

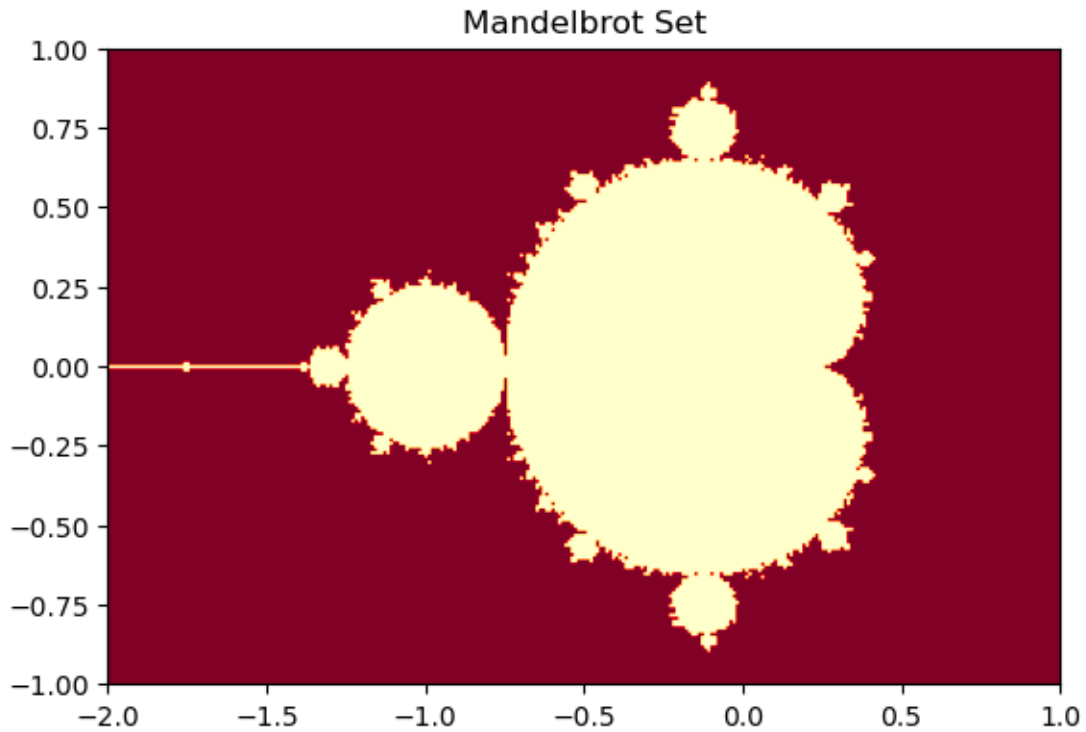
ASSIGNMENT7

March 13, 2025

```
[16]: import numpy as np
import matplotlib.pyplot as plt

Mandelbrot=np.zeros((200,300))
for real in range(300):
    for imag in range(200):
        z=0
        c=(real/300*3-2)+1j*(imag/200*2-1)
        for n in range(99):
            z=z**2+c
            if abs(z)>2:
                break
        if abs(z)<=2:
            Mandelbrot[imag,real]=1

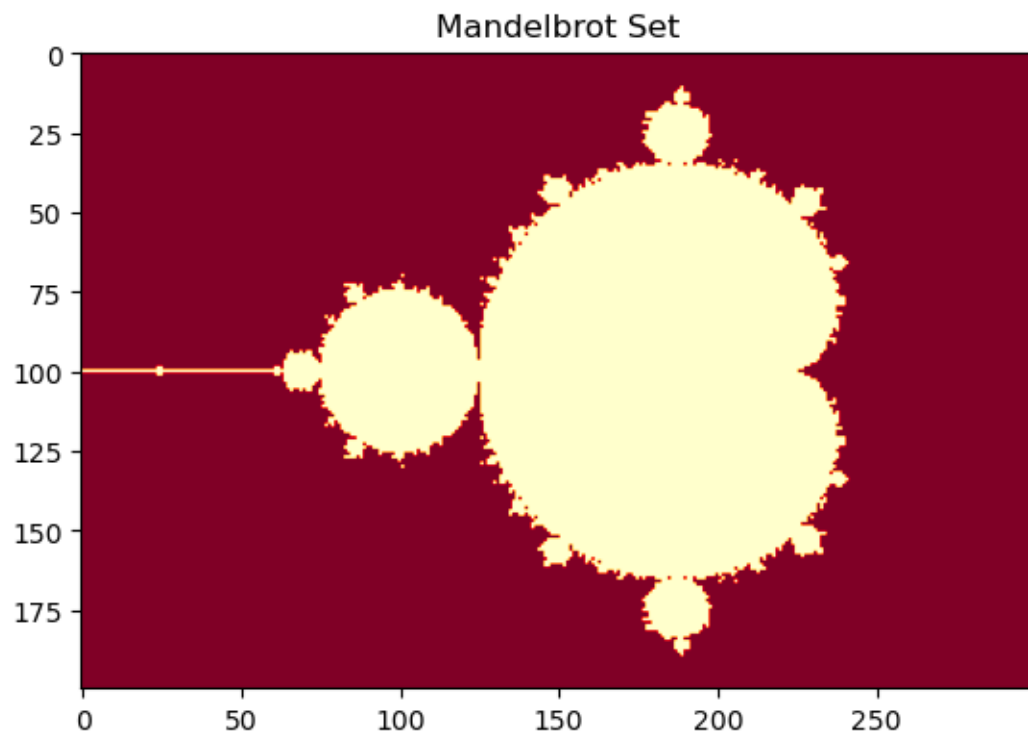
plt.imshow(Mandelbrot,cmap='YlOrRd_r', extent=(-2, 1, -1, 1))
plt.title("Mandelbrot Set")
plt.show()
```



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[]: