National University of Computer and Emerging Sciences

Lab Manual

Computer Organization and Assembly Language

Lab 09

Instructor	Rida Mahmood
Class	DS3
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Fast School of Computing

FAST-NU, Lahore, Pakistan

Objectives

- Subroutines
- Display Memory
- String Instructions

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 program which prints a moving counter as shown in the attached video file[1].

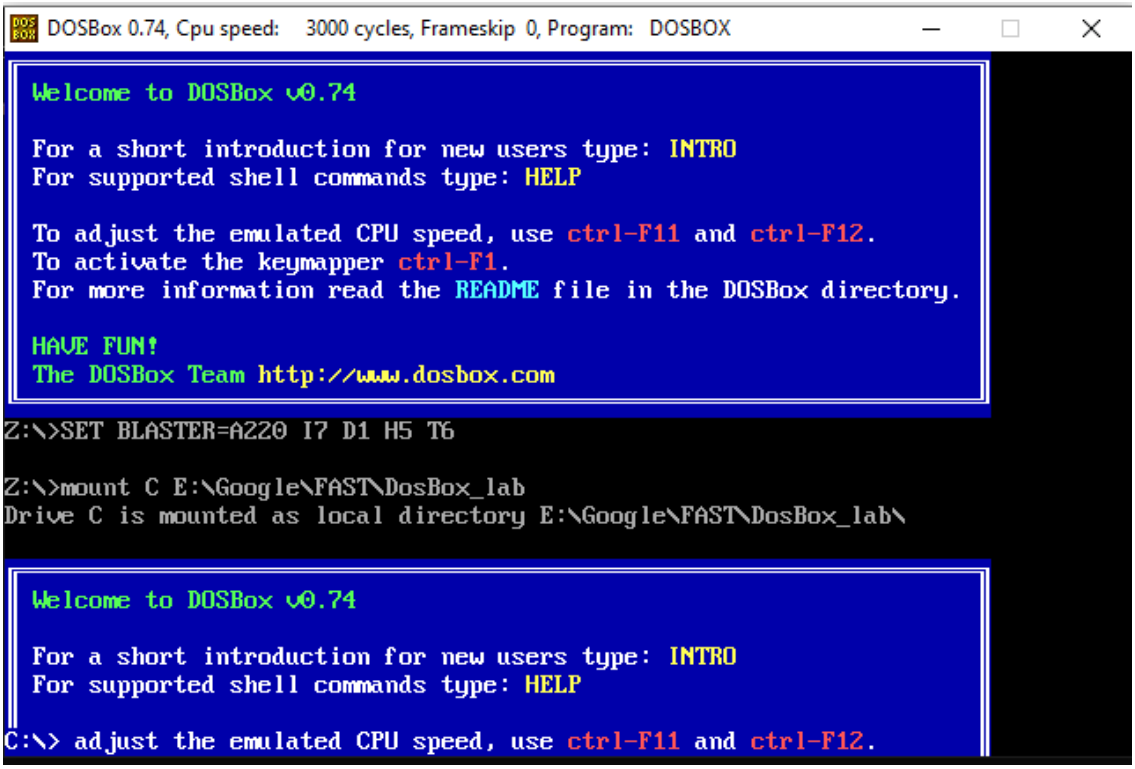
ACTIVITY 2: [20 Marks]

Write a subroutine **RANDOMPOS** which (on each call) receives a number as **SEED** and based on that **SEED** generates random position (**X**, **Y** of the DOSBox Screen).

Write a program which displays Counter from **Activity4** on random locations Using the **RANDOMPOS**.

ACTIVITY 3: [10 Marks]

Write a program that copies the first 7 lines of AFD Introduction screen in last 7 lines, As shown below:



REFERENCES

[1] https://www.youtube.com/watch?v=ylmCcDf3Oek
[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)