



FUNDAMINETOS DE PROGRAMACION

NRC: 200274 11:00AM-12:55PM

PABLO ITZULT RIVERA MARISCAL 220089903

TRABAJO 15- ESTRUCTURA DE CONTROL "HACER-MIENTRAS" O "DO-WHILE"

23/03/2024

Practica 24 Serie del 1 al 10 en Do-while:

- Pseudocódigo:

Inicio

Entero num \leftarrow 1

Hacer

Inicio

Imprimir ("num")

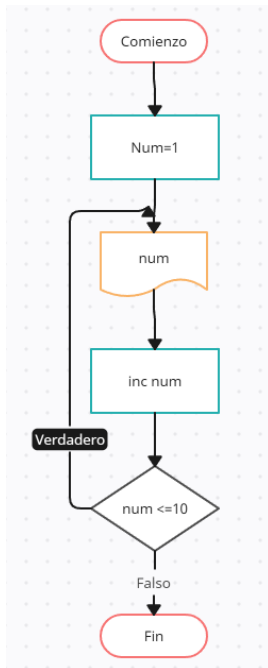
Inc num

Fin

Mientras (num \leq 10);

Fin

- Diagrama:



- Código en C:

//Practica 24 Serie del 1 al 10 en Do-while

```
#include <stdio.h>
```

```
#define lim 10
```

```
int
```

```
main (){
```

```
int num = 1;
```

```
do
```

```
{ printf ("%d\n", num);
```

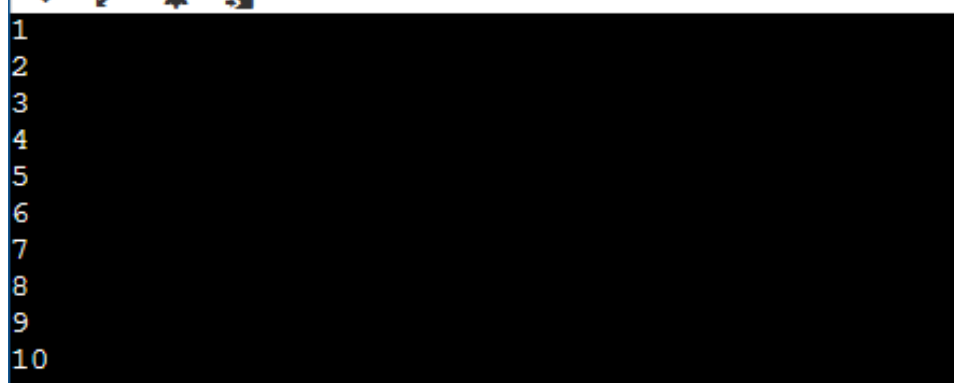
```
num++;
```

```
}while (num <= lim);
```

```
return 0;
```

```
}
```

```
1 //Practica 24 Serie del 1 al 10 en Do-while
2 #include <stdio.h>
3 #define lim 10
4 int
5 main () {
6     int num = 1;
7     do
8     { printf ("%d\n", num);
9       num++;
10    } while (num <= lim);
11    return 0;
12 }
```



Practica 25 Factorial en Do-while:

- Pseudocódigo:

Inicio

Entero base, cont=1,num;

Imprimir calculadora de factoriales

Imprimir dime el numero

Leer base

Num = base

Hacer

Cont *=

Imprimir (num “es su factorial siguiente”)

Imprimir (cont “es el productor con el anterior”)

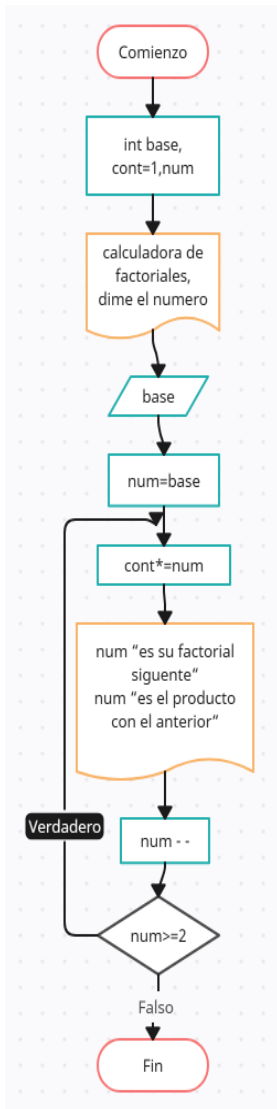
Inc num-

Fin

Mientras (num>=2)

Fin

- Diagrama de flujo:



- Código en C:

//Practica 25 factorial en Do-while

```
#include <stdio.h>
```

```
Int main ()
```

```
{ int base, cont = 1, num;
```

```
printf ("~~~~~\n");
```

```
printf ("calculadora de factoriales\n");
printf ("Dime el numero\n");
scanf ("%d", &base);
printf ("~~~~~\n");
num = base;
do{
    cont *= num;
    printf ("%d es su factorial siguiente\n", num);
    printf ("%d es el producto con el anterior\n", cont);
    num--;
}while (num >= 2);
printf ("~~~~~\n");
return 0;
}
```

```

1 //Practica 25 factorial en Do-while
2 #include <stdio.h>
3 int main ()
4 { int base, cont = 1, num;
5 printf ("~~~~~\n");
6 printf ("calculadora de factoriales\n");
7 printf ("Dime el numero\n");
8 scanf ("%d", &base);
9 printf ("~~~~~\n");
10 num = base;
11 do{
12     cont *= num;
13     printf ("%d es su factorial siguiente\n", num);
14     printf ("%d es el producto con el anterior\n", cont);
15     num--;
16 }while (num >= 2);
17 printf ("~~~~~\n");
18 return 0;
19 }

```

```

~~~~~
calculadora de factoriales
Dime el numero
5
~~~~~
5 es su factorial siguiente
5 es el producto con el anterior
4 es su factorial siguiente
20 es el producto con el anterior
3 es su factorial siguiente
60 es el producto con el anterior
2 es su factorial siguiente
120 es el producto con el anterior
~~~~~

```

Practica 26 Tabla del 7 en Do-while:

- Pseudocódigo:

Inicio

Entero $\text{cont} \leftarrow 7$, base

Imprimir tabla del 7

Hacer

 Imprimir (cont "x" base "=" (cont*base))

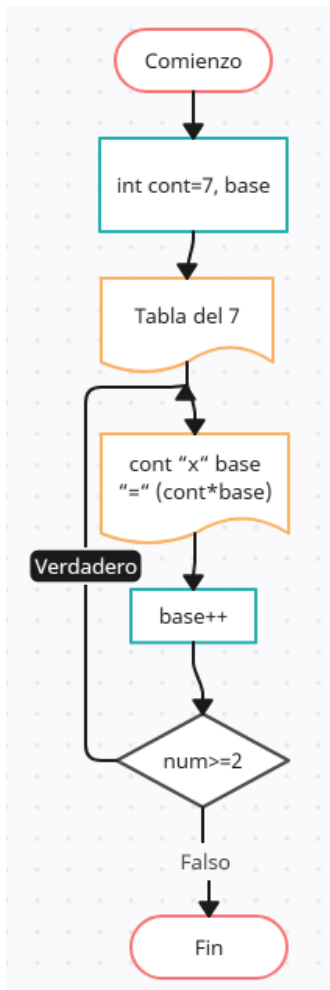
 Inc base

Fin

Mientras (base<=10);

Fin

- Diagrama de flujo:



- Código en C:

//Practica 26 Tabla del 7 en Do-while

```
#include <stdio.h>
```

```
int main ()
```

```
{int cont = 7, base;
```

```
printf ("~~~~~\n");
```

```
printf ("Tabla del 7\n");
```

```
do{
```

```
    printf ("%d x %d = %d\n ", cont, base, cont * base);
```

```
    base++;
```

```

        }while (base <= 10);

printf ("~~~~~\n");

return 0;

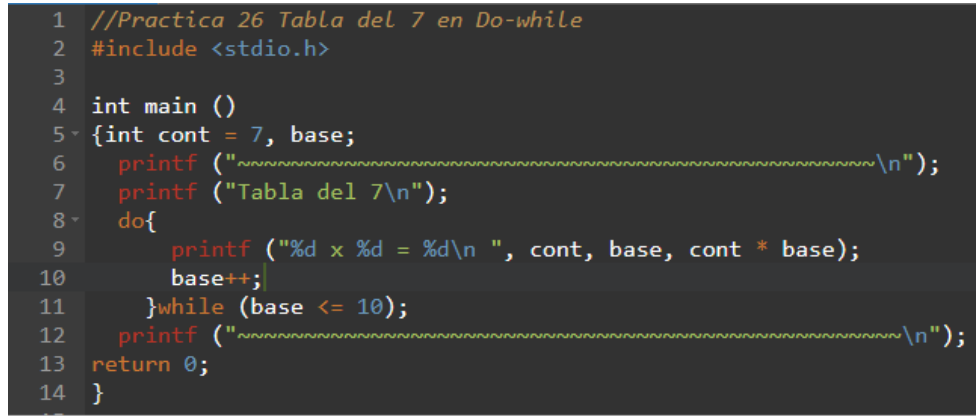
}

```

```

1 //Practica 26 Tabla del 7 en Do-while
2 #include <stdio.h>
3
4 int main ()
5 {int cont = 7, base;
6   printf ("~~~~~\n");
7   printf ("Tabla del 7\n");
8   do{
9     printf ("%d x %d = %d\n ", cont, base, cont * base);
10    base++;
11  }while (base <= 10);
12  printf ("~~~~~\n");
13  return 0;
14 }

```

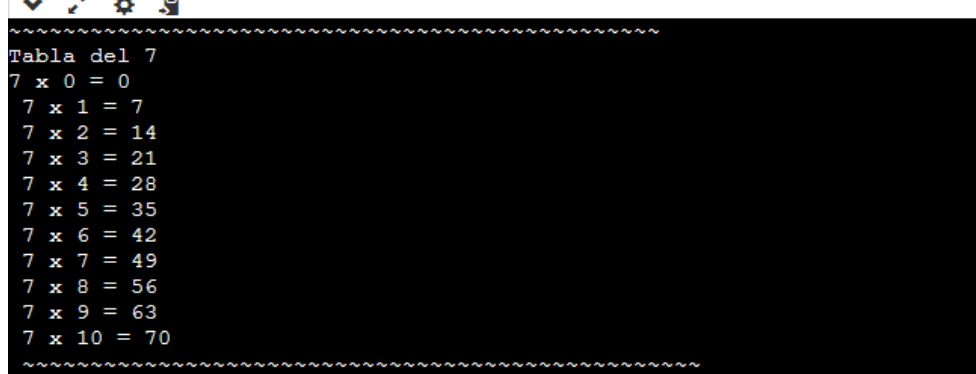


The screenshot shows a code editor with a dark background. The code is written in C and is for a program that prints the multiplication table for the number 7. The code includes a comment at the top, a header file inclusion, a main function, and a do-while loop that prints the multiplication results for base values from 0 to 10. The code is formatted with line numbers on the left and syntax highlighting.

```

~~~~~
Tabla del 7
7 x 0 = 0
7 x 1 = 7
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
7 x 8 = 56
7 x 9 = 63
7 x 10 = 70
~~~~~

```



The screenshot shows a terminal window with a dark background. The output of the program is displayed, showing the multiplication table for the number 7. The output starts with a line of tildes, followed by the text "Tabla del 7", and then a list of multiplication results for base values from 0 to 10. The output ends with another line of tildes.