

XCRAM

Program Design Language

Submitted to:

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Revision Control

History Revision:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Modification</i>
11/17/16	Sharleen Joy Y. Go	1.0	Initial Document.
11/19/16	Sharleen Joy Y. Go	2.0	Changed some use of functions in accordance with the changes made in the Analysis Model Document.

Program Specification: Add Task

Input:

A new task(NT) and the current schedule(S)

Output:

none

Program Logic:

```
IF NT.type= 1 THEN
    TB=S.LocateTB(NT.muststart,NT.mustend)
    IF not TB.isfree() AND TB.task.isfixed() THEN
        DISPLAY "The desired time is not available"
        RETURN
    ELSE
        IF TB.isenough(NT) and not TB.isfree() THEN
            PQ.insert(TB.task)
            TB.free()
        ELSE IF not TB.isenough(NT)
            temp=0
            IF TB.isfree() THEN
                temp= S.CanCompact(TB,NT)
                IF temp>0 THEN
                    TB= S.Compact(TB,count)
                END IF
            END IF
            IF temp<1
                count= S.CanKickD(TB,NT)
                IF count>0 THEN
                    TB= S.Kick(TB,count)
                ELSE
                    DISPLAY "The desired time is not
                    available"
                    RETURN
                END IF
            END IF
        END IF
    END IF
END IF
```

```

ELSE
    TB= S.LocateFreeFit (NT)
    IF TB= NULL THEN
        TB= S.LocateFree (NT)
        IF TB= NULL THEN
            TB= S.LocateKick (NT)
            IF TB= NULL THEN
                DISPLAY "The new task can no longer fit in the
                    current schedule"
            END IF
        END IF
    END IF
END IF
IF TB.shouldsplit (NT) THEN
    TB.split (NT)
END IF
TB.task=NT
IF not PQ.empty THEN
    S.Reschedule (PQ)
END IF

```