

Computer Organization

Assignment - 3

Due date: 5th April, 2018

1. Write a program to reverse string using MIPS instruction set architecture.
Ex: Given Input string: aabc
Expected Output: cbaa
2. Write a program to delete a substring from given string using MIPS instruction set architecture.
Ex: String - aacadacdad
Substring - ad
Expected output - aacacd
3. Compare and Contrast the following
 - (a) HDD (Hard Disk Drive) and SSD (Solid State Drive)
 - (b) RAM and ROM
 - (c) I-cache and D-cache
 - (d) RISC and CISC
 - (e) DDR2, DDR3, and DDR4
4.
 - (a) A brief description of the processor, main memory, and secondary memory used in your laptop/system.
 - (b) Provide cache hierarchy of your laptop/system. Write Linux commands to know the sizes of L1, L2 and L3 caches and their associativity.
 - (c) How to run a program on the specific processor.
 - (d) How to use perf tool and show it by considering few examples.