Course:	**COAL**	**Code:**	**EL213**
Program:	**BS (Computer Science)**	**Semester:**	**Fall 2018**
Duration:	**150 minutes**	**T. Marks:**	**60**
Date:	**Tuesday 08-1-2019**	**Weight**	**40**
Section:		**Page(s):**	**1**
Exam:	**Lab final**		

Instructions/Notes:

- Use of the internet, notes, codes, lab manuals, and flash drives is strictly prohibited.
- You are only allowed to use the soft copy of book.
- Plagiarism will result in **F** grade in lab.
- Submission path: Section-X (here X will be your section A or B or C)
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Question # 1: 60 marks

Consider the multi-tasking kernel 11.2 for this question.
Your kernel initializes 10 tasks (from 11.2) when it starts. Make changes to the kernel so that it can vary the degree the of multitasking using the number keys from 0 to 9. The degree of multitasking is the number of the threads the kernel should multitask when a certain number key is pressed.
If 0 is pressed, the kernel multi tasks between task 0 and task 1.
If 1 is pressed, the kernel multitasks between task 0, task 1, task 2.
If 2 is pressed the kernel multitasks between task 0, task 1, task 2 and task3 and so on.
The input from the keyboard can come in at random times, which means the user can press the number key 2 few seconds after pressing the number key 5.

Question # 2: 60 marks

There is a label named 'StdRcd' that contains information about students and their marks. The array begins with an integer. This integer tells us the number of students whose record is stored in the label. Following this integer, we have the batch and then the roll number. Then there is a number which tells us how many assignments the first student submitted followed by the marks. Finally, the list of marks (for the first student). Then the array has the batch and then the roll number of the second student followed by the number of assignments he/she submitted and so on. All the information is space separated.
StdRcd: dw'3 17 1234 3 5 8 10 17 4012 2 7 6 15 4319 1 3'
Your task is to write an assembly program that'll first take as an input the number of the student in the list (first, second or third) and then inputs the assignment number of that student. You have to display the respective student's roll number followed by the respective assignment's marks. If the required record doesn't exist, show an error message on screen.
Hint: Think about the built-in functions from book.
Sample Input 1
Enter student Number: first
Enter Assignment number: 2
Sample Output 1:
Student roll no: 1234
Marks in assignment: 8

Sample Input 2
Enter student Number: third
Enter Assignment number: 3
Sample Output 2:
Student roll no: 4319
Marks in assignment: Does not exist!!!
Use INT16h for input. (INT 16h returns the SCAN code in ‘ah’ and ASCII code in ‘al’)