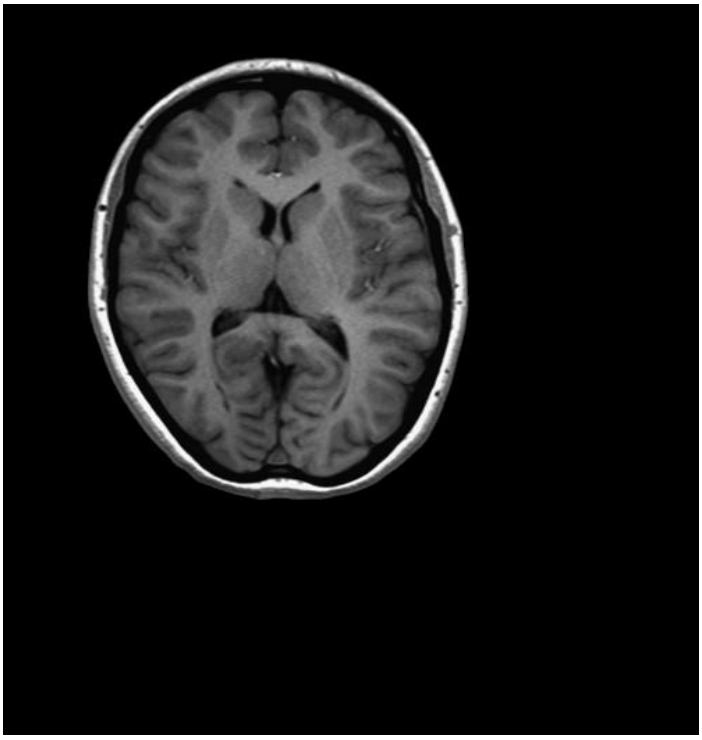
Task 1: Affine Image

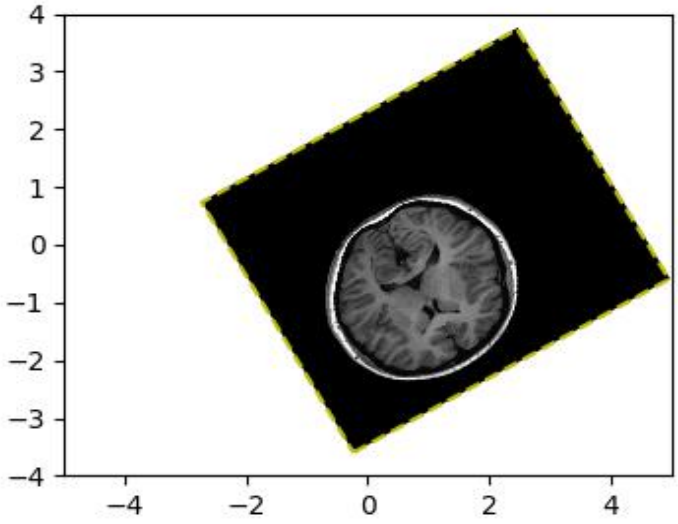
First of all we affine the image using matplotlib in python and then we perform some of the functions.

First of all we see the original image :

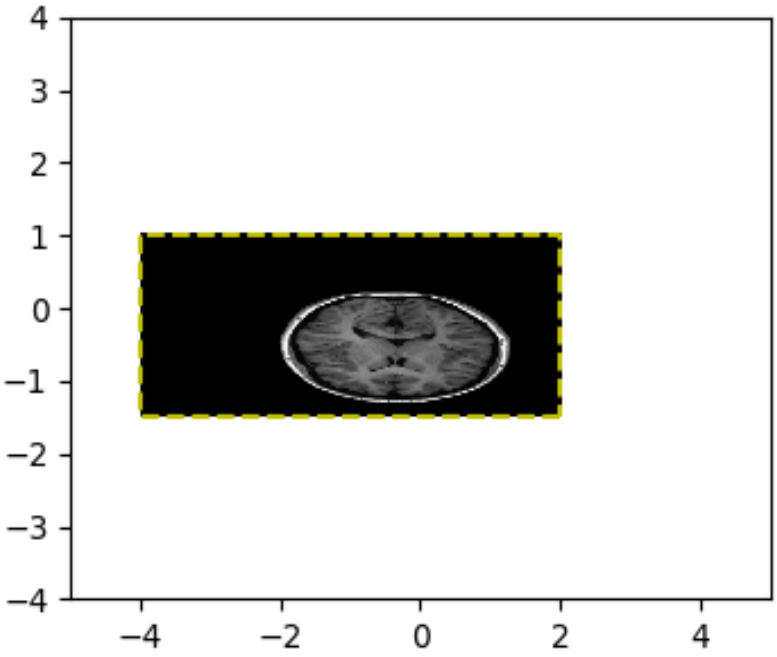


Now we affine the image and then we apply 3 functions like scaling, rotation and translation

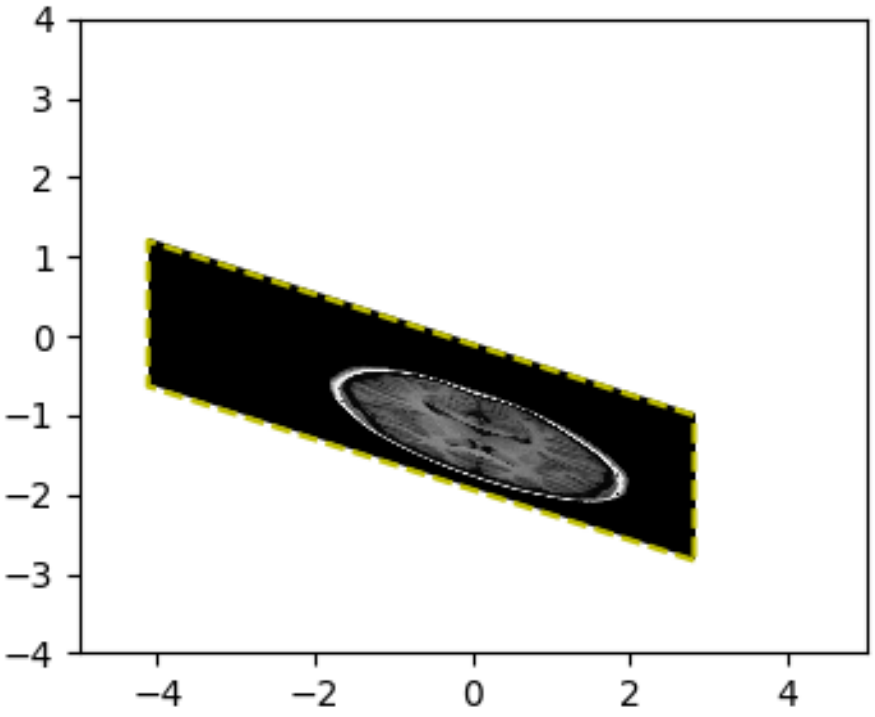
As we define we scale the image 50% and rotation is 30 degree and at the end translation is 50%



Rotation 30 degree



Rotation 30 degree



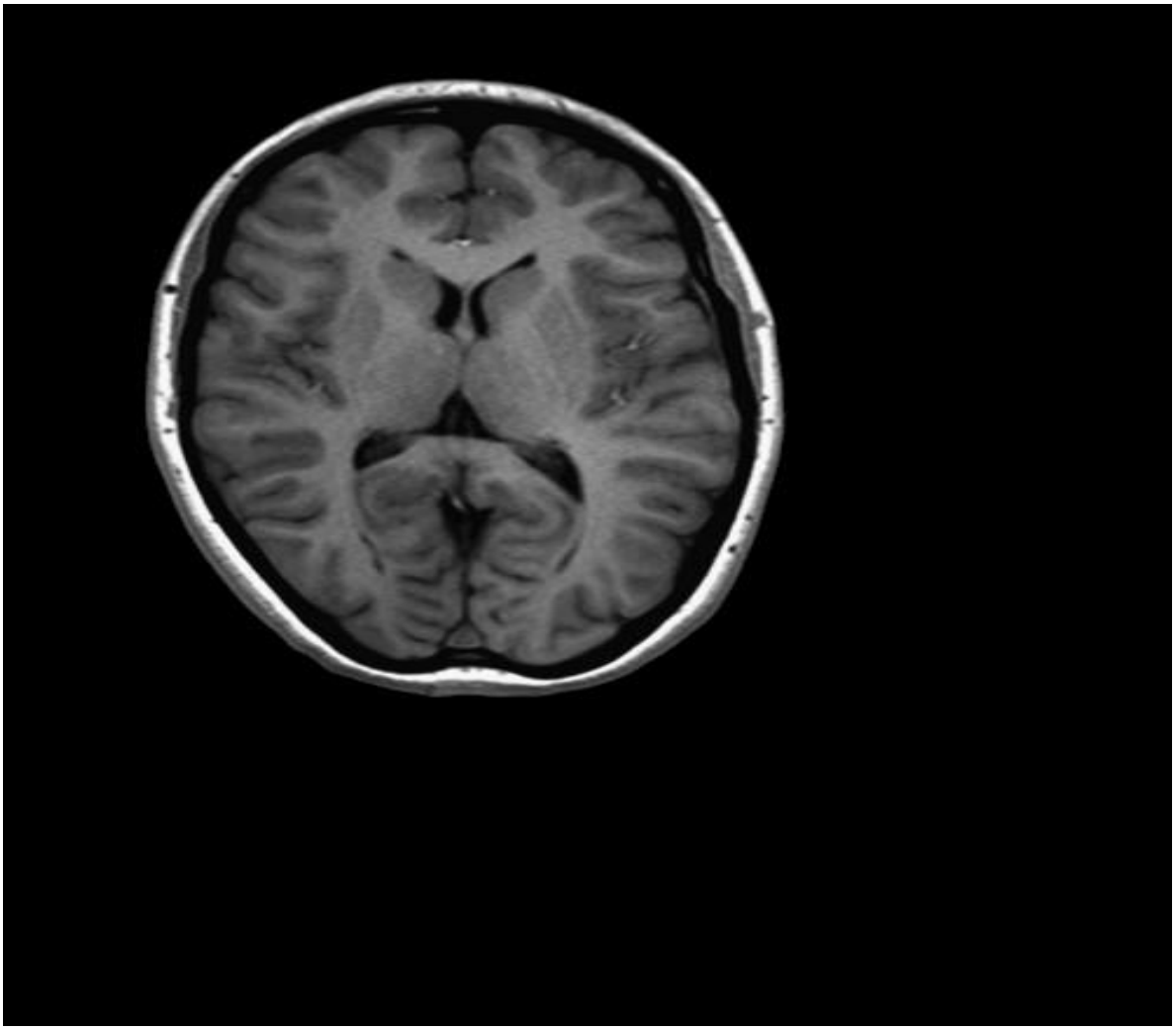
Translation 50%

So First Task is completed

Task 2: Alignment image using Reference image

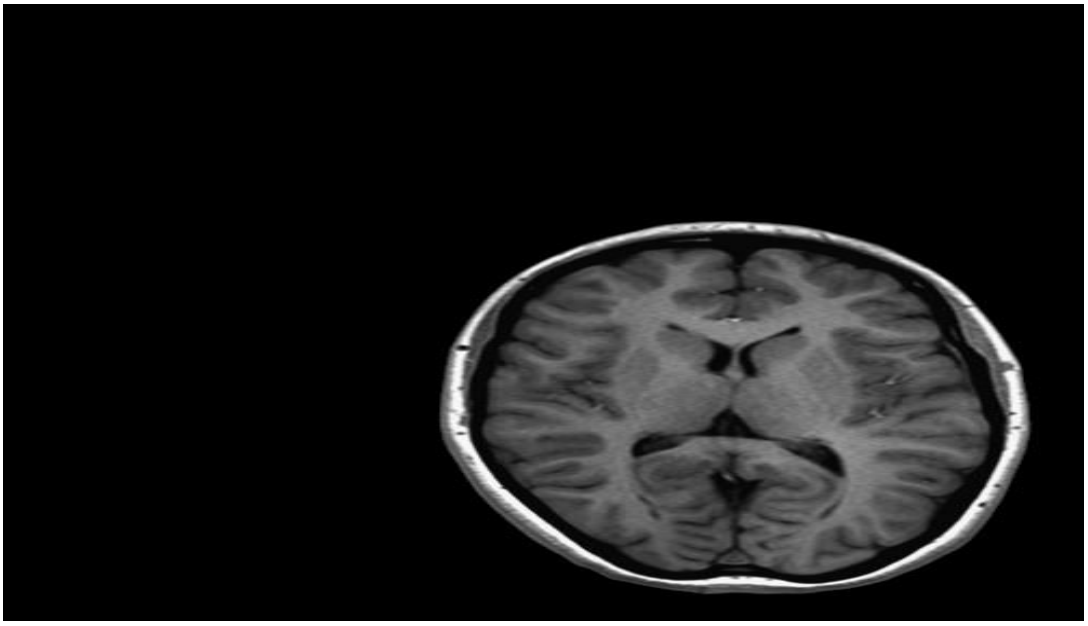
So in this task we align the image using Reference image and the main target is to using 2 images one is main image and second is Reference image and we translate the image 1 to image 2 So we see the image 1 and image 2 as a reference image.

We see First image image1:



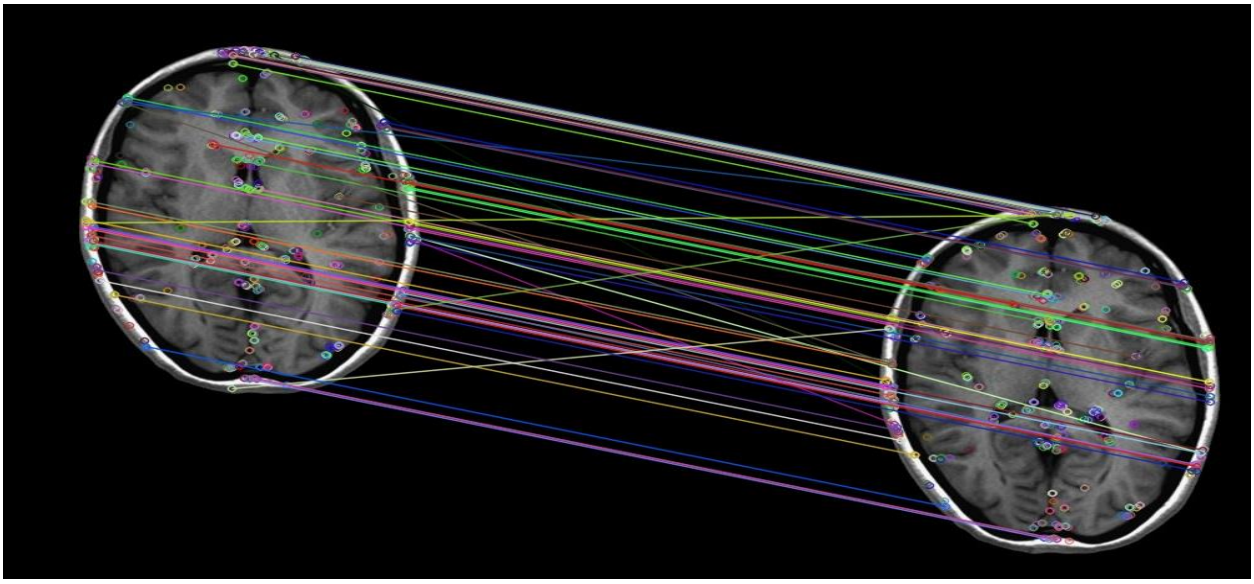
Img1

And now we see img2 as a Reference image:



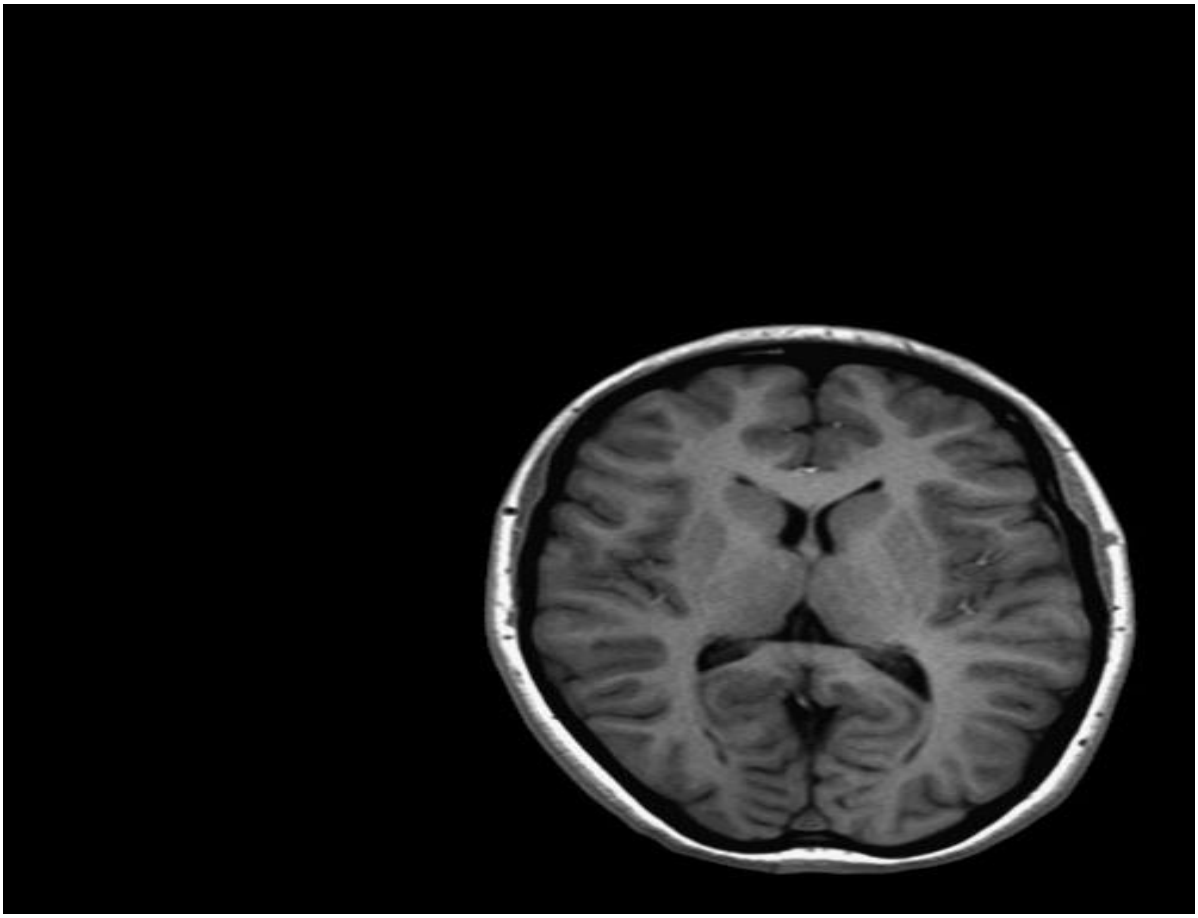
Img2

So when we analize those images using python the result is the following image:



Analizes image

And Now at the end we see the Result of the images using 2 images first is real image which we translated and second image is Reference image so the result is the following image:



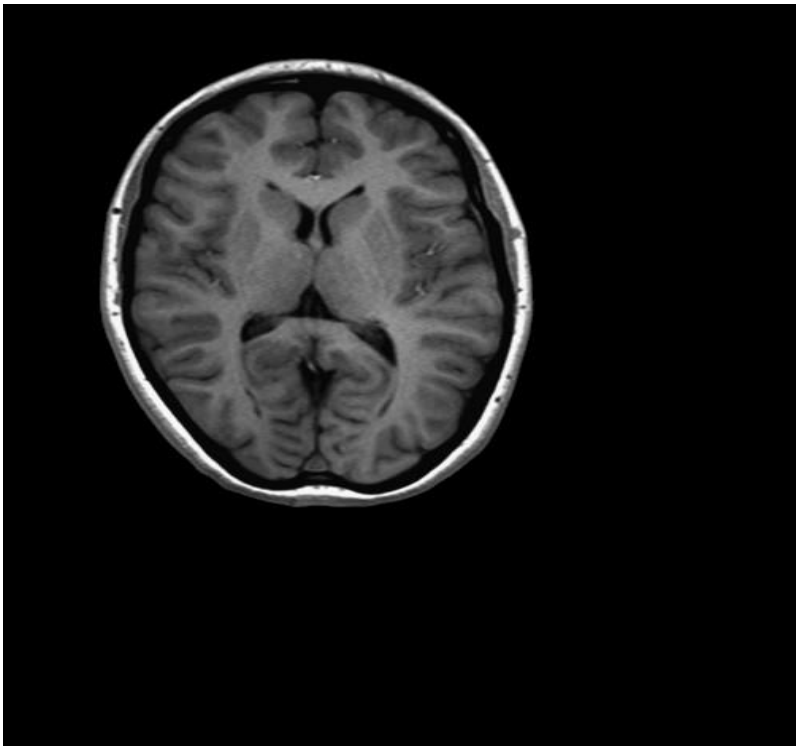
Aligned And Translated image

Task 3: Registration Image

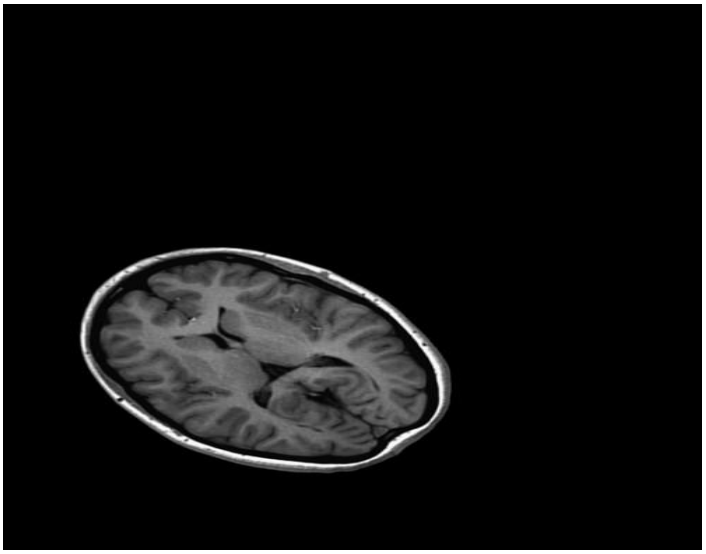
So at this task we will discuss the images Registration of the image. We use 2 images first image which we Registration and Second image is Reference image. We use Open-cv library which is to Registration the one image using Second Reference image. So we see first images then we analyze and at the end we Registration the image using Reference image:

So we see first of all images:

See image 1:



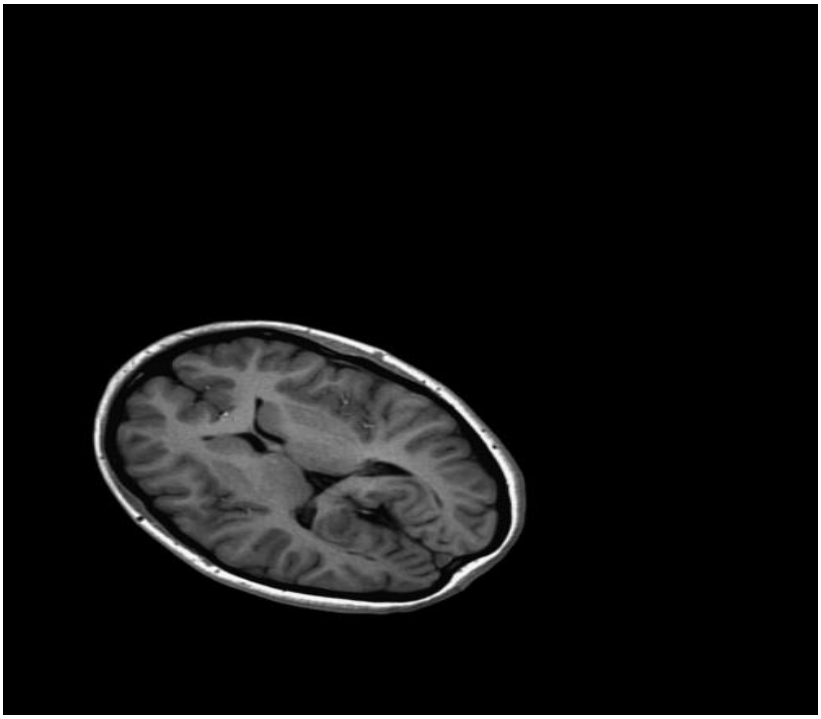
Img1



Img2

So we analyze and images and Registration image

So the Registration image is shown in the following:



Translated image