Project 2

Task 1: LED red blinking at 0.25Hz

Task 2: LED green blinking at 0.25 Hz

Task 3: LED red and LED green light up alternatively at 0.25 Hz

Task 4: LED red and LED green blinking simultaneously at 0.25 Hz

Switch 1: Connected to PD1 generates an interrupt whenever pushed

Switch 2: Connected to PD2 generates an interrupt whenever pushed

Part 1: In this part you design an RTC (Run To Completion) scheduler. Task 1 and Task 2 run concurrently with assigned priority of 3. Task 3 and Task 4 have priorities of 2 and 1 respectively. Task 3 runs whenever Switch 1 is pressed, and Task4 runs whenever Switch 2 is pressed. Lower priority number indicates higher priority. In the interrupt routines just set a flag to show that the related Task is ready to run. Call the scheduler at the end of each completed task.

Part 2: Repeat part 1 using a preemptive scheduler. Here, the scheduler is called at the end of each task and at the end of each interrupt service routine.