Project Specifications: Data Structures and Functions

- Design and implement the **extended** version of the manager, including:

    - PCB, RCB, and RL data structures

    - functions *create(), destroy(), request()*, *release()*, *timeout(), scheduler(), init()*

- Design and implement the shell (see command language and output specifications)

- Instantiate manager to include the following at start-up:

    - A process descriptor array PCB[16]

    - A resource descriptor array RCB[4] with multiunit resources

        - RCB[0] and RCB[1] have 1 unit each; RCB[2] has 2 units; RCB[3] has 3 units

    - A 3-level RL

- The init function should always perform the following tasks:

    - Erase all previous contents of the data structures PCB, RCB, RL

    - Create a single running process at PCB[0] with priority 0

    - Enter the process into the RL at the lowest-priority level 0