## **COMP2611: Computer Organization**

**MIPS** programming

- □ You will learn the following in this lab:
  - □ MIPS programming by practicing it in Mars.

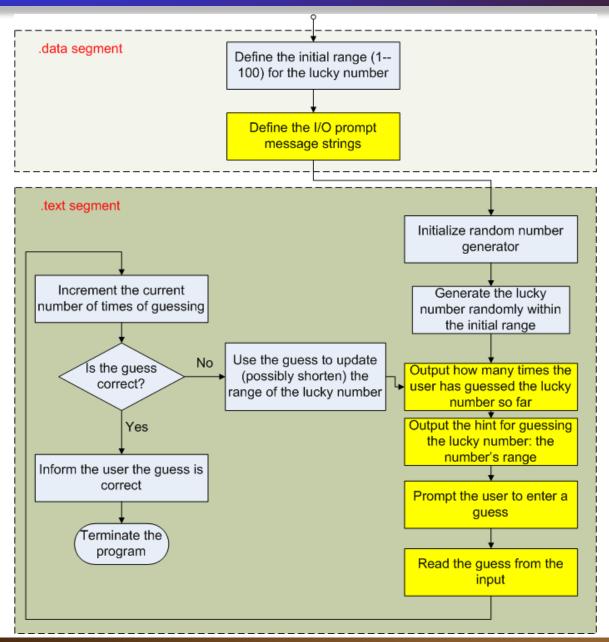
## The number guessing game

- □ Complete the program code of <u>guessingGame.s</u> by following the comments on the code.
  - □ The program picks a lucky number randomly from the interval 1 to 100. It then prompts the user to guess the number by telling him/her this interval as a hint.
  - ☐ If the input guess is correct, the program tells the user and then terminates.
  - □ Otherwise, the user's guess will be used to update (shorten) the interval as the hint for the user's next guess (until a guess is correct).
  - ☐ The number of guesses the user has made so far should also be displayed (until a correct guess is made).
  - □ The program code for updating the number interval as the hint has already been completed. You just need to complete the other syscall-related codes (as suggested by the code comments), e.g., I/O syscalls.

## The number guessing game

□ Follow the comments on the code to complete the program. The program tasks to be completed are also highlighted in yellow in the flow chart on the next page.

## **Program flow**



- You have learnt:
  - □ MIPS programming for the number guessing game in MARS.