Mastering Embedded systems online diploma

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Final Project 2 :

Eng. Mostafa ElFallal

Student Management system:

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FIFO :

I created a general FIFO (as general as I can).

Tried to use some functional programming technique (call back functions) as I created 2 APIs in The FIFO that helps the user to use the FIFO with any type of data by allowing him to implement his own functions to be performed on the elements in the FIFO.

Allowing the user to implement condition function that allows him to choose alternative elements from the queue to perform some functions on them.

FIFO_userconfig

This is a module where the user of the FIFO implements the required data type for the queue and the functions the will be used as call back.

This technique allowed me to abstract the FIFO so, I can port it easily from project to another with about no effort.

Student_management

This is the application module where the user implements the high-level functions that interact with the program user.

A video for using the system :

https://drive.google.com/file/d/1O3eY7b4xj3TFMiedANX468uUQ3D0R0LW/view?usp=sharing