

Note_book

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In this exercise I had used Python module PIL which can be used to deal with different types of images (editing, creating and drawing). I am using one of its function which is to draw polygon. I am using draw.polygon() method to draw the triangles. Then I am using fill function to fill those triangles with color(blue). I had also specified 400x400 area for the image and fixed the background color to black.

Another thing to note is that the bmp image is not exactly the same as it was given in the assignment (in fact it is upside down), it is because in Python and in PIL the coordinate system is not as same as in C++.

```
[7]: # importing the module
from PIL import Image, ImageDraw

# creating the frame with black background color
img = Image.new('RGB', (400, 400), (0, 0, 0))
draw = ImageDraw.Draw(img)

# drawing the triangles and filling them with blue color
draw.polygon(
    ( (74.5, 175.5), (224.5, 325.5), (374.5, 175.5)),
    fill=(0, 0, 225),
    outline=(0, 0, 225))

draw.polygon(
    ( (374.5, 175.5), (374.5, 325.5), (224.5, 325.5)),
    fill=(0, 0, 225),
    outline=(0, 0, 225))

draw.polygon(
    ( (224.5, 325.5), (74.5, 325.5), (74.5, 175.5)),
    fill=(0, 0, 225),
    outline=(0, 0, 225))

draw.polygon(
    ( (74.5, 175.5), (74.5, 325.5), (25, 125)),
    fill=(0, 0, 225),
```

```
outline=(0, 0, 225))

draw.polygon(
    ( (74.5, 175.5), (374.5, 175.5), (150, 100)),
    fill=(0, 0, 225),
    outline=(0, 0, 225))

# saving the image as bmp file
img.save("BMP_file.bmp", "BMP")
```

[]:

[]: