

Introduction

The first assignment involved learning the basics of web-site building and hosting. We built a web-site using basic HTML, CSS and JavaScript and hosted it on IIT Delhi internal web server. We will be updating this web-site for all future assignments and projects. This web-site can be accessed by anyone over IIT Delhi WiFi network. The important steps involved in this exercise are explained in the following sections.

Required Software

Software	Purpose	Web Site
Visual Studio Code	For creating and editing HTML, CSS and JS documents	https://code.visualstudio.com/
WinSCP	For uploading the files from local machine to IIT Delhi server	https://winscp.net/eng/download.php
ImageMagick	For image resizing and compression	https://imagemagick.org/index.php
Kdenlive	For video editing	https://kdenlive.org/en/

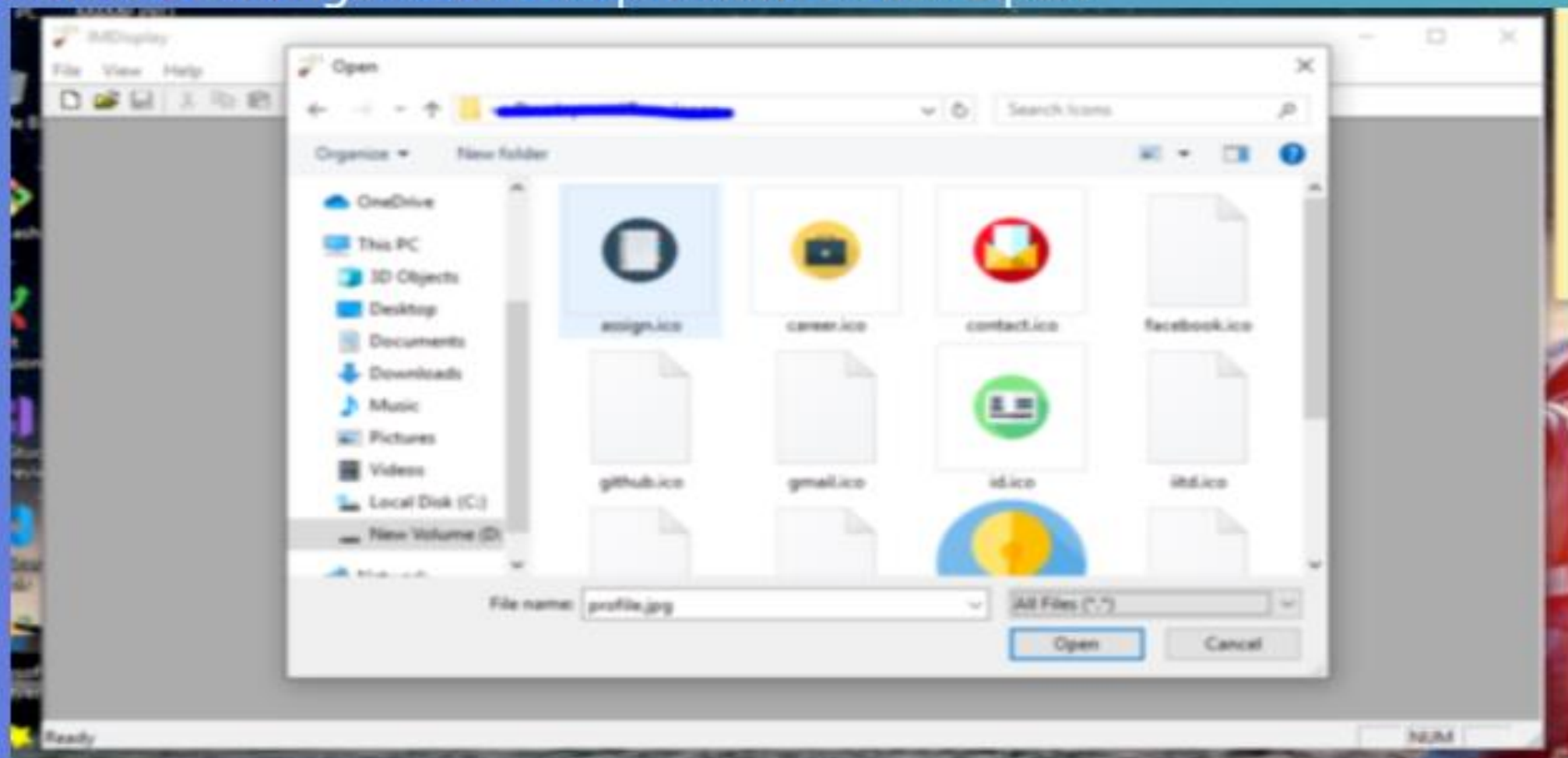
Creating Web Site on Local System

- Create the HTML web page using Visual Studio Code
- Add CSS file and edit it to provide proper styling to the HTML page
- Add JavaScript file and edit it to provide proper animations and transitions to the HTML page
- Add relevant images to the HTML web page
- Embed relevant videos from your YouTube channel
- Create proper folder structure to arrange different types of files
- Make sure to save all the changes in all the files
- Test the website on local machine by browsing the HTML file in any internet browser
- Validate all the functionalities on the local system

Compressing Images using ImageMagick

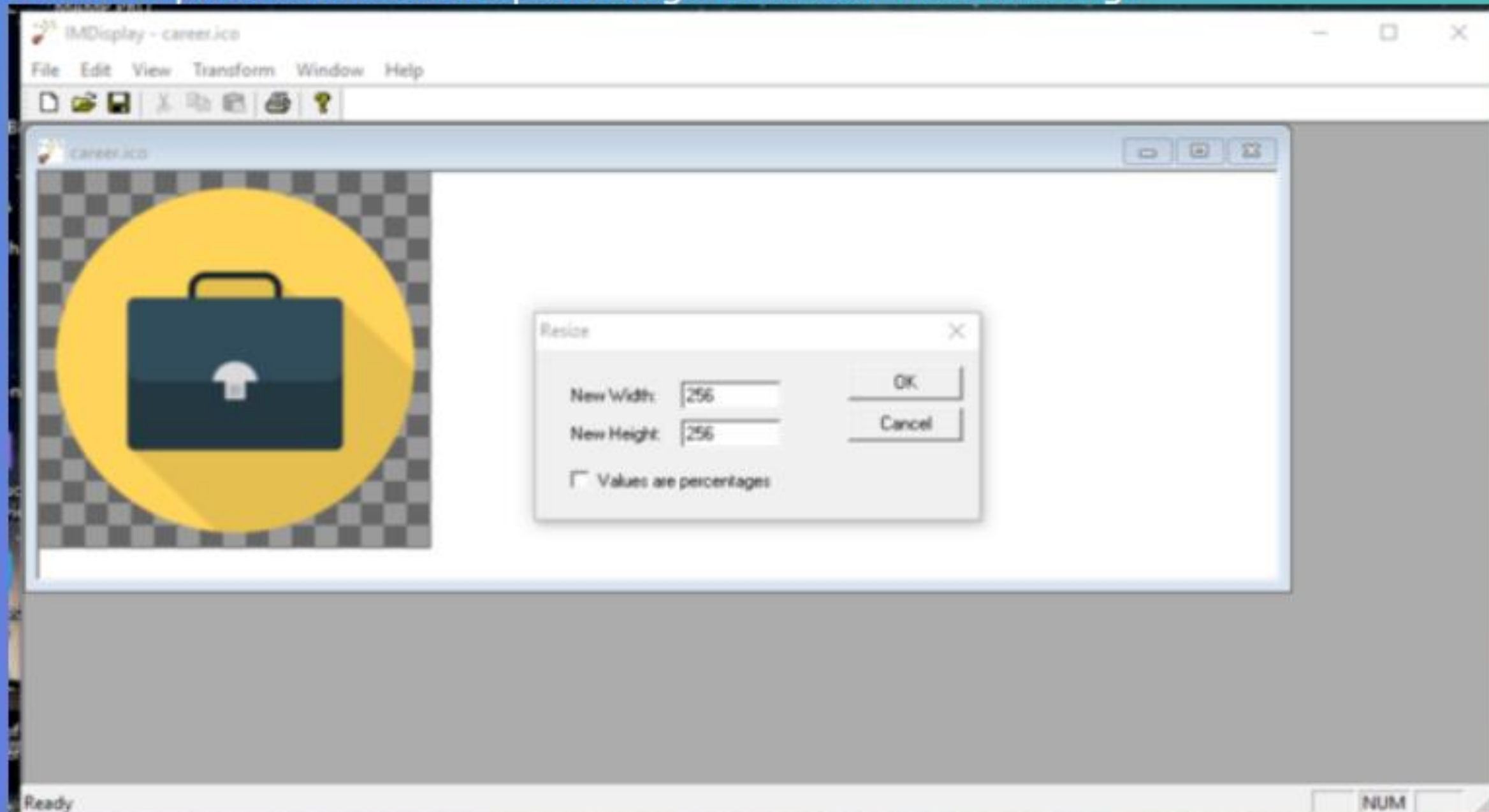
1. Compress using GUI:

1. Open ImageMagick Display Software
2. Click on File > Open
3. Select the image to be compressed > Click Open

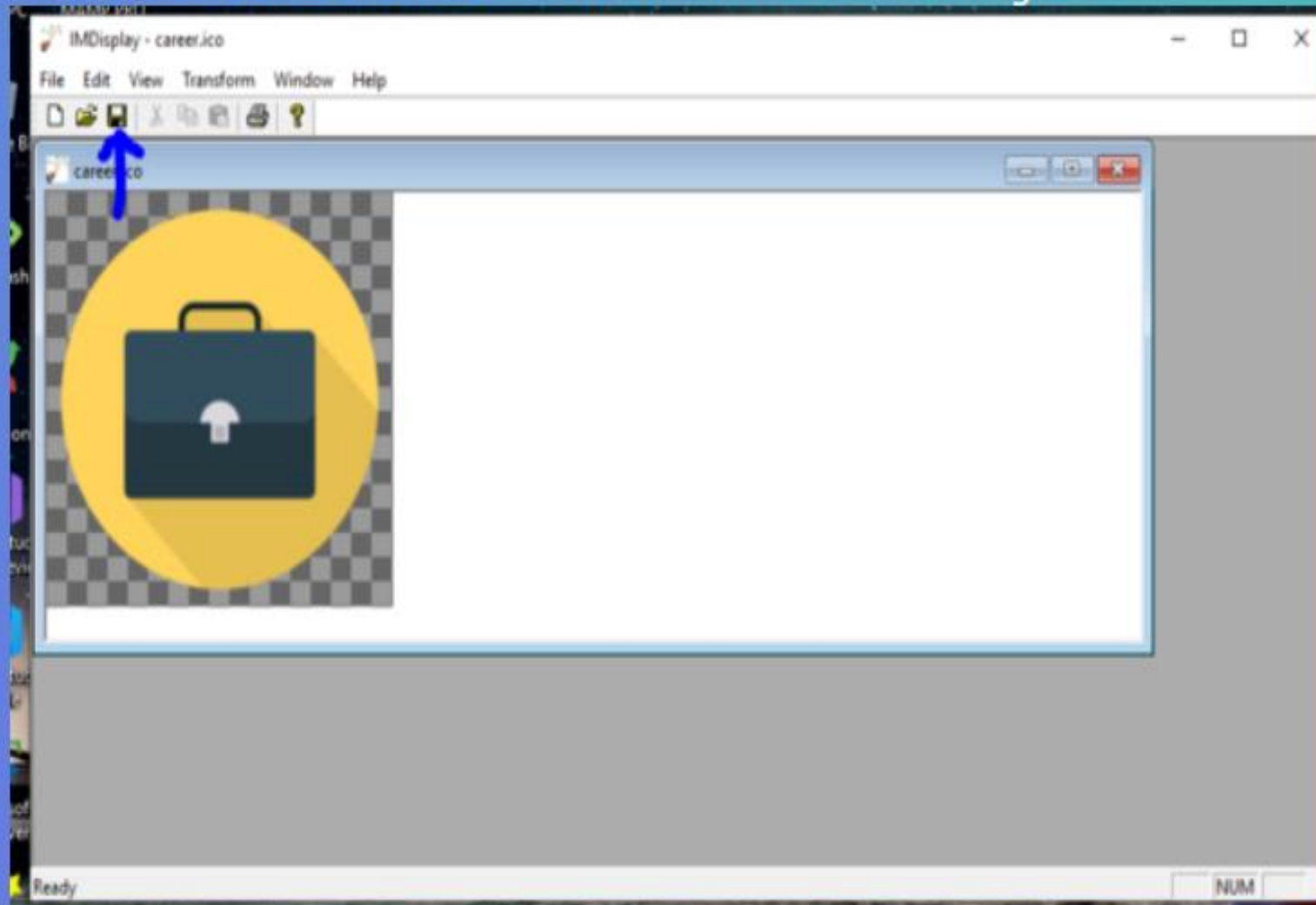


4. Click on View > Resize

5. Enter the pixel values OR the percentage values for the new image



6. Click OK then Click on Save button to save the new resized image

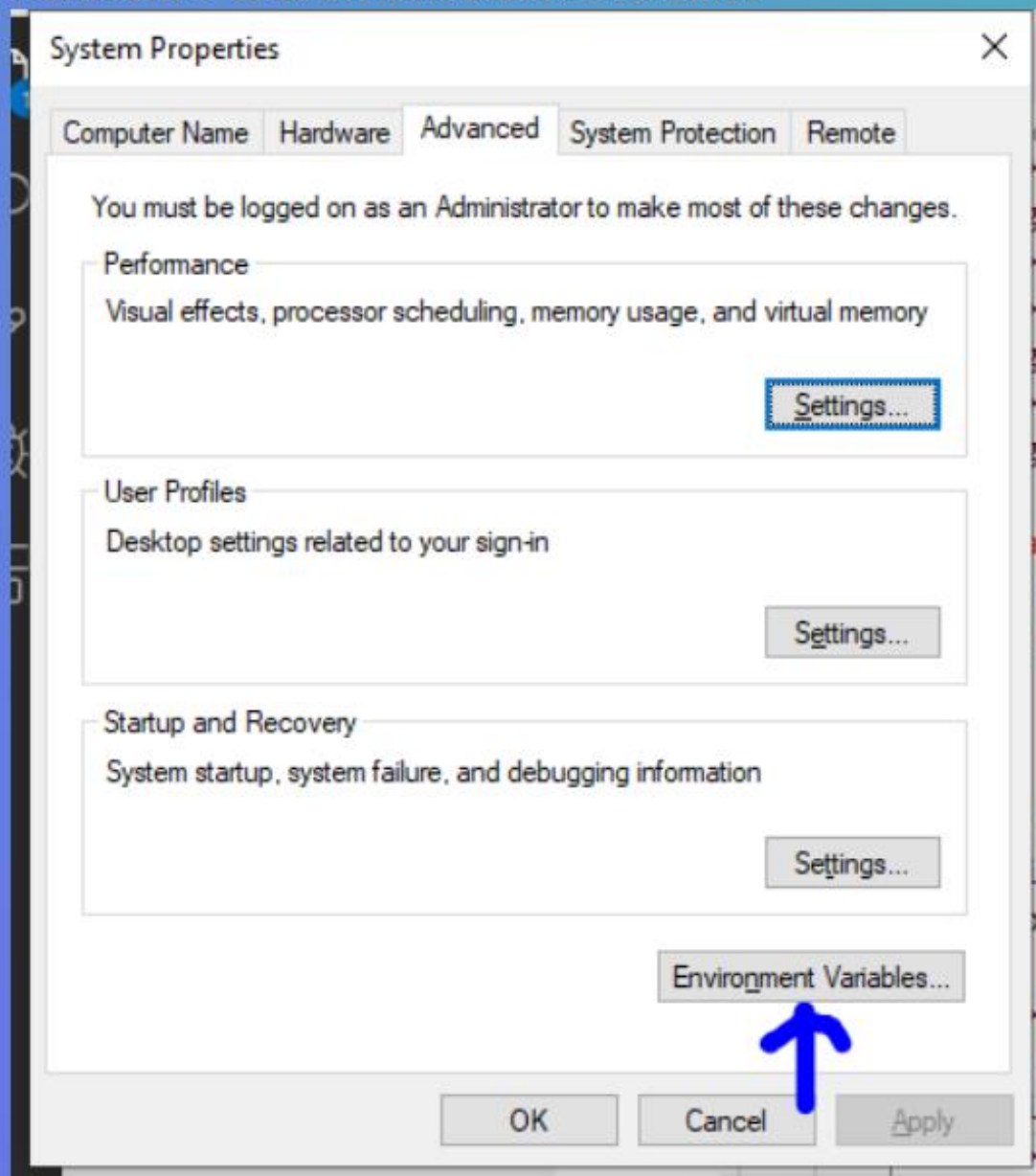


Notes:

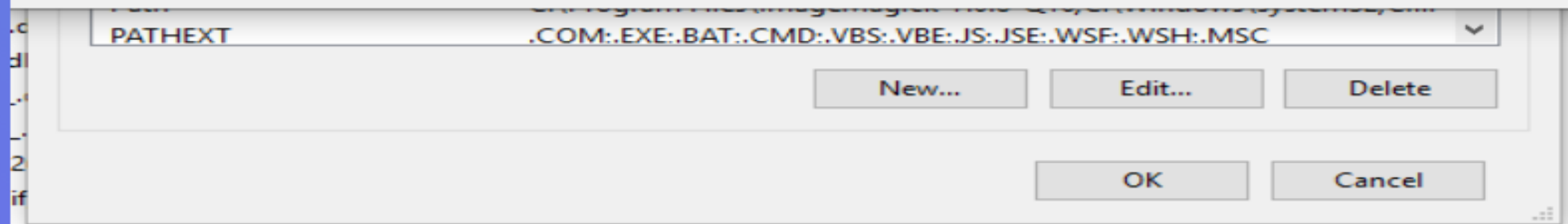
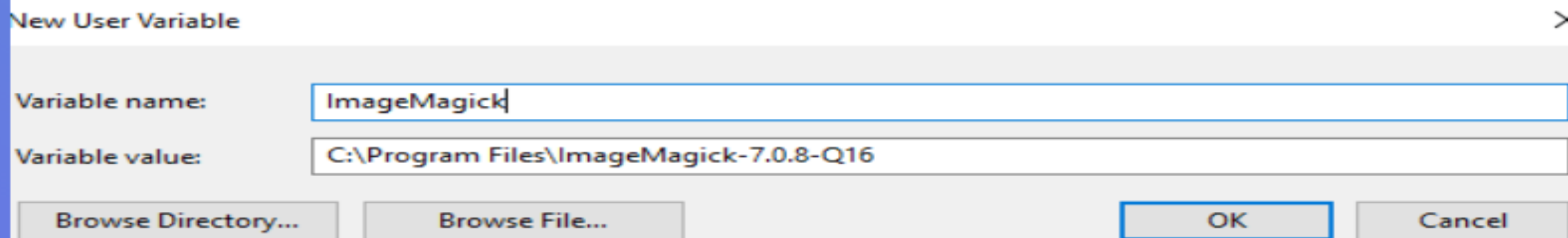
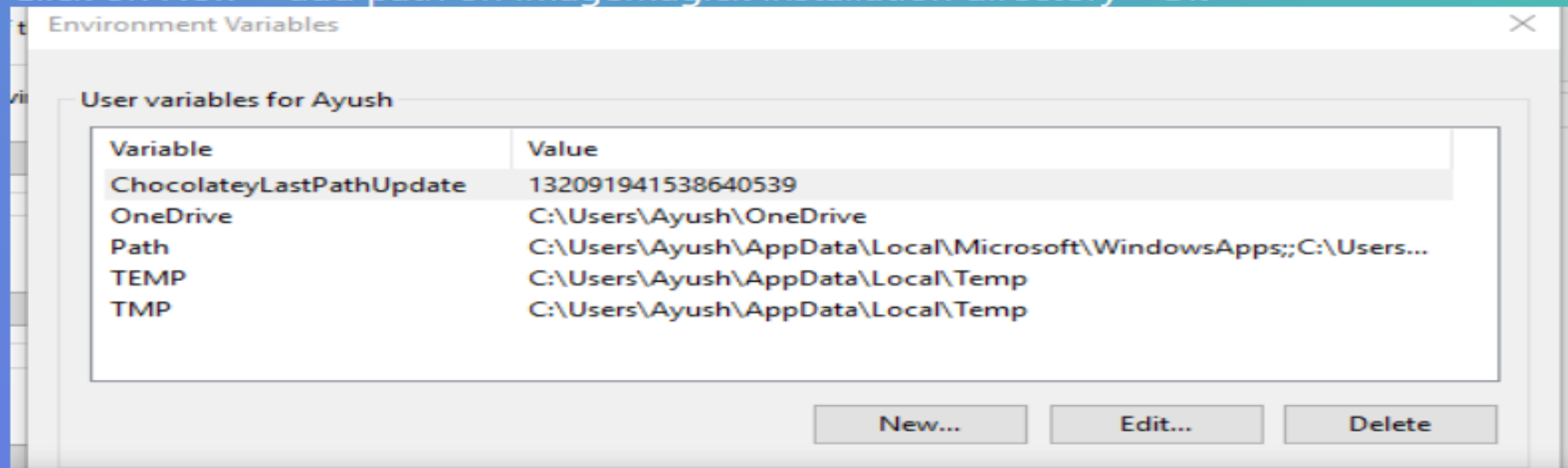
1. ImageMagick will overwrite the original image. So, before compression, make sure to take a back up of the original picture.

2. Compress using Command Prompt:

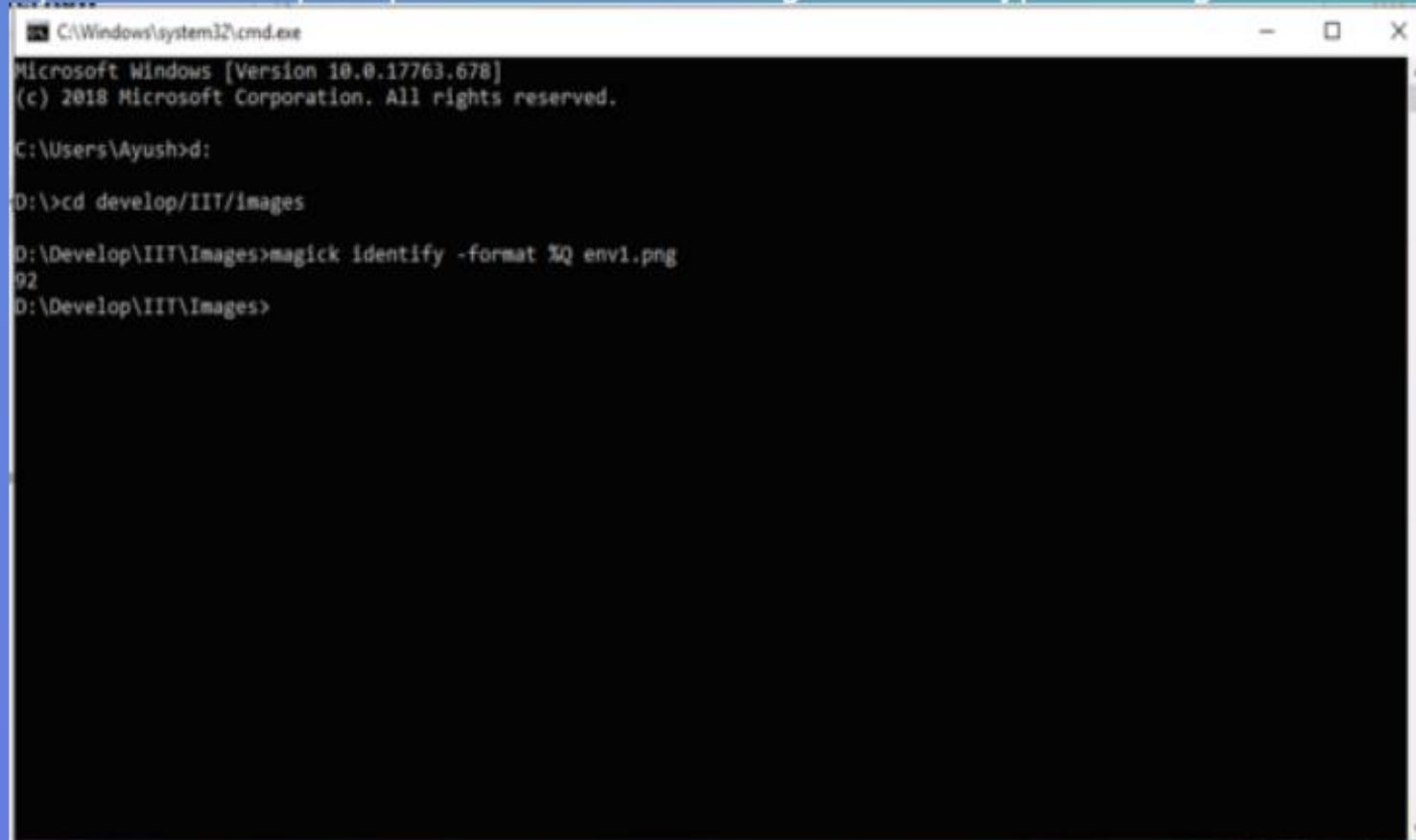
1. First to set up command prompt, add ImageMagick installation path as an environment variable. Open System Properties > Click on Advanced > Click on Environment Variables



2. Click on New > add path on ImageMagick installation directory> Ok



3. The above steps need to be done only once in a system to set up the command prompt. Once done, magick commands can be used using command prompt
4. Open command prompt > browse to the image folder > Type the magick command to identify the image



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.17763.678]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Ayush>d:

D:\>cd develop/IIT/Images

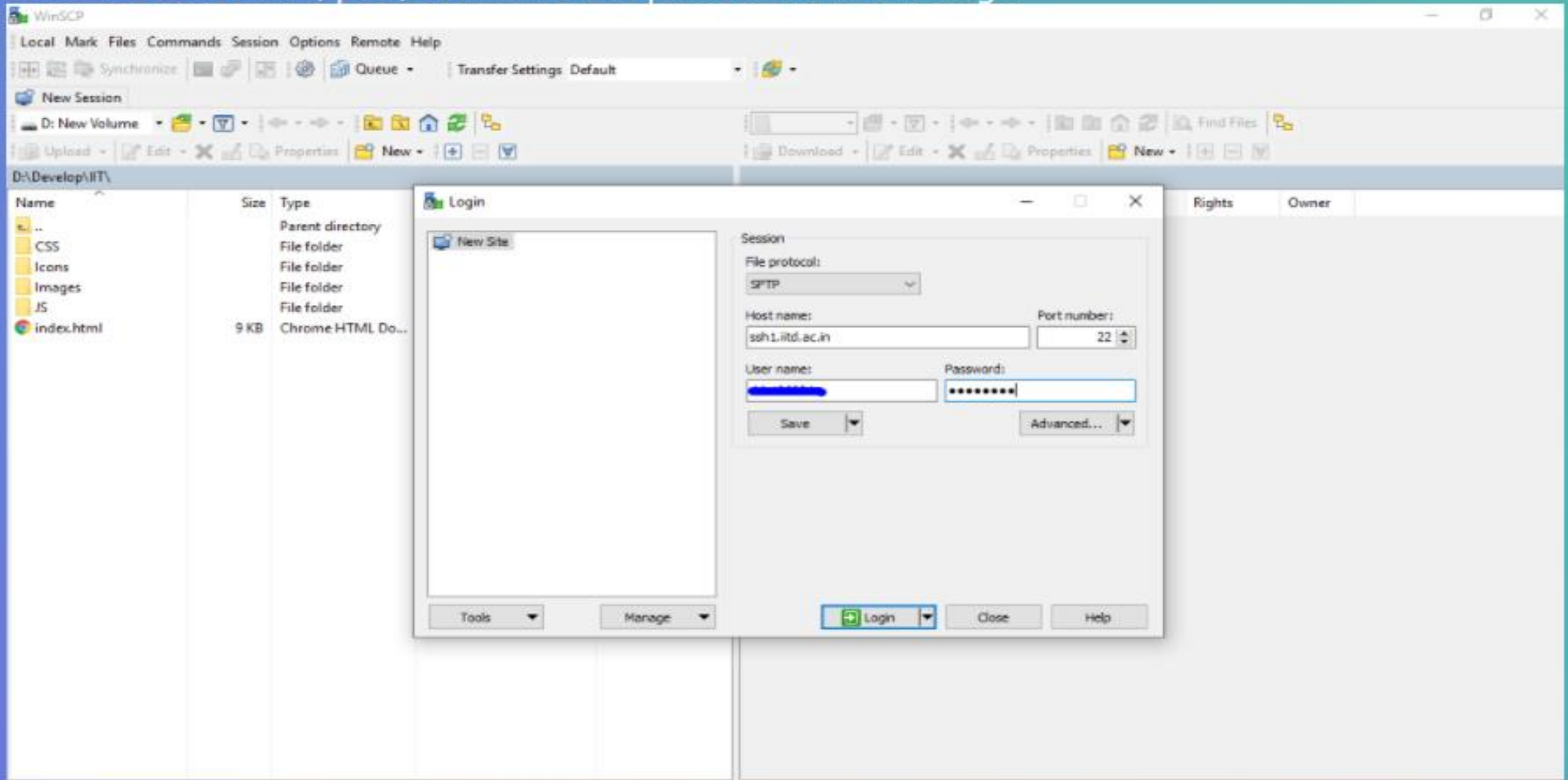
D:\Develop\IIT\Images>magick identify -format %Q env1.png
92
D:\Develop\IIT\Images>
```

Notes:

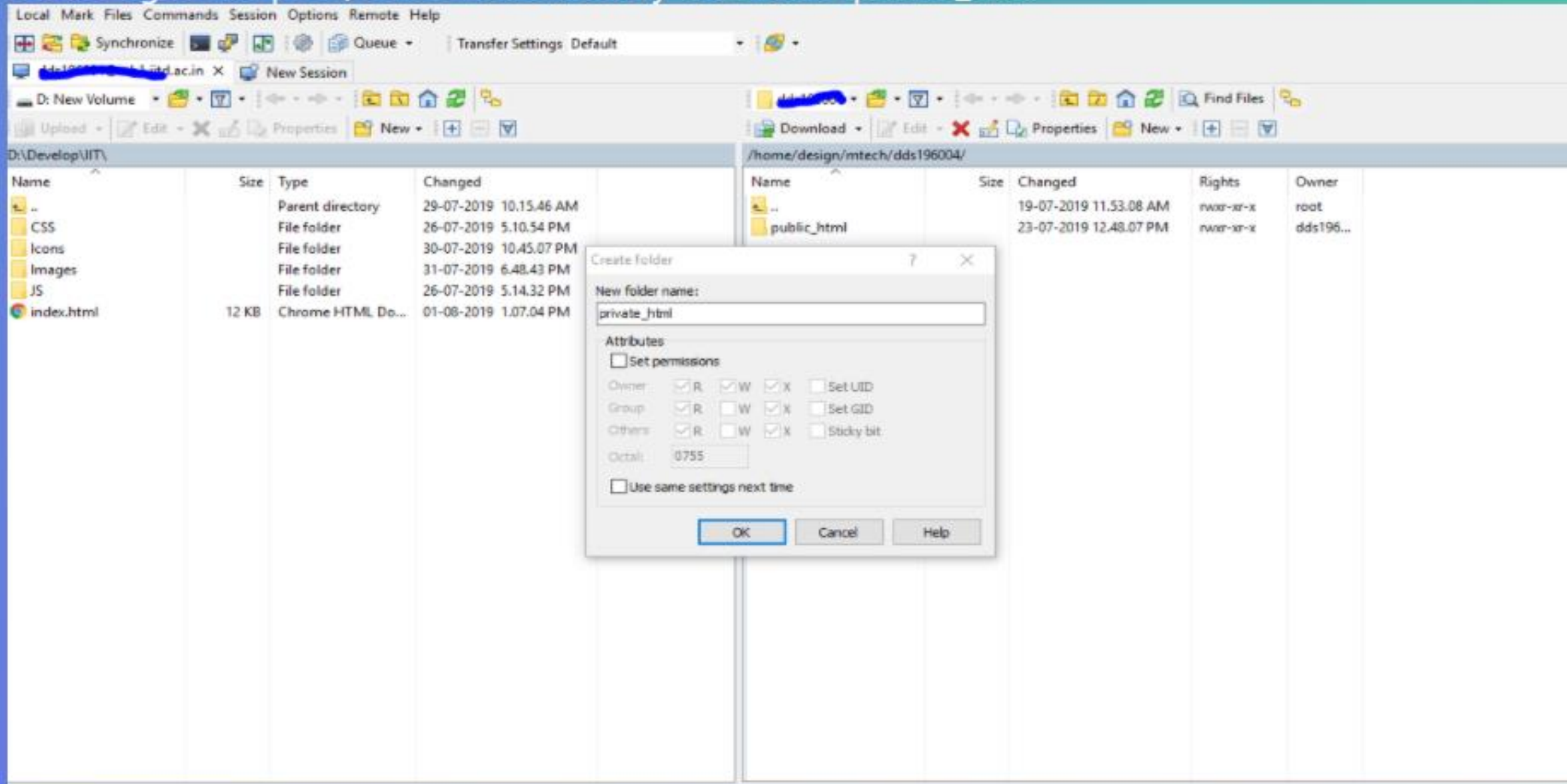
1. Command line can be used to compress multiple images at a time with several other options.
2. Complete list of magick commands can be found here: [ImageMagick commands](#)

Uploading the Web Site on Server

- Open WinSCP
- Enter the host name, port, username and password and click login

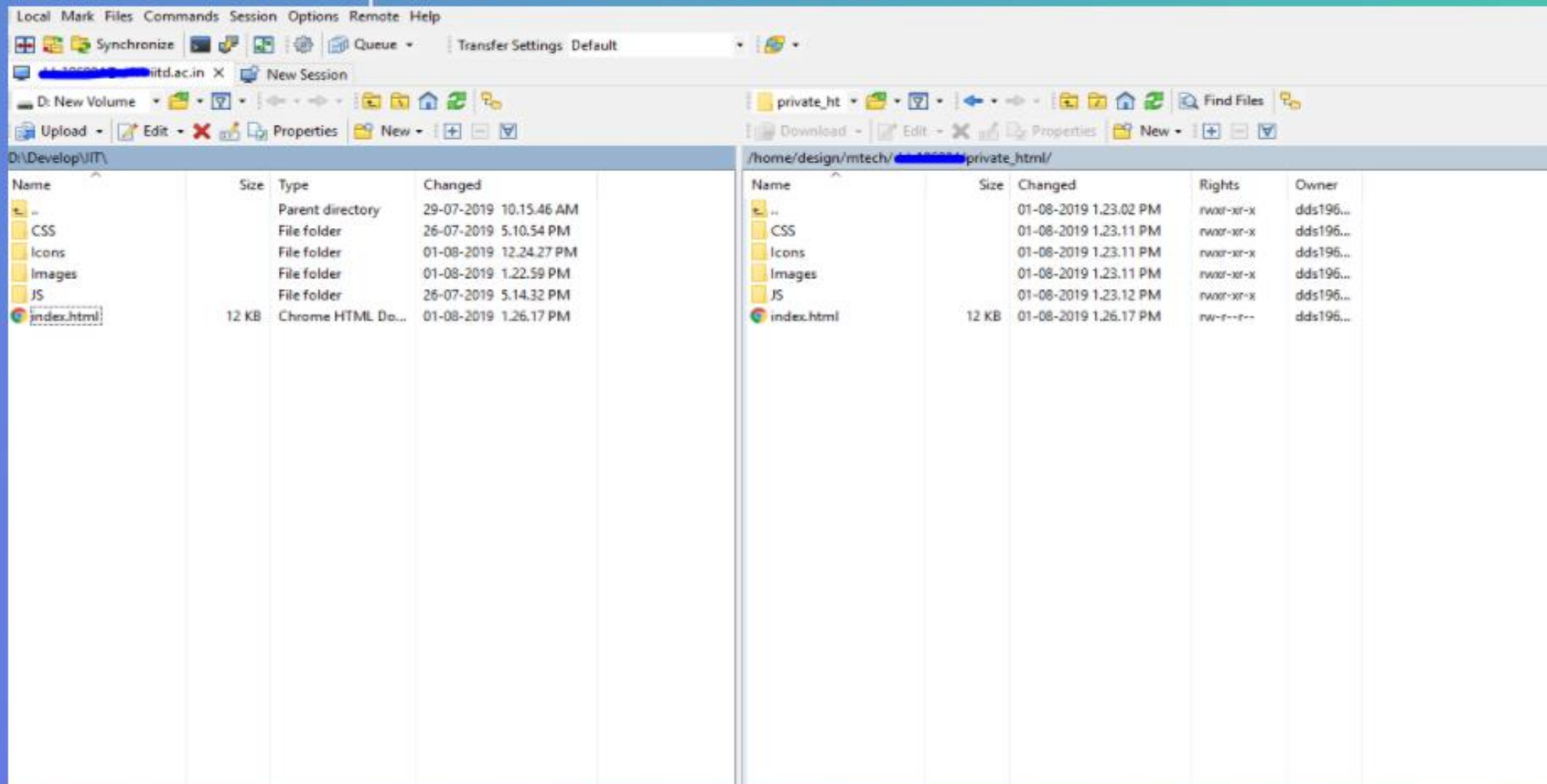


- On the right side pane, create new directory with name 'private_html'



- Open the newly created private_html folder
- On the left side pane, open the directory containing the files on local machine
- Select all the relevant files/folders in the left pane and drag drop them into right pane

- Now the site has been uploaded on IIT Delhi internal server



- Visit the site on IIT Delhi WiFi network via the link : <http://privatweb.iitd.ac.in/~userid>

Notes:

1. While drag and drop, few files may ask for your permission
2. Drag drop will overwrite the files with same name(if any)
3. Details about user web pages can be viewed here : [User Web Pages](#)