

Bonus1:

MemFree: The amount of physical RAM, in kilobytes, left unused by the system.

MemAvailable: An estimate of how much memory is available for starting new applications. $\text{MemAvailable} \approx \text{MemFree} + \text{Buffers} + \text{Cached}$

Bonus2:

The array declared in the function is a local variable and will be stored in stack segment.

Adding static in front of the array makes it a static local variable and will be stored in data segment.

Declaring an array outside of the functions make it a global variable and will be stored in data segment.

When the size of the array is too big, an overflows happens, since the data segment is larger than the stack segment, it will not overflow.