

Instituto Tecnológico de Costa Rica

Sede Cartago

Escuela de Computación

Estructuras de Datos

Ejercicios sobre primer resumen

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```
#include <stdlib.h>
```

```
main()
```

```
printf(" 1-1: Errores en hola mundo al dejar partes del codigo sin hacer\n\n" );
```

```
printf("\t-----\n\n");
```

```
printf(" 1-2: Experiment to find out what happens when printf's argument string contains '/c',  
where c is some character not listed above.\n" );
```

```
printf("\t\t Se ignora el backslash y se imprimir la c junto con el resto de texto\n\n");
```

```
printf("\t-----\n\n");
```

```
printf(" 1-3: Agregar un titulo a la tabla\n" );
```

```
printf("\t\t-----Tabla de Conversion de Fahrenheit a Celsius-----\n");
```

```
int fahr, celsius;
```

```
int lower, upper, step;
```

```
lower = 0;
```

```
upper = 300;
```

```
step = 20;
```

```
fahr = lower;
```

```
while (fahr <= upper) {
```

```
    celsius = 5 * (fahr-32) / 9;
```

```
    printf("%f\t%f\n", fahr, celsius);
```

```
    fahr = fahr + step;
```

```
printf("\t-----\n\n");
```

```
printf(" 1-4: Write a program to print the corresponding Celsius to Fahrenheit table.\n\n");
```

```
celsius=0;
```

```
while (celsius <= upper) {
```

```
    fahr = (9*(celsius)/5)+32;
```

```
    printf("%3.0f %6.1f \n", celsius, fahr);
```

```
    celsius = celsius + step;}
```

```
printf("\t-----\n\n");
```

```
printf(" 1-5: Modify the temperature conversion program to print the table in reverse order, that  
is from 300 degrees to 0.\n\n");
```

```
fahr=upper;
```

```
while (fahr >= lower) {
```

```
    celsius = 5 * (fahr-32) / 9;
```

```
    printf("%f\t%f\n", fahr, celsius);
```

```
    fahr = fahr - step;}
```

```
printf("\t-----\n\n");
```

```
printf(" 1-6/1-7: Verify that the expression getchar() != EOF is 0 or 1./Write a program to print  
the value of EOF.\n\n");
```

```
printf("EOF == %d\n", EOF);
```

```

printf("EOF == %d\n", EOF);

printf("\t-----\n\n");
printf("1-8: Write a program to count blanks, tabs, and newlines.\n\n");

char c;
unsigned int n=0, tab=0, space=0, nl=0, a=0;
while((c = getchar()) != EOF){
    n++;
    if (c=='\t') tab++;
    if (c==' ') space++;
    if (c=='\n') nl++;
}
a=space+tab+nl;
n=n-a;
printf("Se leyeron %d caracteres, %d espacios, %d tabs y %d lineas ! \n", n, space, tab, nl);

printf("\t-----\n\n");
printf("1-10: Write a program to copy its input to its output, replacing each tab by backslash t ,
each backspace by backslash b , and each backslash by double backslash . This makes tabs and
backspaces visible in an unambiguous way\n\n");

while((c = getchar()) != EOF){
    if (c=='\t') printf("/t");
    if (c=='\b') printf("/b");
    putchar(c);
}

printf("\t-----\n\n");
printf("1-11: How would you test the word count program? What kinds of input are most likely to
uncover bugs if there are any?\n\n");
printf("Utilizaria palabras pegadas y palabras separadas por varios espacion o varias tabulaciones
a la vez, puesto que eso es lo que toma en cuenta el programa para contar.\n");

printf("\t-----\n\n");
printf("1-12: Write a program that prints its input one word per line.\n\n");

while ((c=getchar())!= EOF){
    if (c!= ' ') c=putchar(c) ;
    if (c==' ') printf("\n");
}

}

```

luis@luis-G551JK:~\$ cd Desktop

luis@luis-G551JK:~/Desktop\$./tarea1

1-1: Errores en hola mundo al dejar partes del codigo sin hacer

1-2: Experiment to find out what happens when prints 's argument string contains '/c', where c is some character not listed above.

Se ignora el backslash y se imprimir la c junto con el resto de texto

1-3: Agregar un titulo a la tabla

-----Tabla de Conversion de Fahrenheit a Celsius-----

-

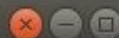
0.000000	-17.777779
20.000000	-6.666667
40.000000	4.444445
60.000000	15.555555
80.000000	26.666666
100.000000	37.777779
120.000000	48.888889
140.000000	60.000000
160.000000	71.111115
180.000000	82.222221
200.000000	93.333336
220.000000	104.444443
240.000000	115.555557
260.000000	126.666664
280.000000	137.777771
300.000000	148.888885

 1-4: Write a program to print the corresponding Celsius to Fahrenheit table.

0	32.0
20	68.0
40	104.0
60	140.0
80	176.0
100	212.0
120	248.0
140	284.0
160	320.0
180	356.0
200	392.0
220	428.0
240	464.0
260	500.0
280	536.0
300	572.0

 1-5: Modify the temperature conversion program to print the table in reverse order, that is, from 300 degrees to 0.

300.000000	148.888885
280.000000	137.777771
260.000000	126.666664
240.000000	115.555557
220.000000	104.444443
200.000000	93.333336
180.000000	82.222221
160.000000	71.111115
140.000000	60.000000
120.000000	48.888889
100.000000	37.777779
80.000000	26.666666
60.000000	15.555555
40.000000	4.444445
20.000000	-6.666667
0.000000	-17.777779



1-6/1-7: Verify that the expression `getchar() != EOF` is 0 or 1./Write a program to print the value of EOF.

EOF == -1

1-8: Write a program to count blanks, tabs, and newlines.

prueba del ejercicio

uno

punto

ocho

Se leyeron 30 caracteres, 2 espacios, 4 tabs y 4 lineas !

1-10: Write a program to copy its input to its output, replacing each tab by backslash t , each backspace by backslash b , and each backslash by double backslash . This makes tabs and backspaces visible in an unambiguous way

prueba del ejercicio

uno

punto 10

prueba/b del/b ejercicio/t

/t

uno/t

punto/b 10

1-11: How would you test the word count program? What kinds of input are most likely to uncover bugs if there are any?

Utilizaria palabras pegadas y palabras separadas por varios espacios o varias tabulaciones a la vez, puesto que eso es lo que toma en cuenta el programa para contar.

1-12: Write a program that prints its input one word per line.



Terminal File Edit View Search Terminal Help

1-12: Write a program that prints its input one word per line.

Prueba del ejercicio uno punto doce

Prueba

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