National University of Computer and Emerging Sciences

Lab Manual

Computer Organization and Assembly Language

Lab 08

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Class	CS3
Semester	Fall 2022

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Objectives

- String Processing
- STOS Example – Clearing the Screen
- LODS Example – String Printing
- SCAS Example – String Length
- MOVS Example – Screen Scrolling

Contents

Note for all questions: You can make as many memory variables, subroutines as you need. Must read all the manual before starting.

ACTIVITY 1: [20 Marks]

Write a subroutine which uses nested loops for creating a delay of around 3-5 secs**.**

Note: Do not use any special commands or interrupts for creating any delay.

ACTIVITY 2: [20 Marks]

Practice the following examples from **Chapter 7** and display their outputs in report:

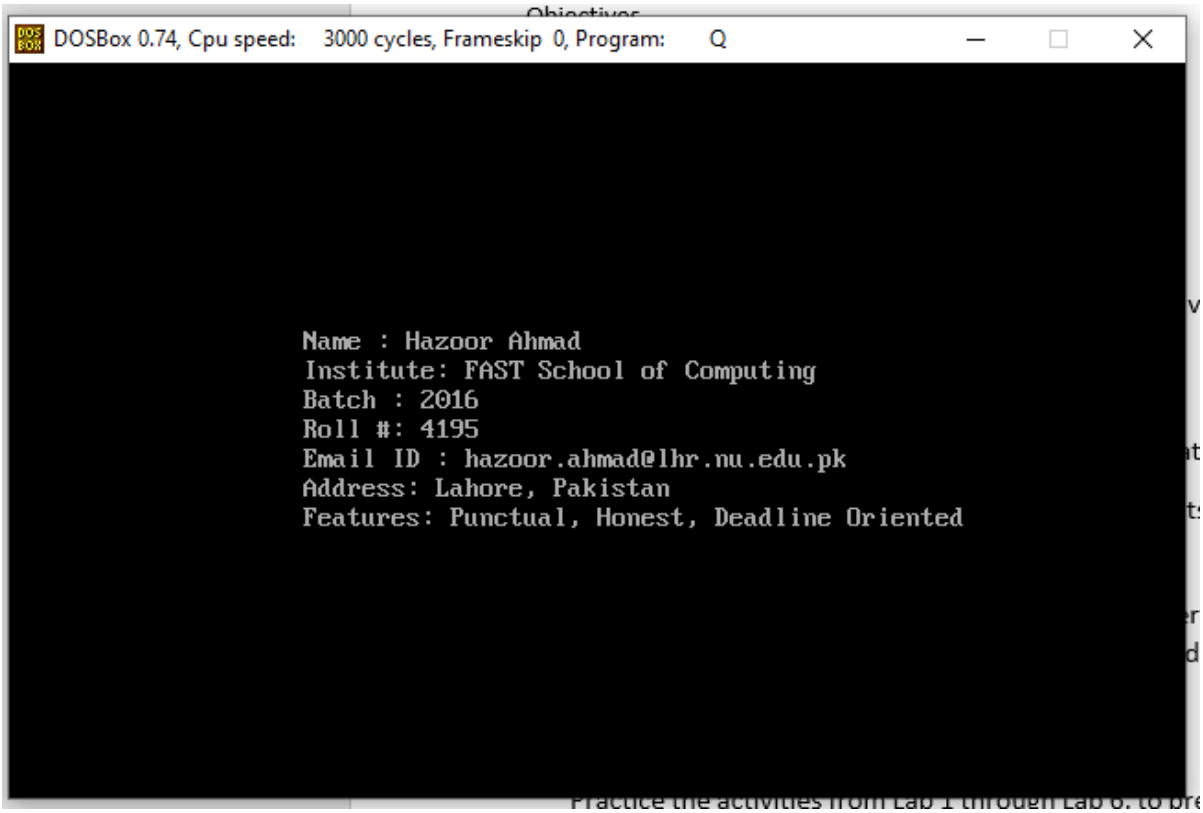
- STOS Example – Clearing the Screen
- LODS Example – String Printing
- SCAS Example – String Length
- MOVS Example – Screen Scrolling

ACTIVITY 3: [40+20 Marks]

a. Use the subroutines developed in **Activity 1** and **Activity 2** to create an animation (of Start or End Screen) which shows the following information about you (every message with delay) as shown on the following figure and in the YouTube link [1]. **(40 Marks)**

   Note: Do not pass string length parameter calculate string length automatically.

b. Record a video of your animation through Mobile or any screen recorder and submit along with the report. **(20 Marks)**



REFERENCES

[1] https://youtu.be/Anphs9zoP_c
[2] http://www.dosbox.com/download.php?main=1
[3] http://sourceforge.net/projects/nasm
[4] http://www.nasm.us/
[5] http://www.programmersheaven.com/download/21643/download.aspx (AFD)