

# COEN 10

## Lab 5

# Lab 5 – Multiplication Game

- ❖ You will create a multiplication game
- ❖ How it works
  - ◆ The game gives two random numbers
  - ◆ The user gives the multiplication
  - ◆ The game checks the answer and output the result
  - ◆ The game repeats for 10 times
  - ◆ At the end the game shows the user the score in percentage.

# Lab 5 – Multiplication Game

## ❖ You will C in Linux

### ◆ Use your Linux account

- The home directory
- You don't need to do this on the web server

### ◆ Edit the program using vi in the terminal

- The program needs to be a ".c" file

### ◆ Compile with gcc

gcc name.c

### ◆ Execute

./a.out

# Lab 5 – Multiplication Game

- ❖ Write a main function
  - ◆ Which executes 10 times
  - ◆ Each time generates 2 numbers and shows to the user (printf)
  - ◆ Reads the answer (scanf)
  - ◆ Checks the result
  - ◆ Counts the number of correct answers
  - ◆ After 10 iterations, shows the user the score and returns

# Lab 5 – Multiplication Game

## ❖ Functions

- ◆ `scanf ( )`
- ◆ `printf ( )`
- ◆ `rand ( )`
  - returns a big number
  - to generate a number between 0 and 12  
`number = rand ( ) % 13;`
- ◆ **to seed the random function → `srand ( )`**
  - Use the time as a seed to make it more random  
`srand ((int) time (NULL));`

# Lab 5 – Multiplication Game

## ❖ When you are done

### ◆ Demo

- Play the game on the terminal to the TA

### ◆ Submit

- Print and submit the source code to the TA
- Don't forget to put the following info on the top:
  - Name
  - COEN 10 teacher
  - Lab section
  - Lab #