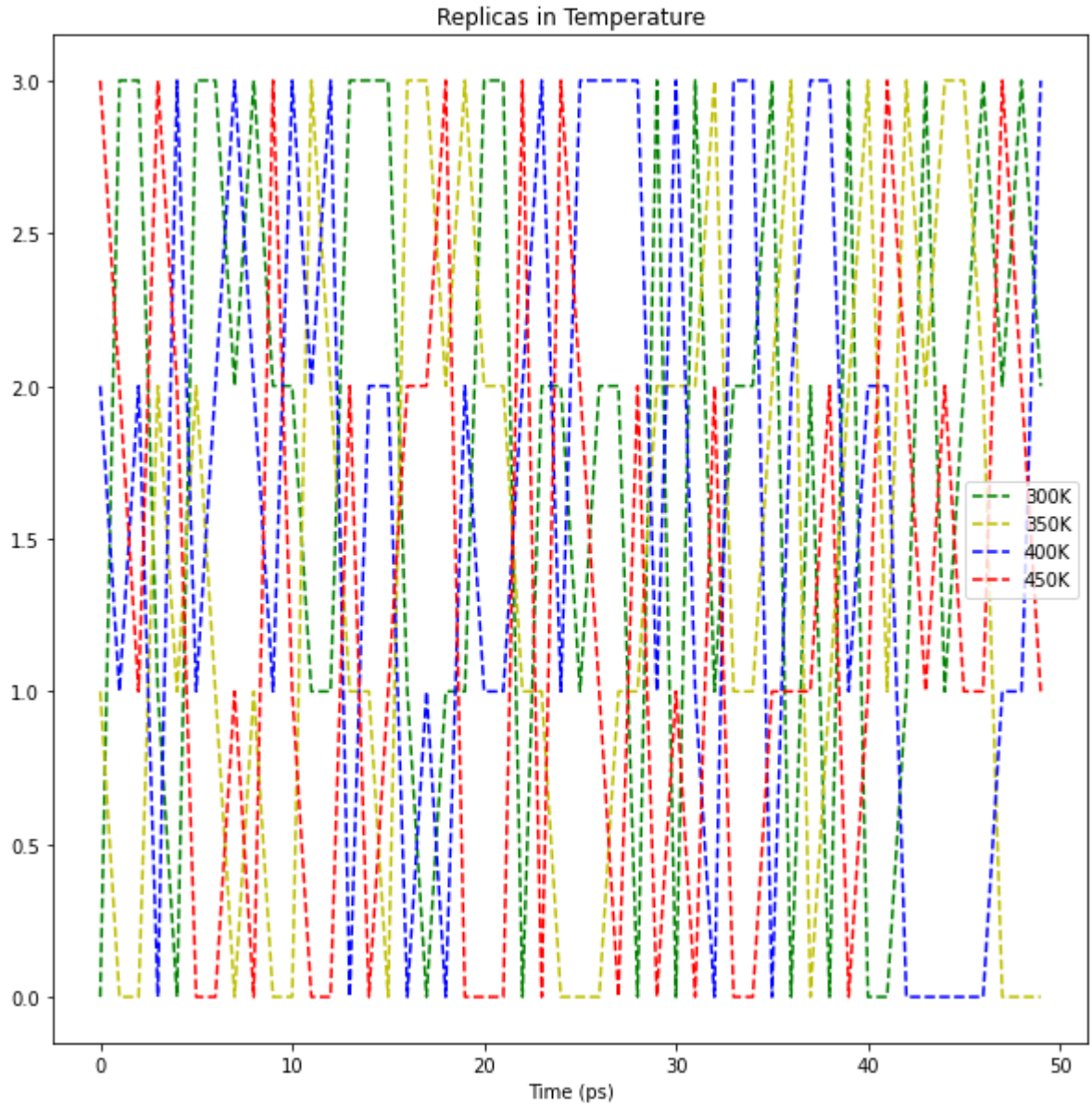
In [15]:
```
#Load Module
import matplotlib.pyplot as plt

#Open replica_temp.xvg file
with open('replica_temp.xvg', 'r') as f:
    lines = f.readlines()

#Create lists for time(ps) and each replica
time = []
replica1 = []
replica2 = []
replica3 = []
replica4 = []

#Iterate every 1000th line (100 ps) and append data to lists
for i in range(0, len(lines), 1000):
    time.append(float(lines[i].split()[0]))
    replica1.append(float(lines[i].split()[1]))
    replica2.append(float(lines[i].split()[2]))
    replica3.append(float(lines[i].split()[3]))
    replica4.append(float(lines[i].split()[4]))

#Plot temperatures for each replica vs time (ps), dotted lines with different colors
plt.plot(replica1, 'g--', label='300K')
plt.plot(replica2, 'y--', label='350K')
plt.plot(replica3, 'b--', label='400K')
plt.plot(replica4, 'r--', label='450K')
plt.title('Replicas in Temperature')
plt.xlabel('Time (ps)')
plt.ylabel('')
plt.legend()
plt.show()
```


Replicas in Temperature
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
10
20
30
40
50
Time (ps)
300K
350K
400K
450K

In [ ]: