CIS2107
Computer Systems & Low-Level Programming

Lab08. 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

➜ <mark>MAKE SURE:</mark> Sentences begin with capital letter and end with period

Random Number Generation

```c
#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?