Day 04: Exercises

Task 04_1_CPP_SpitirLevel

Extend the project: CPP_SpiritLevel_03_04.

- Add a container of type map with 3 Elements: Min, Max and AVG.
  Store the minimum, maximum and average of acc axis Y in the container in the elements: Min, Max and AVG.
  Use the ring-memory allocator for the map.
- Write on the console the min, the max and the average values.
- Create an object of a string class with ring-memory allocator and store the message to be send to console in it.

Optional: Make use of smartpointers

Task 04_2_CPP_Blinky_MemoryPool on heap with smartpointer

Extend the project: CPP_Blinky_02_03.

We want to use a smartpointer pointing on a memory pool containing 3 BlinkingLed Objects. the pool is running on heap.

The rest of the task remains unchanged.

Steps:

- Initialise a memory pool to containing 4 objects of the class BlinkingLed by using a smartpointer.
- Allocate 4 Leds 0 to 4. 1 to 3 are the physical LEDs.

- Extend the constructor of BlinkingLed with an empty default constructor.
- Add a method setPinPort to the class BlinkingLed to set the pin and port if the object is created with the empty constructor.

- Set the Frequency, pin and port to Led 1 to 3 accordingly to exercise 02_03.
- Invoke processBlinking for each LED.