National University of Computer and Emerging Sciences

Lab Manual

Computer Organization and Assembly Language

Lab 06

Course Instructor	Ms. Aleena Ahmad
Instructor(s)	Haiqa Saman
	Raja Muzammil Muneer
Class	BCS-3E
Semester	Fall 2023

Fast School of Computing

FAST-NU, Lahore, Pakistan

Objectives

- Display Memory Formation
- Hello World in Assembly Language
- Screen Location Calculation

Contents

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

ACTIVITY 1:   (5 marks)

Write a program to print three different characters on the three different locations on the screen. All characters should have different colors. Play with changing background color, foreground color and blinking foreground.

ACTIVITY 2:   (5 marks)

Write a function **drawrect** that takes four parameters via the stack. The parameters are top, left, bottom, and right in this order. The function should display a rectangle on the screen using the characters " * ".

ACTIVITY 3:   (5 marks)

Write a program to print a string on the 5th row and 10th column of the screen. Take your first name as a string.

REFERENCES
- http://www.dosbox.com/download.php?main=1
- http://sourceforge.net/projects/nasm
- http://www.nasm.us/
- http://www.programmersheaven.com/download/21643/download.aspx (AFD)