Microcontroller

AT89C51RD2 For Keil µVision 4
Atmel

* Keil µ Vision 3 (Exp 1, 2, 3, 4)

Project → New project → Memory (Write) → Philips → P89V51RD2 → Yes → File → New → Write code → Save
→ Sub/Add .c (Write) → Source Grp 1 (right click) → Select the file → Add → Close → Build → Debug
→ Start Debug → OK (Step into) → Peripherals → I/O Ports → Port 1
Whatever it is in the code select that port

Exp-2

Target 1 (right click) → Options for Target 1 → O/P → Tick on create HEX file → OK → Save → Build
→ Nuvoton → COM1 → W78E052D
ISP by COM Port → COM1, W78E052D → Load File

* MP Lab (Exp 5, 6)

1) file → New → Write code → Save as → Create new folder → Save the file (.c) in created folder
2) Click on project → Project wizard → Next → Select PIC8F4550 → Check library → Next → Create new file in previous folder → Add old file → Finish
3) Project → Built options → Project
Include search path → h
Library search path → lib
Linker script search path → LKR → OK
4) Project → Make
Hardware join
5) Debugger → Select → None
Debugger → Select → Pickit 2
Programmer → Pickit 2
Run the program

* Proteus Software (Exp-7, 8, 9)

1) Open proteus
2) Click on new project
3) Give name to the project → Name
4) Click on Create a schematic from the selected template → Design Template (Default) → Next
5) Click on Do not create a PCB layout → Next
6) Click on NO firmware project → Next → Finish
7) Select the components from P as required and select GND and Power from TERMINAL MODE (8th posit'n on left side)
8) Create hex using Keil software and burn in microcontroller → Double click on microcontroller and select hex file which is created.

Exp-7 LCD Interfacing with 8051
Components: AT89C51RD2 Microcontroller, LCD (LM016L), Crystal Oscillator, Capacitor (30pF-2, 10μF-1), Resistor (8.2K-1, 10K-11), Push Button (SPST)

Exp-8 7 Segment Display
Components: AT89C51RD2 Microcontroller, 7 segment Display (7seg-MPX1-CC), Crystal Oscillator, Capacitor (30pF-2, 10μF-1), Resistor (10K-1, 100 ohm-8), Push Button (SPST)

Exp-9 DC Motor
Components: AT89C51RD2 Microcontroller, L293D (Motor Driver), DC Motor (Simple DC Motor Model), Crystal Oscillator, Capacitor (30pF-2, 10μF-1), Resistor (10K-1), Push Button (SPST), Resistor (NTSA0XR502, NTC)