Question 1:

To add the rt_nice variable to the sched_entity(se) I have changed the file sched.h so that rt_nice is an unsigned 64bit integer, further more in core.c I have initialized the rt_nice variable to 0.

Now to schedule the tasks appropriately, I have made changes to:
a) fair.c
In this file I have made changes at three places one in the function update_curr which updates the current prcoess's rt_nice variable by subtracting the time that has been already allocated to it.
I have also made changes to the function wakeup_preempt_entity, this function decides the granularity based on the difference of the rt_nice variable of the current task and the scheduled task and based on rtdiff and vdiff it returns a value
I have also made changes to the function called entity_before which is like a comparator for two sched_entities on the basis of rt_nice.

The user should send no input just type make run into the terminal and then enter the soft real time guarantee in microseconds.

Errors handled :

EINVAL: The system call returns this error if the PID is less than 0 or the soft real time guarantee is less than or equal to 0.

ESRCH: The system call returns this error if the process with the PID is not found.

Expected Output:
The output shows the execution time of the both the processes and the time difference, if the time difference is  positive the CFS has been modified appropriately and vica versa.