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Project	Doc No: PT- HFISN/HTISN-OOO	Ver No: 1.0

PROJECT

Name	
NRIC/FIN No:	

Module: Systems Programming

Code: IT5038FP Duration: 15 Hours

Scenario:

A hosting company providing file storage services for user to upload text and image files had contacted you to develop a program for automating maintenance tasks. The maintenance task includes separation of image and text into two folders, identify and highlight text files that could contain virus and delete the affected files.

You are to develop this project utilizing data operation, control structure and error handling to manage information to and from information store for this maintenance task automation.

Objective:

To test the abilities of students to:

- Create interface with appropriate configurations according to requirements.
- Select appropriate data to capture information according to requirements.
- Apply appropriate operators to perform specific mathematics or logical functions according to requirements.
- Apply appropriate control structure to control the flow of execution according to requirement.
- Create information store to facilitate task data storage according to requirement.
- Manipulate data flow between process and information store according to requirement.
- Develop appropriate execution handling to manage error according to requirement.
- Compile program for deployment and rollout.

Major Tools & Equipment:

- 1. Personal Computer
- 2. Windows 10 or latest
- 3. Microsoft Visual Studio IDE

Instructions:

- 1. You are to note down ALL the important points during the demonstration of this project by your lecturer
- 2. You will be provided with a template to help you to start with the initial developing of this project
- 3. Module lecturer has the right to change the instruction and requirements based on the situation

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Requirements:

- You are to create a static class name **MyAssistant**. The purpose of this class is to manage **ALL** the methods that are to be used in this project.
- 2 Create a **Dictionary** name **MIMETypesDictionary** to recognize the content of the input file.
- 3 Create an **Introduction Menu** to prompt for user input on the menu options as shown in Figure 1.

Introduction Menu

```
CAWINDOWS/system32/cmd.exe

$6000006 Please select an option. $600006

1.View all files in Image Folder

2.View all files in Text Folder

3.View ALL file

4.Perform sorting of files to image and text folders

5.Perform Check on abnormal content in Text file
```

Figure 1

4 Create an **Image Folder Display** to display **ALL** the files in the **image folder** as shown in Figure 2.

Image Folder Display

```
files in Image Folder
       L Tile
sorting of files to image and text folders
Check on abnormal content in Text file
                    Name and location of file
               C:\Users\lab\Desktop\project\images\1.png
                                                                                           image/png
              C:\Users\lab\Desktop\project\images\10.jpg
               C:\Users\lab\Desktop\project\images\2.png
                                                                                           image/png
               C:\Users\lab\Desktop\project\images\3.png
                                                                                           image/png
               C:\Users\lab\Desktop\project\images\4.png
               C:\Users\lab\Desktop\project\images\5.png
                                                                                           image/png
               C:\Users\lab\Desktop\project\images\6.jpg
                                                                                           image/jpeg
               C:\Users\lab\Desktop\project\images\7.jpg
               C:\Users\lab\Desktop\project\images\8.jpg
                                                                                           image/jpeg
               C:\Users\lab\Desktop\project\images\9.jpg
                                                                                           image/jpeg
pleted Scan!
```

Figure 2

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5 Create a **Text Folder Display** to display **ALL** the files in the **text folder** as shown in Figure 3.

Text Folder Display

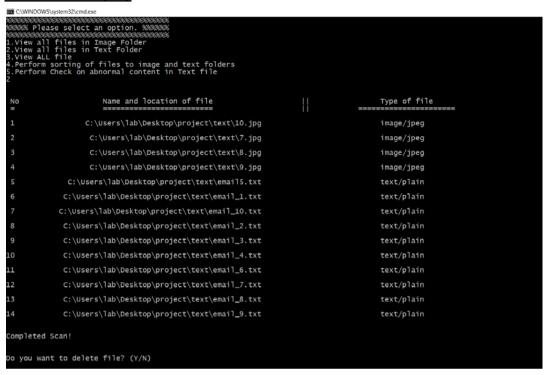


Figure 3

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6 Create a **ALL Files Display** to display **ALL** the file path and file type in the **image folder and text folder** as shown in Figure 4.

All Files Folder Display

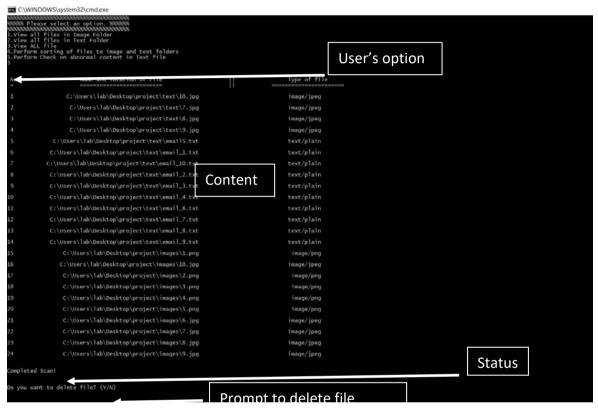


Figure 4

7 **Classify** ALL files according to their respective folder(image or text) as stated in Option 4 in Figure 1. List the total number of files in the image folder and the text folder.

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8 **Perform** a check on **abnormal content** and **display** them as shown in Figure 5.

Abnormal Content Display

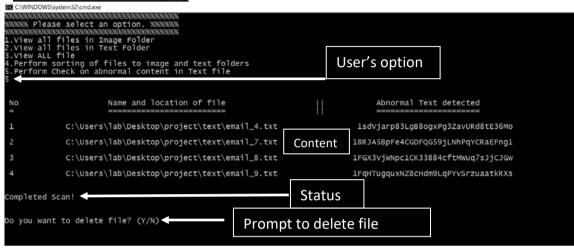


Figure 5

- 9 Record the file name, file size and abnormal text of all file with abnormal text into a log file.
- 10 Perform multiple deletion of files as shown in Figure 6.

Delete Files

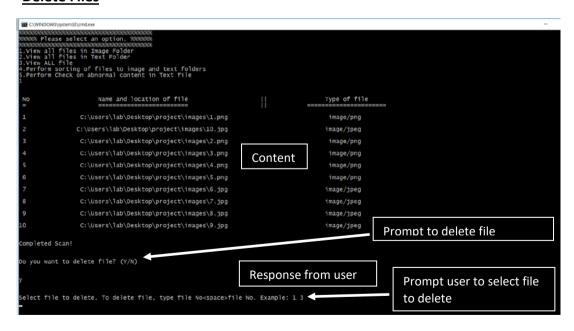


Figure 6

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After the user select to delete (Y) or not delete (N) file, the program MUST return to Introduction menu as shown in Figure 7.

```
C:\WINDOWS\system32\cmd.exe
                  C:\Users\lab\Desktop\project\images\1.png
                                                                                                 image/png
                 C:\Users\lab\Desktop\project\images\10.jpg
                                                                                                image/jpeg
                  C:\Users\lab\Desktop\project\images\2.png
                                                                                                 image/png
                  C:\Users\lab\Desktop\project\images\3.png
                                                                                                 image/png
                  C:\Users\lab\Desktop\project\images\4.png
                                                                                                 image/png
                  C:\Users\lab\Desktop\project\images\5.png
                                                                                                 image/png
                  C:\Users\lab\Desktop\project\images\6.jpg
                                                                                                image/ipeg
                  C:\Users\lab\Desktop\project\images\7.jpg
                                                                                                image/jpeg
                  C:\Users\lab\Desktop\project\images\8.jpg
                                                                                                image/jpeg
                  C:\Users\lab\Desktop\project\images\9.jpg
                                                                                                image/jpeg
ompleted Scan!
o you want to delete file? (Y/N)
 elect file to delete. To delete file, type file No<space>file No. Example: 1 3
    ou really want to delete? <Y/N>
  \Users\lab\Desktop\project\images\1.png deleted successfully.
  \Users\lab\Desktop\project\images\9.jpg deleted successfully.
    % Please select an option. %%%%%
          l files in Image Folder
| files in Text Folder
| files in Text Folder
| files to image and text folders
| Check on abnormal content in Text file
```

Figure 7

Provide appropriate exception handling code to take care of situation that are out of the context of the program for example, user enter alphabet instead of numbers for the menu option. Think of as many situation as possible that could cause error in the behavior of the program.

---END OF PROJECT---

deadline: 08 March 2023