OS 2020 Problem Sheet #2

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1 Problem 2.1

1.1 Text segment

Text segment stores the machine instructions of the program, which is plain text and is always read-only with a fixed size.

1.2 Data segment

Data segment stores global and static variables, which in this problem is the string variable "Hello World!".

1.3 Stack segment

Stack segment has one stack frame for every function call, which consists at least the return address. Upon the return address, local variables in order are pushed into the stack. In this problem, s, p, len are stacked in given order.

1.4 Heap segment

Heap segment stores dynamic allocation of variables such as malloc/calloc/realloc/free. In this problem, p uses malloc, which creates a dynamic memory segment in the heap segment for later use.

2 Problem 2.2

This hits me so hard, where do I get a standard answer from