EE463
Operating System Lab.
King Abdulaziz University
Faculty of Engineering - ECE

Lab. #8

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Solution

Simulator: pagetrans.py
Command: `python ./pagetrans.py -a 8k -p 1k -r 64k -s 105`

Solution:
Virtual Address Trace

VA 0x00000568 (decimal: 1384) →	**RA 0xF168 [VPN= 1]**
VA 0x00000dc3 (decimal: 3523) →	**RA 0x55C3 [VPN= 3]**
VA 0x00000c5d (decimal: 3165) →	**RA 0x545D [VPN= 3]**
VA 0x00000ebb (decimal: 3771) →	**RA 0x56BB [VPN= 3]**
VA 0x00001c32 (decimal: 7218) →	**RA 0x5832 [VPN= 7]**

Simulator: pagetablesize.py
Command: `python ./pagetablesize.py -v 38 -e 16 -p 1m`

Solution:
Virtual Address (VA) = [Virtual Page Number (VPN) | Offset (D)]

VA (bits)	VPN (bits)	D (bits)	pte (byte)
38	18	20	16

Calculate (Linear Page Table Size) and write the results in the simplest readable form (e.g. byte, KB, MB, GB, and TB)
Linear Page Table Size = 2^{18} x 16 = 4194304 bytes = 4 MiB