Operating Systems
Jacobs University Bremen
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Course: 320202
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Time: 15 min.

**Quiz Sheet #4**

**Problem 4.1:** *segmentation versus paging*                    (2+2+2+2+2 = 10 points)

a) Briefly describe the main difference between segmentation and paging and the main pros and cons of each approach. Which memory management approach exhibits internal fragmentation and which approach exhibits external fragmentation?

b) What is a "Positioning Strategy" and in which memory management approach (segmentation or paging) is it used? Name two possible positioning strategies.

c) What is a "Loading Strategy" and in which memory management approach (segmentation or paging) is it used? Name two possible loading strategies.

d) What is a "Replacement Strategy" and in which memory management approach (segmentation or paging) is it used? Name two possible replacement strategies.

e) What is "Belady's Anomaly"? Which class of replacement algorithms avoids this anomaly? Name an example replacement algorithm that avoids the anomaly.