**DEPARTMENT OF COMPUTER & SOFTWARE ENGINEERING**

**COLLEGE OF E&ME, NUST, RAWALPINDI**

**Microprocessor and Microcontroller Based Design**

**Assignment 1**

**SUBMITTED TO:**

**Dr Taimoor Zahid**

**SUBMITTED BY:**

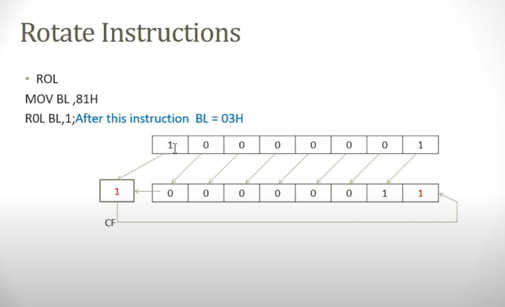
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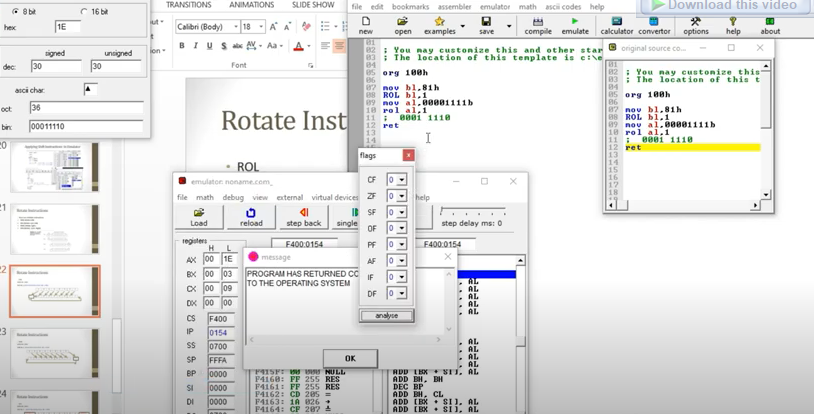
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**DE-42 (C&SE)-A**

**Submission Date: 30/10/2022**

Assignment 11. Explain/Elaborate the difference with example for thefollowing instruction sets:a. Shift Instructions(SHL, SRL, SAL, SAR)b. Rotate Instructions(ROL, ROR, RCL ,RCR)2. Write a code/program in EMU-8086 that should be able toperform the above instructions.3. Notice the Data and segment register values (binary window)for each instruction and write them down.4. Notice the FLAG register value and write them down.

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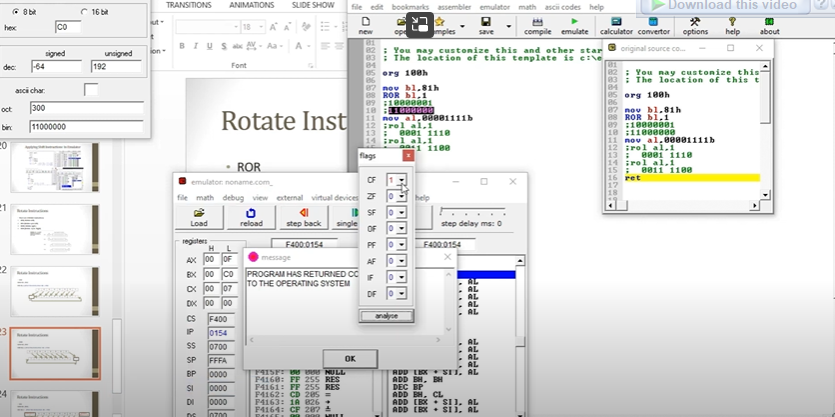
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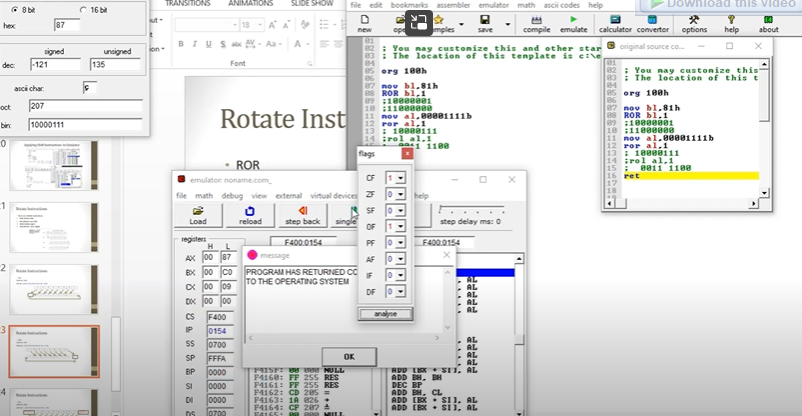
**Graphical user interface, application

Description automatically generated**

Diagram

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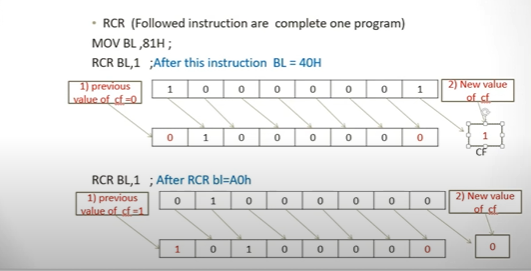


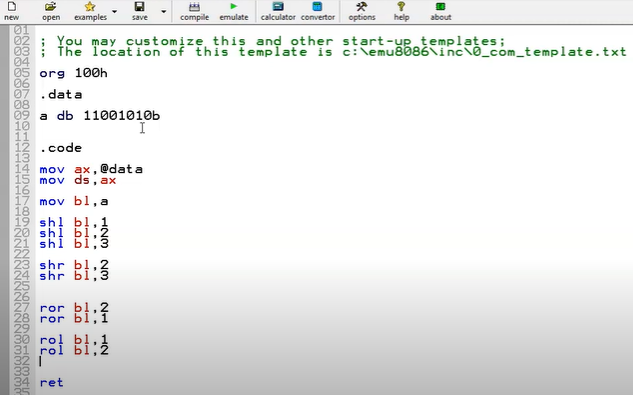
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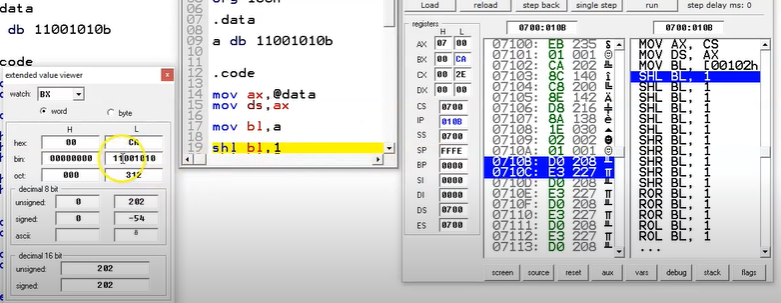
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Shift 1



Shift 2

Graphical user interface, application, Word

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Graphical user interface, application

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Shift 3

Graphical user interface, text, application

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Shr bl 2

Graphical user interface, application

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Shr bl 3

Graphical user interface, text, application

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Ror bl 2

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Ror bl 1

Graphical user interface, text, application

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Rol bl 1

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Graphical user interface, application

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