

## CTT10009 – COMPUTER SYSTEM

### EXERCISES

#### EX3: X86 assembly

##### I. Information:

Code:	EX3
Deadline:	
Form of submission:	Individual
Tool to submit:	Moodle
Supervisor	Chung Thùy Linh
Email	ctlinh@fit.hcmus.edu.vn

##### II. Outcome

After this exercise you will reach to:

- G4.3: Be able to understand and use assembly language to program in X86 bits platform

##### III. Describe

A. Please read the following MIPS code and named the meaning of this code (describable in C code/ pseudocode):

```
.model small                                input:
.stack 100h                                mov AH, 1h
.data                                       int 21h
c DB ?
.code                                       mov c, AL
mov AX, @data
mov DS, AX                                cmp c, 41h
                                           jb input
                                           cmp c, 5Ah
                                           ja input
```

B. Convert these C code to X86 code:

```
1. f = g + B[8]                            //f→$t0, g→$t1, B→$s0
2. if (a < b)                               // a→$s0, b→$s1
    printf("%d", 1);
else
    printf("%d", 0);
```

##### IV. Submission requirement:

1. Please submit to moodle site with the name **Student\_ID.pdf**