1- Modify the IDLE Task to keep it always the farest deadline

```
3649
3650        /* ====================== Code Added by Abdallah Salem ====================== */
3651        #if ( configUSE_EDF_SCHEDULER == 1 )
3652        {
3653            /* Modify the IDLE Task to keep it always the farest deadline */
3654            listSET_LIST_ITEM_VALUE( &( ( pxCurrentTCB )->xStateListItem ), ( pxCurrentTCB )->xTaskPeriod + xTaskGetTickCount() );
3655            listINSERT_END( &(xReadyTasksListEDF), &( ( pxCurrentTCB )->xStateListItem ) );
3656        }
3657        #endif
3658        /* ====================== End of Code Added by Abdallah Salem ============== */
```

2- In every tick increment, calculate the new task deadline and insert it in the correct position in the EDF ready list

```
2997
2998                    /* ================================ Code Added by Abdallah Salem ======================== */
2999
3000                    /* In every tick increment, calculate the new task deadline and insert it in the correct
3001                     * position in the EDF ready list
3002                     */
3003                    #if ( configUSE_EDF_SCHEDULER == 1 )
3004
3005                        /* Task deadline = current tick + task period, then insert it into ready list */
3006                        listSET_LIST_ITEM_VALUE( &( ( pxTCB )->xStateListItem ), ( pxTCB)->xTaskPeriod + xTaskGetTickCount() );
3007
3008                    #endif
3009                    /* ================================ End of Code Added by Abdallah Salem ================ */
3010
```

3- Make sure that as soon as a new task is available in the EDF ready list, a context switching should take place. Any task with sooner deadline must preempt task with larger deadline instead of priority

```
3016                    /* ================================ Code Added by Abdallah Salem ======================== */
3017                    #if ( configUSE_EDF_SCHEDULER == 1 )
3018
3019                        /* Context switching to put the task with nearest deadline in the head of
3020                         * the ready list
3021                         */
3022                        xSwitchRequired = pdTRUE;
3023
3024                    #endif
3025                    /* ================================ End of Code Added by Abdallah Salem ================ */
```