

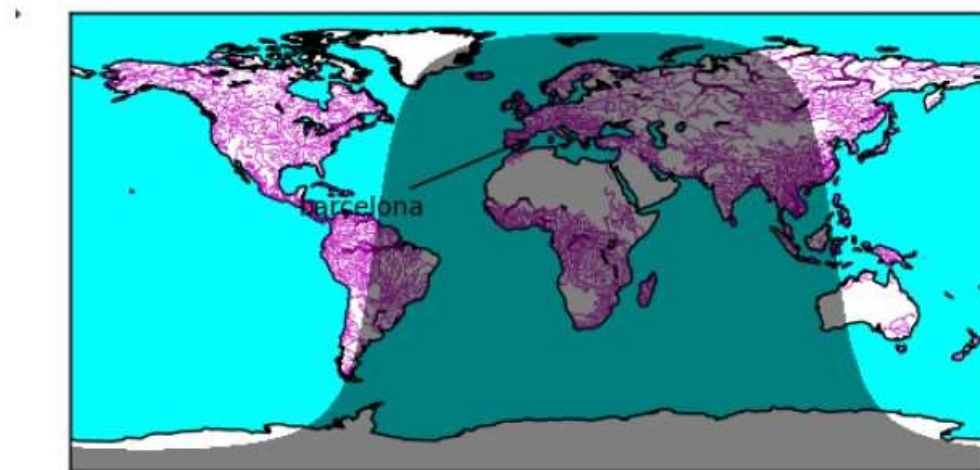
PRACTICAL 11

- To plot data on a map using google map API

```
from mpl_toolkits.basemap import Basemap
import matplotlib.pyplot as plt from datetime
import datetime
```

```
map = Basemap(projection='cyl')
map.drawmapboundary(fill_color='aqua')
map.fillcontinents(color='white', lake_color='aqua') x1, y1 = map(2,
41) x2, y2 = (-90, 10) map.drawcoastlines()
map.drawrivers(color='m') currentdate = datetime(2023, 9, 1, 22, 0)
plt.annotate('barcelona', xy=(x1, y1), xycoords='data', xytext=(x2, y2),
textcoords='data', arrowprops=dict(arrowstyle='->'))
map.nightshade(currentdate) plt.show() Output :
```

PRACTICAL 12



- To create simple captcha generator.

```
from captcha.image import ImageCaptcha
image= ImageCaptcha(width= 280,height = 90)
captcha_text = 'SY45IT' data =
image.generate(captcha_text)
image.write(captcha_text,'CAPTCHA.png')
from captcha.audio import AudioCaptcha audio
= AudioCaptcha() captcha_text = '6245' data =
audio.generate(captcha_text)
audio_file="syit"+captcha_text+'.wav'
audio.write(captcha_text,audio_file)
```

Output :

