

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));`

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❖ 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 #