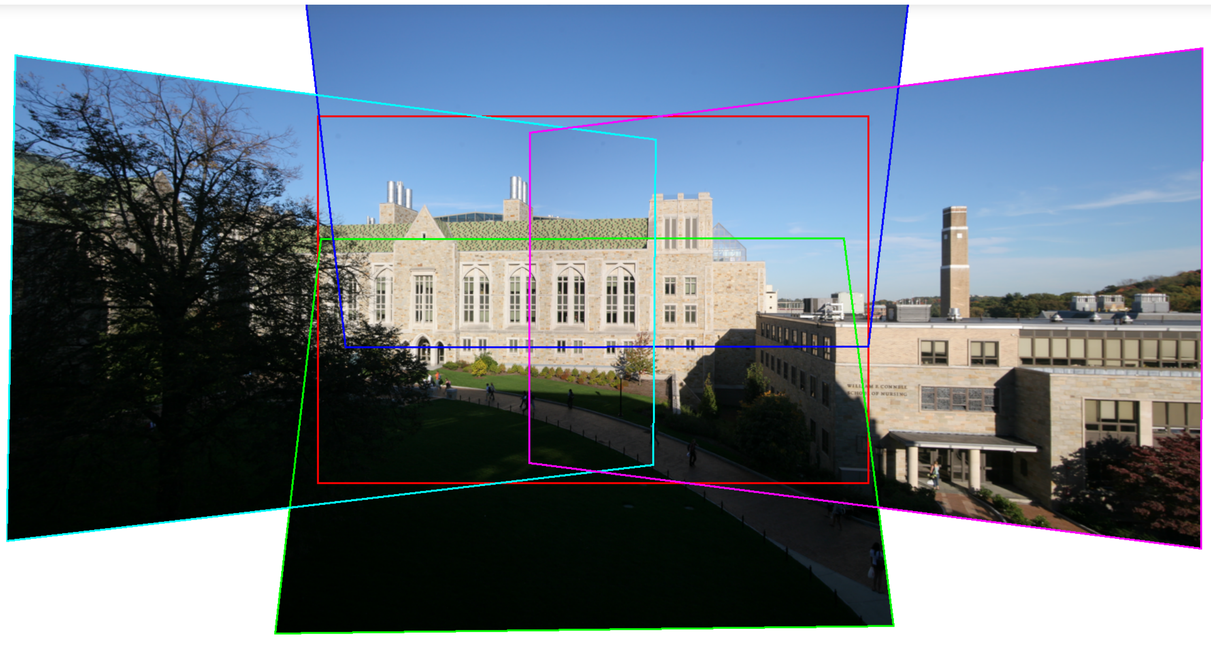

Creating Image Mosaics using Homographies

In this assignment, you will align and blend together multiple photographs to form a panorama mosaic that extends the field of view of a camera.

When two images are taken with same center-of-projection, they can be aligned with a homography transformation. To estimate the correct warping, you'll need at least 4 pairs of corresponding points in the overlaping region. You'll mark these points manually (later in the quarter we will discuss some methods for finding such points automatically without user input) and compute a transformation that aligns them.

The the source images for alignment are available via Canvas in the assignment directory. In addition I have provided a module **selectpoints.py** which contains some code for capturing user clicks. You should download all three files and unzip them into the same directory as this notebook.

To start with, please enter your name and student ID # in the cell below

---

Name: Humza Munir

SID: 69142425

In [1]:
```
#tell ipython that we are running in a notebook.
#this is necessary for the interactive user interface in part 1 below
#%matplotlib inline

#import a few key modules, these should be sufficient to complete the assignment
import numpy as np
import matplotlib.pyplot as plt
from scipy.interpolate import griddata
from scipy.ndimage import gaussian_filter
```