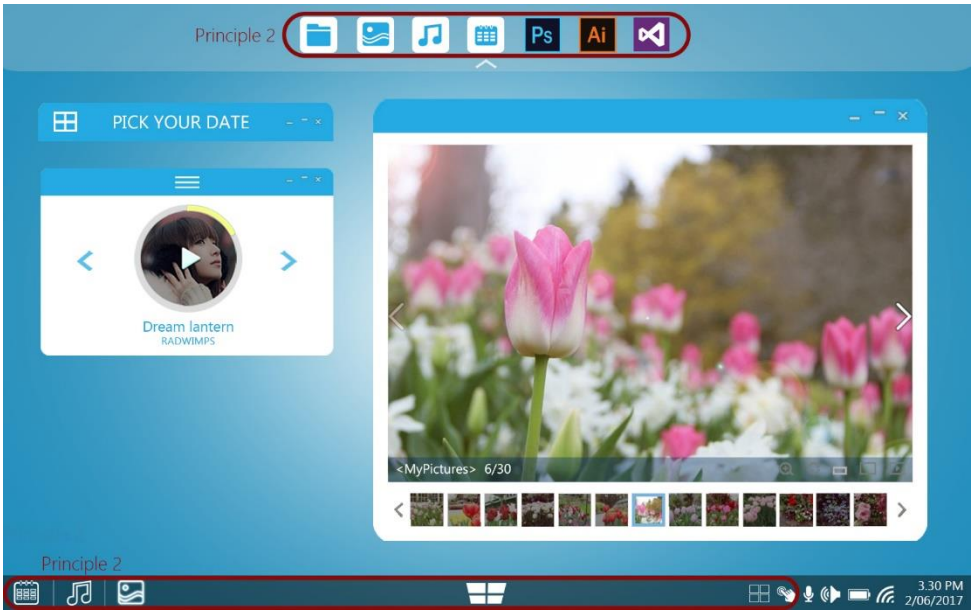
Cortana Voice Assistant Setting

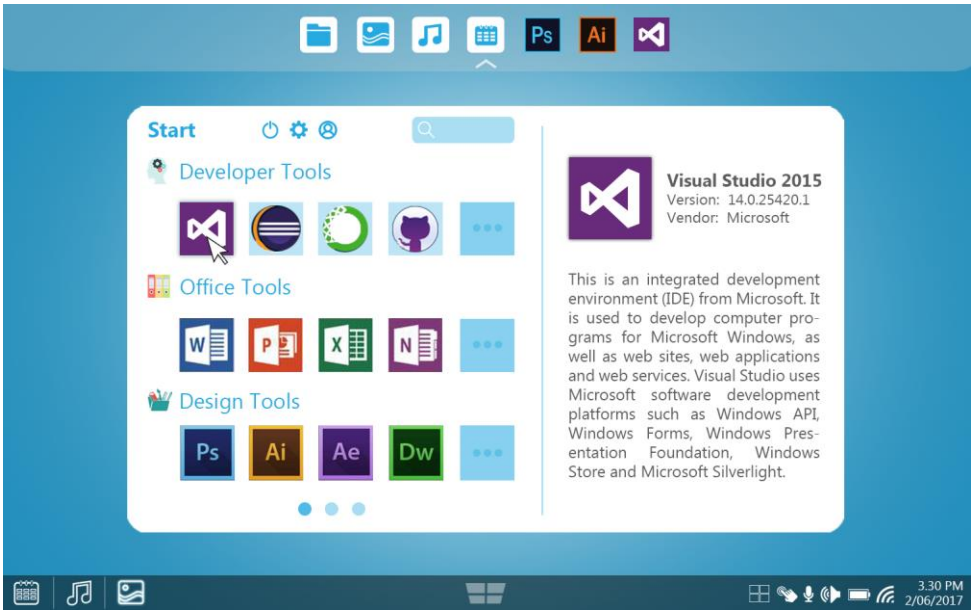


2. Make Affordances

The design below shows the user the different applications he/she could use. The design used the conventional windows logo but setting it in the middle. A drawer is placed on the top portion that holds applications that a user can customize. Applications displayed in the desktop, like the music app and date app is designed in an accordion manner that could be retracted. The photo app displays the pictures in the My Pictures folder below and emphasizes on the user which photo he/she is now viewing (by darkening other unselected photos).

Supporting Evidence:

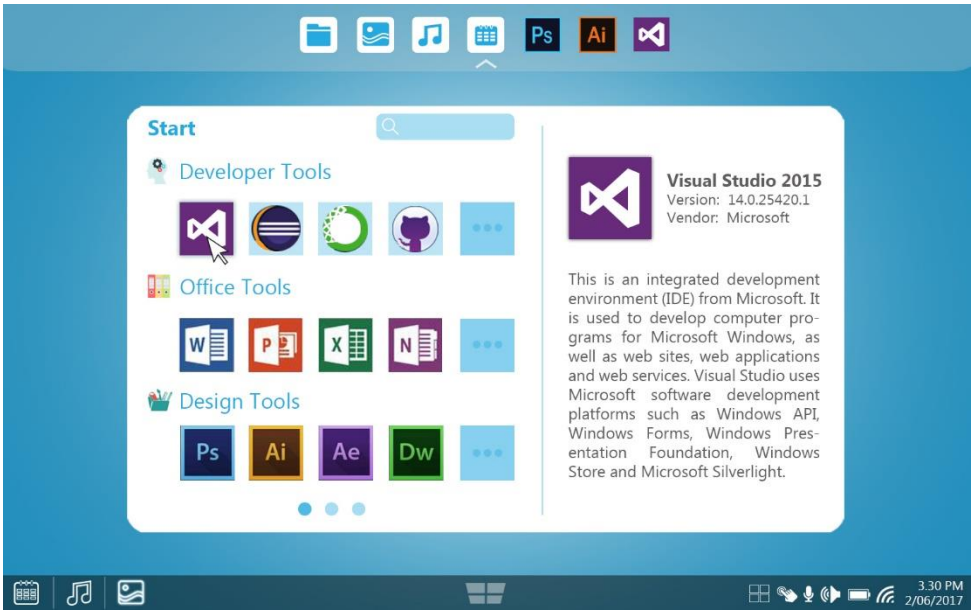




3. Map Functionality

In terms of functionality, after clicking start button, the user can see the applications group per its purpose or use. When selected, the details of the application are displayed on the side. The user can opt to customize each grouping and arrange it per his/her will. A search functionality is also created to allow users to search for a specific application/file.

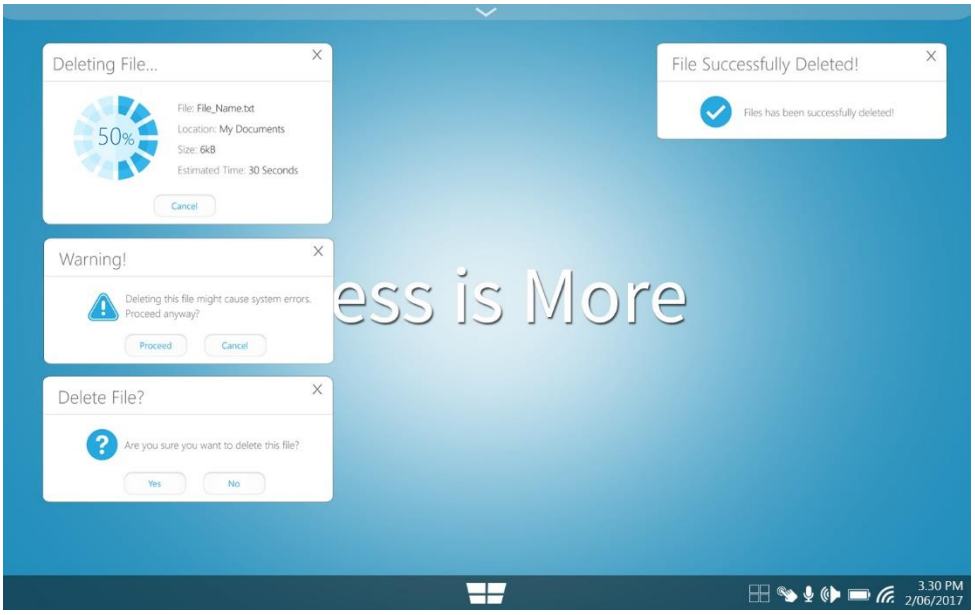
Supporting Evidence:

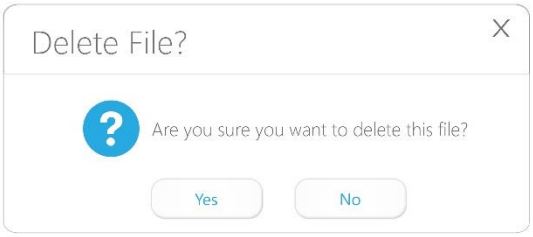


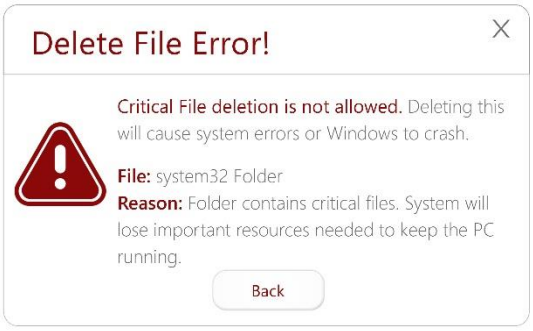
4. Feedback

The feedback principle gives the user the messages/warning depending on his/her actions. If a file that is important in the system is to be deleted by a user, a warning message will show to ask for user confirmation before deleting. This warning message is only applicable to files that even if deleted, the system could still function but there is a chance of a minimal error. The same goes for normal file deletion, but a user will just be asked if he/she wants to delete the file. A progress bar is presented on the side to show the percentage of task completion.

Supporting Evidence:







Deleting critical files is also prevented by the system.

5. Use Metaphors

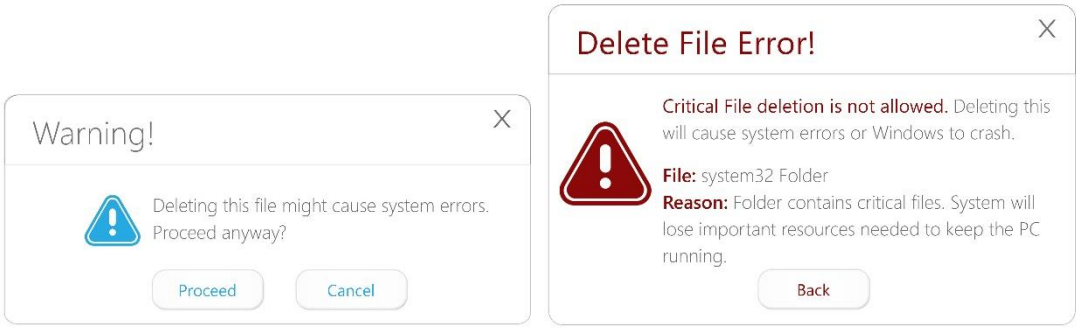
Using graphical symbols such as the battery, WiFi, and speaker icons which the users are familiar of.

Supporting Evidence:

6. Forcing Functions

Users are prevented from deleting critical files and are prompted about actions that would could result to errors or unwanted changes in the system. System files are also hidden unless set by user to show hidden files in the folder option. Actions such installation require user admin approval before proceeding.

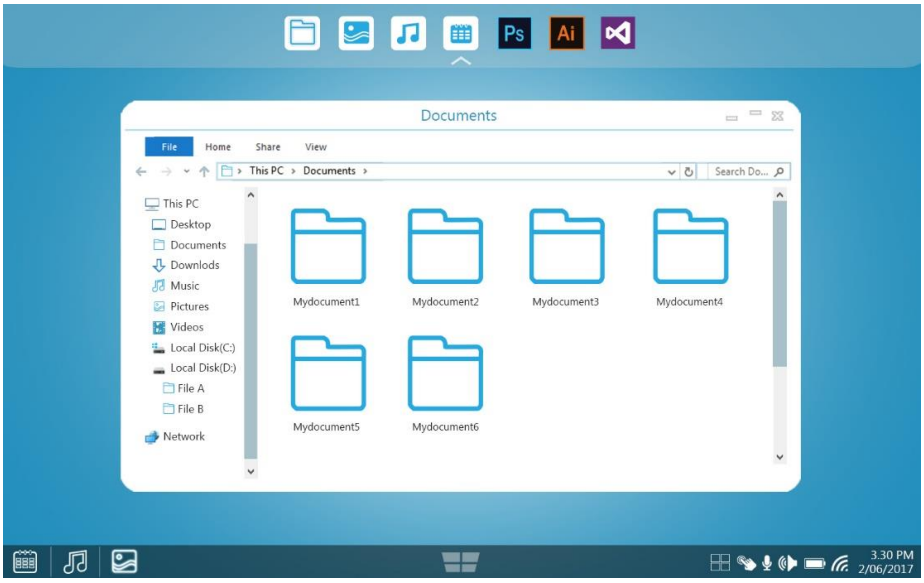
Supporting Evidence:



7. Automatic Learning

The file explorer structure is shown in this principle. User can easily distinguish or move about in the file explorer since it follows a tree structure.

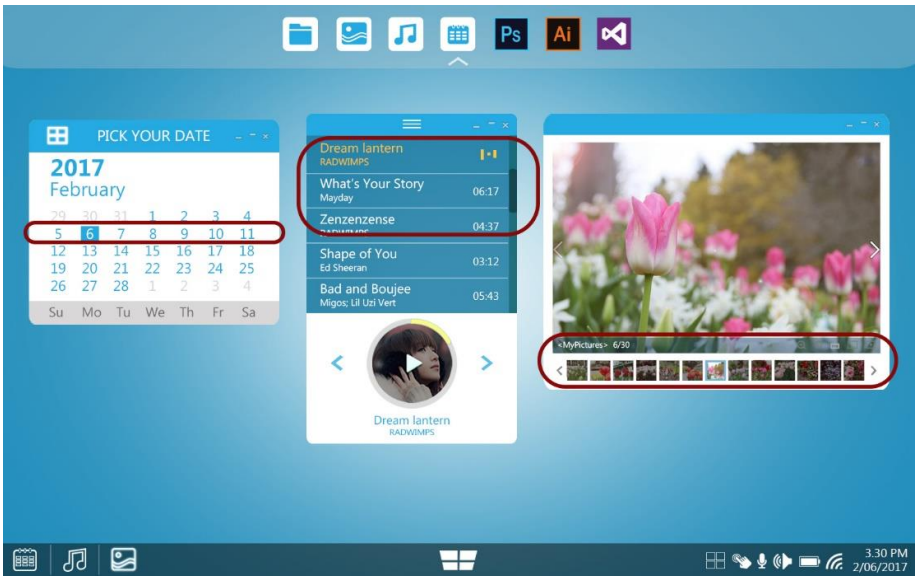
Supporting Evidence:



8. Context + Detail

This principle is demonstrated in the picture below. User is aware on where he/she currently is. The date is highlighted, the music selected has a different color and the picture shown or currently selected is not darkened.

Supporting Evidence:

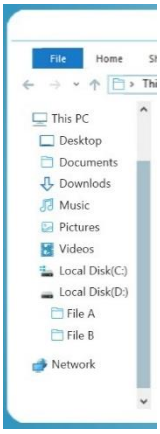


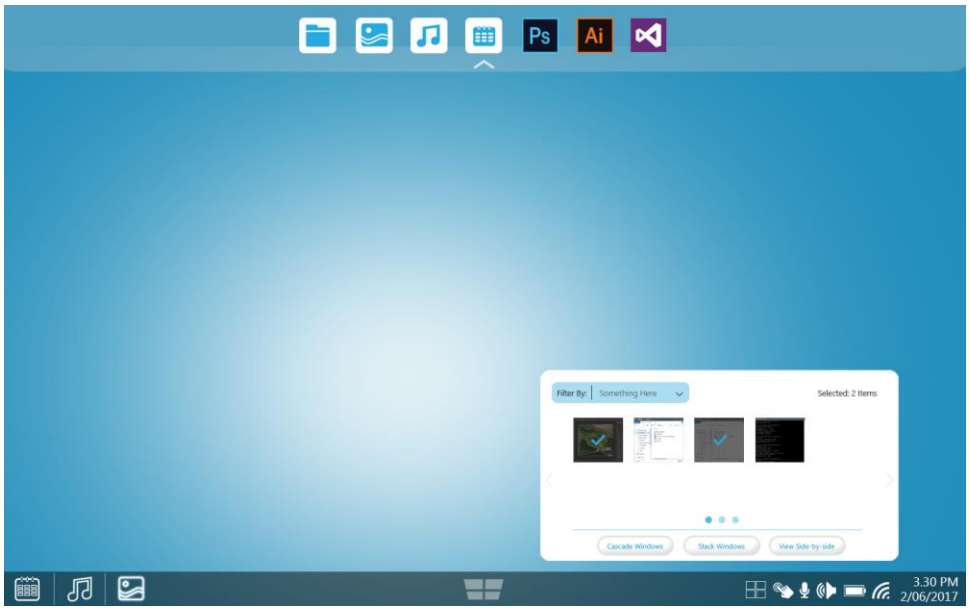
Guidelines

1. Access functionality between multiple windows

Users can change from one directory to another in the tree structure file explorer. Users can also select which windows to stack, cascade or arrange side-by-side in the screen.

Supporting Evidence of it being implemented:

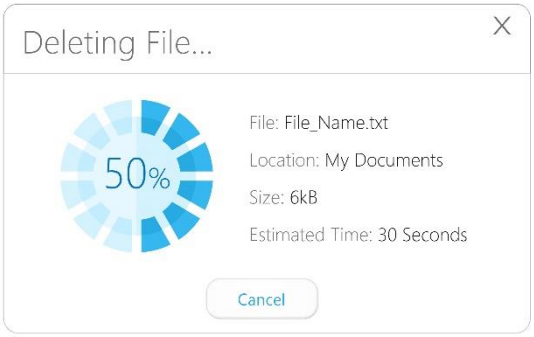




2. Progress Bars

The progress bar is shown in the prompt message. Alongside the file details are the directory where to document is currently located, file size and the percentage completed.

Supporting Evidence of it being implemented:



3. Use of mouse over effects to show that element is actionable

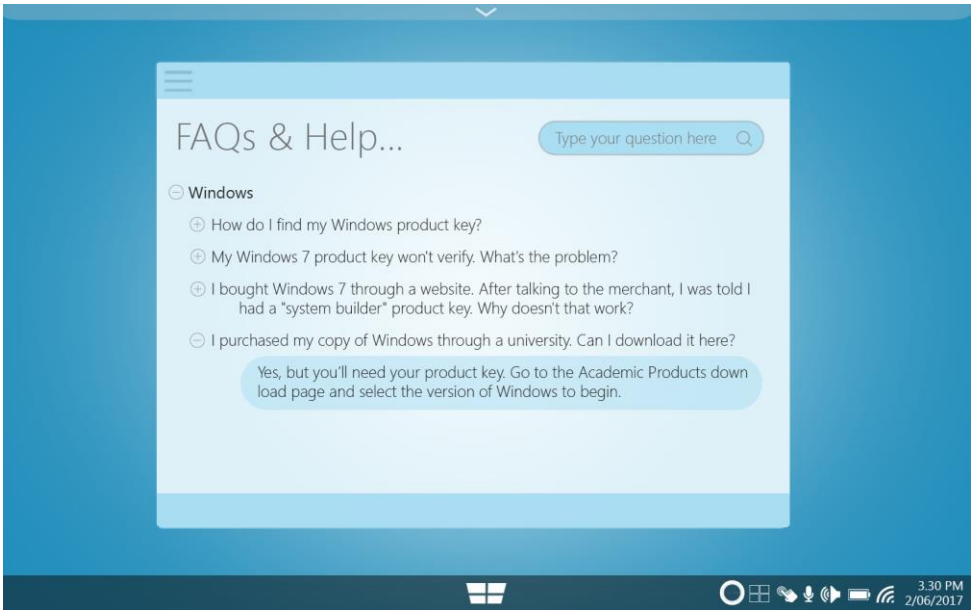
The image below shows how the icon behaves on mouse over & on select.

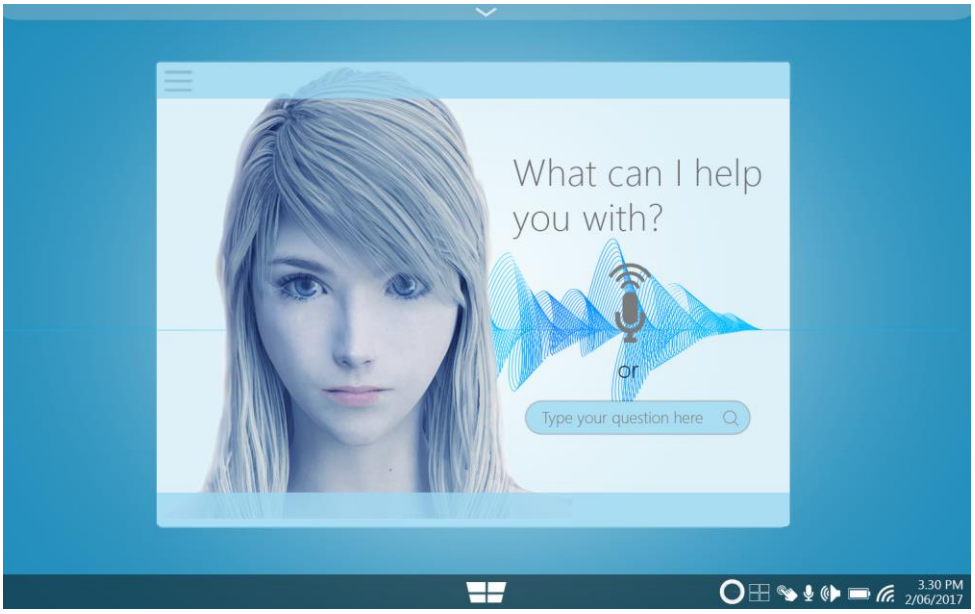
Supporting Evidence of it being implemented:

4. Use text to provide Explanation

The system has the function of F1 or Help & FAQs Functions. At the same time, user can opt to use Cortana to ask for help either by voice command or typing a question or keyword.

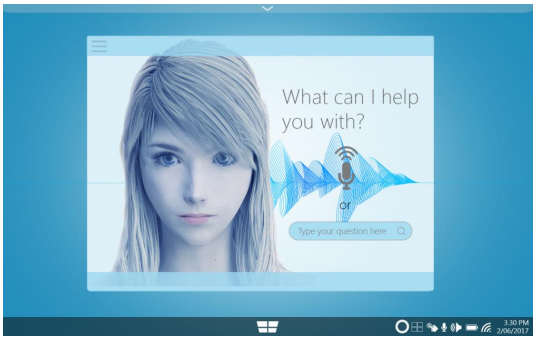
Supporting Evidence of it being implemented:

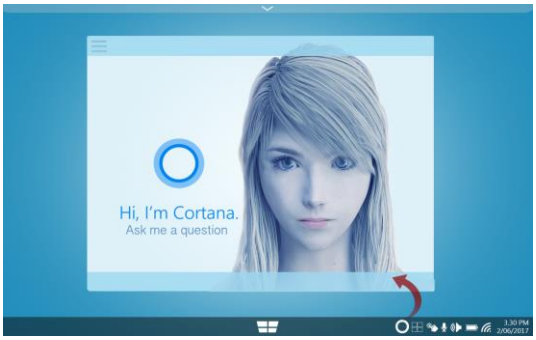


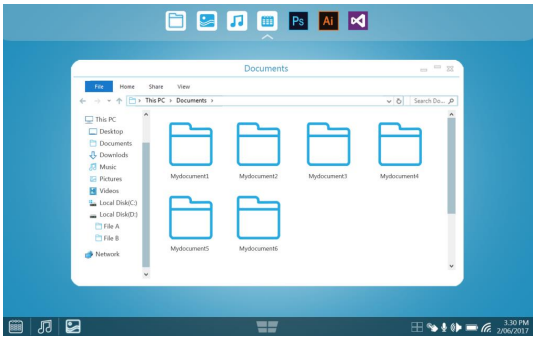


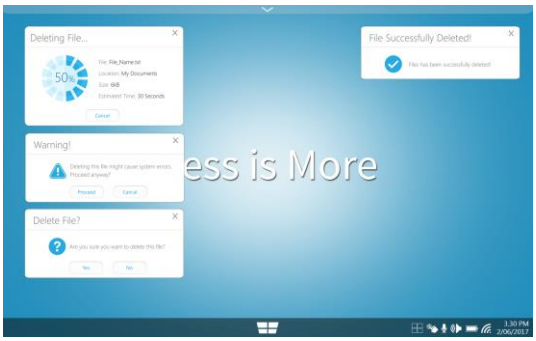
5. Pleasurable to see & responsive

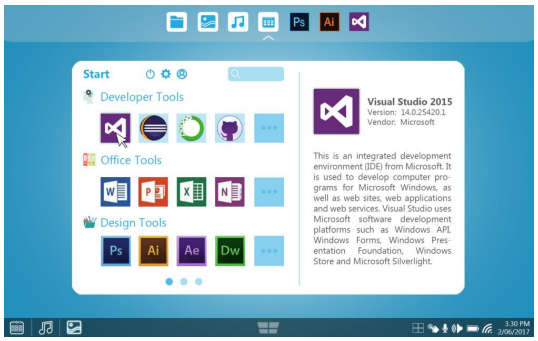
Supporting Evidence of it being implemented:





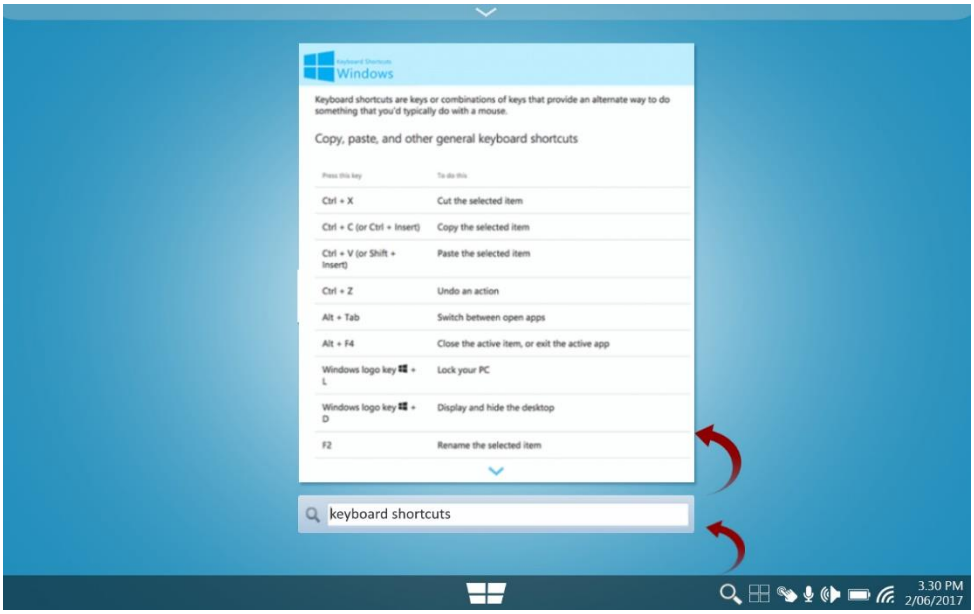






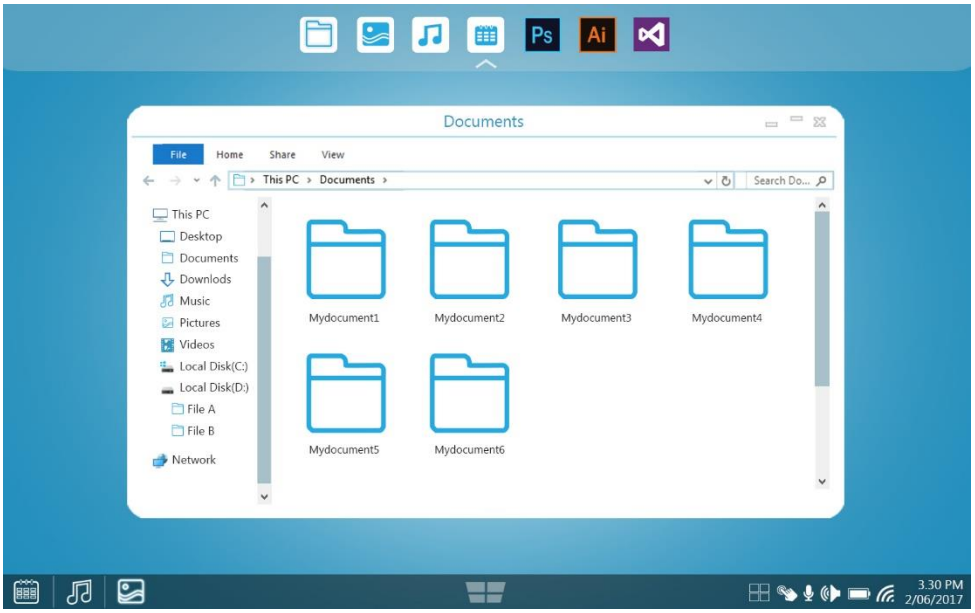
6. Keyboard Shortcuts

Supporting Evidence of it being implemented:



7. Use graphic elements to show hierarchy and relationships

Supporting Evidence of it being implemented:



8. Keep icons simple. Two icons should not share functionality.

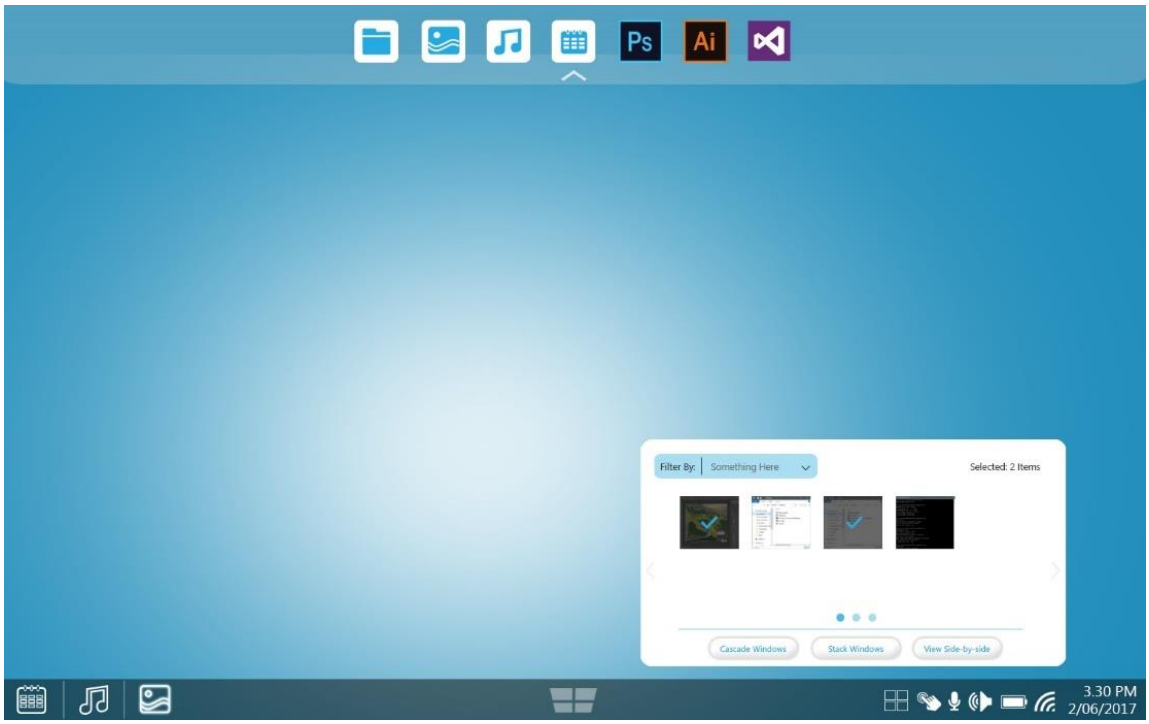
Different icons were used for different functions. For Cortana , a different symbol was used instead of the microphone. Thus, the usual icons were used.

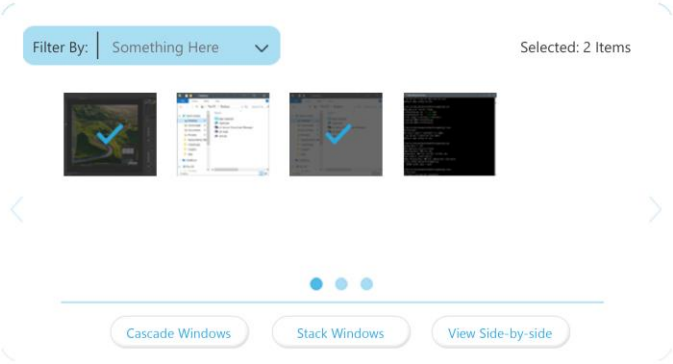
Supporting Evidence of it being implemented:

9. Selective window arrangement

Users can select which windows to display and arrange. This suits the multi-tasking of the user.

Supporting Evidence of it being implemented:





10. Cortana Voice Assistant

Cortana is the true personal digital assistant and helping user to get things done by using voice commands, there are many more features to play with it. For example, User can choose how Cortana character could look likes etc.

Supporting Evidence of it being implemented:

Keyboard shortcut: Windows key + C to Open Cortana in listening mode.