ⓘ Students have either already taken or started taking this quiz, so take care when editing it. If you change any quiz questions in a significant way, you might want to consider re-grading students' quizzes who took the old version of the quiz.

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Details Questions

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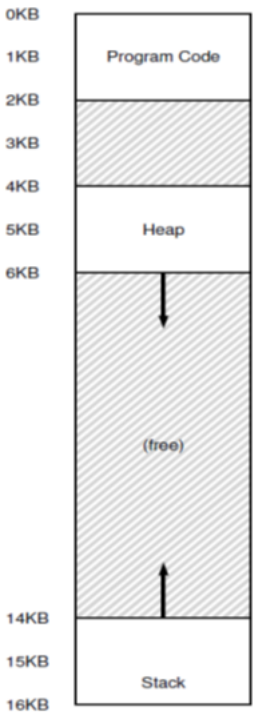
Question 1 pts

What is one key benefit of memory segmentation?

- Segments can be placed independently in any free memory region.
- Segments must be placed contiguously in memory.
- Segments are stored in sorted order in memory.
- Segments take a large amount of memory.

Question 1 pts

Considering the following basic process address space with three segments (code, heap and stack), where will the virtual address of 3072 map to?



Segment	Base	Size
Code	32K	2K
Heap	34K	2K
Stack	28K	2K

Segment Register Values

- Its not a valid virtual address.
- Code segment
- Heap segment
- Stack segment

Question 1 pts

Assuming the following segments information is given to you.

MSB Values	Segment
00	Code
01	Heap
11	Stack

Which segment does the virtual address 136 belong to?

- Code segment
- Heap segment
- Stack segment
- Its not a valid virtual address.

Question 1 pts

Assuming the following segments information is given to you.

MSB Values	Segment
00	Code
01	Heap
11	Stack

Which is the value of offset for the virtual address 136 ?

- 000010001000
- 000000100010
- 1000100000
- Cannot be determined.

Question 1 pts

The main function starts running and the next instruction is being fetched using the program counter. The address of the instruction will be in which segment?

- Code segment
- Data segment
- Heap segment
- Stack segment

Question 1 pts

The main function calls a user defined function taking two parameters. The value of the two parameters that are passed by the user are accessed in the function scope. The address generated for accessing data will be in which segment?

ıswer

- Stack segment
- Code segment
- Heap segment
- Data segment

Question 1 pts

Assuming a simple memory model with three 10 bytes memory allocations in memory at addresses 0 to 9, 10 to 19 and 20-29 respectively. All addresses are inclusive that means allocation includes the first and last address. The first memory allocation at addresses (0 to 9) is used so the free list contains the two memory allocations at addresses (10 to 19) and (20-29). What will be the total free memory in the free list after coalescing?

ıswer

- 20 bytes
- 30 bytes
- 10 bytes
- Cannot be determined.

Question 1 pts

Assuming you made a call to malloc(200). How many bytes will actually be allocated?

ıswer

- 208
- 200
- 204
- 308

+ New question + New question group Find questions

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