Microcomputers Chapter 3 Labs Part1

1. **Objective: To understand the MOV COPY AND LOAD operations**
    a. Create 3 labeled registers REG1,REG2, REG3
    b. Create a label to store a literal value (Ex: BYTE)
    c. Copy that value to the WReg
    d. Copy the literal value to REG1
    e. Using MOVFF copy the value in REG1 to REG2
    f. Using the MOVFF copy the value from REG2, to REG3
    g. Explain your results including where any of the initial values changed, which instruction(s) took more than one clock cycle
    h. Save your code as Move_Literal_YourName.asm
2. **Objective**: **To understand the ADDLW and the ADDWF functions**
    a. Copy the literal value 5 into the WREG
    b. Add the literal value 5 to the WREG
    c. Copy the value to Register 0
    d. Name the file ADD_TWO_Your Name.asm and add comments
3. **Objective: To understand the how to ADD, Copy, and store results in labeled registers**
    a. Create 2 labeled literal values called BYTE1 and BYTE2
    b. Create 3 labeled registers to store the values
    c. Copy the BYTE1 into the WREG
    d. Copy BYTE1 from WREG to your first labeled register
    e. ADDLW BYTE2
    f. Copy results to your second labeled register
4. **Objective: To understand the AND function**
    a. Using the PIC18F simulator logically AND the literal values 5 and 3 store the result in Reg0
    b. In the same file logically AND the literal values 2 and 10 and save them in Reg1
    c. Save the file as AndYourName and run the code
    d. Explain your results and Add comments to your code
5. **Objective: To understand the XOR function**
    a. Using the PIC18F simulator logically XOR the literal values 5 and 3 and store the result in Reg0
    b. In the same file logically XOR the literal values 2 and 10 and save them in Reg1
    c. Save the file as XORYourName and run the code
    d. Explain your results and Add comments to your code
6. **Objective: To Understand MULTWF function**
    a. Store literal value 2 in W reg
    b. Copy value to Reg0
    c. Store literal value 3 in W reg
    d. Copy value to Reg1
    e. Multiply values using ~~MULTWF~~ MULWF
    f. Copy values from PRODL to Reg2
    g. Increment INCF Reg0 and MULTWF Reg1 Store results in REG4
    h. Save the file as MultiplyAndIncrmententYourName
    i. Add comments