

Assignment 2 Report

Output Screenshot:

```
E:\Summer2020\coursara\DevOfRTOS\Week2\FreeRTOSv10.0.1\FreeRTOS\Demo\WIN32-MSVC\Debug
Sending data...
Priority set task has been initialized...
Communication task running fast enough at 0 ms, reducing priority to 2
Data sent!
Communication task running slowly at 1508 ms, increasing priority to 4
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Communication task running fast enough at 8 ms, reducing priority to 2
Data sent!
Sending data...
Data sent!
Communication task running slowly at 1507 ms, increasing priority to 4
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
Data sent!
Communication task running fast enough at 9 ms, reducing priority to 2
Data sent!
Sending data...
Data sent!
Communication task running slowly at 1514 ms, increasing priority to 4
Sending data...
Data sent!
Sending data...
Data sent!
Sending data...
```

Why is "matrixtask" using most of the CPU utilization?

Because matrix multiplication which include a lot of FOR loops and storing Operations

Why must the priority of "communicationtask" increase in order for it to work properly

As matrixtask (Higher Priority) interrupt the communicationtask (Lower Priority) and matrixtask execute while communicationtask wait to send its data

What happens to the completion time of "matrixtask" when the priority of "communicationtask" is increased?

the completion time of "matrixtask" will increase as it has to wait for communicationtask to excute

How many seconds is the period of "matrixtask"? (Hint: look at vApplicationTickHook() to measure it)

```
C:\E:\Summer2020\coursara\DevOfRTOS\Week2\FreeRTOSv10.0.1\FreeRTOS
MATRIX TASK TIME : 1430 ms
```