CIS2107
Computer Systems & Low-Level Programming

Lab09. Manual

Lab 8: Manual

- Upload **manual.c** file to Canvas
  - *Test on* `cis-linux2` *server !!!!*

- Comments at top of the file:
  - Name, Date, Course
  - Homework number (Lab 8 Manual)
  - Statement of problem

Lab 8: Manual

- ➔ Update the .c file provided on Canvas
- ➔ Do NOT change function names or arguments
- ➔ Use the provided main for testing

1.upperLower

➔ TAKES IN: “This iS A Test”

➔ PRINTS: “THIS IS A TEST” “this is a test”

2. convertStrtoInt

➔ TAKES IN: “3” “4” “5” “6”

➔ RETURNS: 18

3. convertStrtoFloat

➔ TAKES IN: “3.5” “4.5” “5.5” “6.5”

➔ RETURNS: 20

4. compareStr

➔ TAKES IN: “Test1” “Test2”

➔ PRINTS: “Test1 < Test2”

5. comparePartialStr

➔ TAKES IN: “Test1”, “Test2”, “4”

➔ PRINTS: “Comparison of first 4 chars: Test1 = Test2”

6. randomize

TIPS:

- ➔ Create 4 arrays of pointers (Strings)
- ➔ `char* articles = { “A”, “An”, ... }`
- ➔ See next slide for random number generation
- ➔ MAKE SURE: Sentences begin with capital letter and end with period

Random Number Generation

```
#include <time.h>

#define RAND_MIN 0

#define RAND_MAX 100

srand((unsigned)time(NULL)); //only need to call once

rand() % (RAND_MAX+1)+ RAND_MIN;
```

7. tokenizeTelNum

➔ TAKES IN: “(267) 436-6281”

➔ PRINTS(NOTE: it’s okay just to print instead of return): “267 436628”

8. reverse

➔ TAKES IN: “Hello world”

➔ PRINTS: “world Hello”

9. countSubstr

➔ TAKES IN: “helloworldworld” “world”

➔ RETURNS: 2

10. countChar

➔ TAKES IN: “helloworldworld” “w”

➔ RETURNS: 2

11. countAlpha

- ➔ TAKES IN: “Hello it’s me.”
- ➔ PRINTS: table with each letter in the alphabet and how many times it occurs
  - A,a | 0
  - B,b | 0
  - ...

12. countWords

➔ TAKES IN: `“hello world!”`

➔ RETURNS: `2`

13. startsWithB

- TAKES IN: `char * series[] = {“bored”, “hello”, “Brother”, “manual”, “bothered”}`
- PRINTS: `“bored brother bothered”`

- NOTE: Change function to take in size of `*string[]`
- MAIN: `size = sizeof(series) / sizeof(series[0])`
- FUNCTION PROTOTYPE: `void startsWithB(char *string[],int size) {}`

14. endsWithed

- TAKES IN: `char * series[] = {“bored”, “hello”, “Brother”, “manual”, “bothered”}`
- PRINTS: `“bored bothered”`

- NOTE: Change function to take in size of *string[]

- MAIN: `size = sizeof(series) / sizeof(series[0])`

- FUNCTION PROTOTYPE: `void endsWithed(char *string[], int size) {}`

Lab 8 Checklist

- Did I comment out any of the function calls in main during testing?
  - *If so, please uncomment :)*

- Does my program compile and run on the **`cis-linux2`** server?