

Nombre de la práctica	WHILE ESTRUCTURA DE REPETICIÓN			No.	4
Asignatura:	Métodos numéricos	Carrera:	Ingeniería en Sistemas Computacionales.	Duración de la práctica (Hrs)	
				Fecha:	20/Mar/24

Integrantes.	Matricula
1.-Fabiola Castañeda Mondragón	202223144

WHILE ESTRUCTURA DE REPETICIÓN

1.- Imprimir 3 veces la palabra hola:

```
C while.c > ...
  Click here to ask Blackbox to help you code faster
1  # include <stdio.h>
2
3  ∨ int main(){
4
5      int contador=0;
6  ∨  while (contador<3){
7      printf ("Hola \n");
8      contador++;
9      }
10     printf ("Fin \n");
11
12     return 0;
13 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NUMERICOS/6MARZO$ ./s
Hola
Hola
Hola
Fin
```

2.- Programa:

```
1  # include <stdio.h>
2
3  int main(){
4
5      int contador=5;
6      while (contador<3){
7          printf ("Hola \n");
8          contador++;
9      }
10     printf ("Fin \n");
11
12     return 0;
13 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NUMERICOS/6MARZO$ ./s
Fin
```

3.- Programa:

```
C while4.c > ...
  Click here to ask Blackbox to help you code faster
1  # include <stdio.h>
2
3  int main(){
4
5      int numero=1;
6      while (numero<=1000){
7          printf ("%d,", numero);
8          numero++;
9      }
10
11
12  return 0;
13 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$ ./s
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28
,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,5
3,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,
78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,
102,103,104,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,12
0,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,
139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,15
7,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,
176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,19
4,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,
213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,23
1,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,
250,251,252,253,254,255,256,257,258,259,260,261,262,263,264,265,266,267,26
8,269,270,271,272,273,274,275,276,277,278,279,280,281,282,283,284,285,286,
287,288,289,290,291,292,293,294,295,296,297,298,299,300,301,302,303,304,30
5,306,307,308,309,310,311,312,313,314,315,316,317,318,319,320,321,322,323,
324,325,326,327,328,329,330,331,332,333,334,335,336,337,338,339,340,341,34
```


...

```
694,695,696,697,698,699,700,701,702,703,704,705,706,707,708,709,710,711,712,713,714,715,716,717,718,719,720,721,722,723,724,725,726,727,728,729,730,731,732,733,734,735,736,737,738,739,740,741,742,743,744,745,746,747,748,749,750,751,752,753,754,755,756,757,758,759,760,761,762,763,764,765,766,767,768,769,770,771,772,773,774,775,776,777,778,779,780,781,782,783,784,785,786,787,788,789,790,791,792,793,794,795,796,797,798,799,800,801,802,803,804,805,806,807,808,809,810,811,812,813,814,815,816,817,818,819,820,821,822,823,824,825,826,827,828,829,830,831,832,833,834,835,836,837,838,839,840,841,842,843,844,845,846,847,848,849,850,851,852,853,854,855,856,857,858,859,860,861,862,863,864,865,866,867,868,869,870,871,872,873,874,875,876,877,878,879,880,881,882,883,884,885,886,887,888,889,890,891,892,893,894,895,896,897,898,899,900,901,902,903,904,905,906,907,908,909,910,911,912,913,914,915,916,917,918,919,920,921,922,923,924,925,926,927,928,929,930,931,932,933,934,935,936,937,938,939,940,941,942,943,944,945,946,947,948,949,950,951,952,953,954,955,956,957,958,959,960,961,962,963,964,965,966,967,968,969,970,971,972,973,974,975,976,977,978,979,980,981,982,983,984,985,986,987,988,989,990,991,992,993,994,995,996,997,998,999,1000,fabiola2004@fab
o fabiola2004@fabiola2004:~/Documentos/MÉTODOS NUMERICOS/6MAR: No hay notificación
```

4.-Imprimir los cuadrados y los cubos de los primeros quinientos números naturales:

```
C cubos.c > main()
  Click here to ask Blackbox to help you code faster
1  #include <stdio.h>
2
3  int main(){
4      int x=1;
5      while(x<=500){
6          printf ("%d,%d,%d" ,x,x*x,x*x*x);
7          printf("\n");
8          x++;
9      }
10     return 0;
11 }
```



Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$ ./s
1,1,1
2,4,8
3,9,27
4,16,64
5,25,125
6,36,216
7,49,343
8,64,512
9,81,729
10,100,1000
11,121,1331
12,144,1728
13,169,2197
14,196,2744
15,225,3375
16,256,4096
17,289,4913
```

...

```
485,235225,114084125
486,236196,114791256
487,237169,115501303
488,238144,116214272
489,239121,116930169
490,240100,117649000
491,241081,118370771
492,242064,119095488
493,243049,119823157
494,244036,120553784
495,245025,121287375
496,246016,122023936
497,247009,122763473
498,248004,123505992
499,249001,124251499
500,250000,125000000
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$ gcc c.
```

5.- Imprimir todos los números divisibles entre 3 mayores a 0 y menores a mil:

```
C divtres.c > main()
  Click here to ask Blackbox to help you code faster
1  #include <stdio.h>
2
3  int main() {
4      printf("Números divisibles entre 3 mayores que 0 y menores que mil:");
5      for (int i = 1; i < 1000; i++) {
6          if (i % 3 == 0) {
7              printf("%d\n", i);
8          }
9      }
10     return 0;
11 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NUMERICOS/6MARZO$ ./s
Números divisibles entre 3 mayores que 0 y menores que mil:
3
6
9
12
15
18
21
24
27
30
33
36
39
42
```

...

```
951
954
957
960
963
966
969
972
975
978
981
984
987
990
993
996
999
```

6.- Imprimir todos los números que son divisibles entre 2 y entre 7, mayores a 0 y menores a mil:

```
C divdos.c > main()
  Click here to ask Blackbox to help you code faster
1  #include <stdio.h>
2
3  int main() {
4      printf("Números divisibles entre 2 y entre 7:\n");
5      for(int i = 1; i < 1000; i++) {
6          if(i % 2 == 0 && i % 7 == 0) {
7              printf("%d\n", i);
8          }
9      }
10     return 0;
11 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$ ./s
Números divisibles entre 2 y entre 7:
14
28
42
56
70
84
98
112
126
140
154
168
182
```

...

```
770
784
798
812
826
840
854
868
882
896
910
924
938
952
966
980
994
```


7.- Escribir todos los enteros positivos menores que 100 omitiendo aquellos que son divisibles por 7:

```
enterosp.c > main()
  Click here to ask Blackbox to help you code faster
1  #include <stdio.h>
2
3  int main(){
4      int i = 1;
5
6      printf("Enteros positivos menores a 100 que no son divisibles
7
8      while(i < 100){
9          if(i % 7 !=0) {
10             printf("%d\n", i);
11         }
12         i++;
13     }
14     return 0;
15
16 }
```

Código ejecutado:

```
fabiola2004@fabiola2004:~/Documentos/MÉTODOS NUMÉRICOS/6MARZO$ ./s
Enteros positivos menores a 100 que no son divisibles entre 7:
1
2
3
4
5
6
8
9
10
11
12
13
15
16
17
```

...

```
80  
81  
82  
83  
85  
86  
87  
88  
89  
90  
92  
93  
94  
95  
96  
97  
99
```

8.- Programa:

```
C dowhile.c > main()  
💡 Click here to ask Blackbox to help you code faster  
1  #include <stdio.h>  
2  
3  int main(){  
4      int i=0;  
5      do{  
6          printf("valor de i= %d \n",i);  
7          i++;  
8      }while (i<3);  
9  
10     printf("Fin");  
11  
12 }
```

Código ejecutado:

```
● fabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$ ./s  
valor de i= 0  
valor de i= 1  
valor de i= 2  
○ Finfabiola2004@fabiola2004:~/Documentos/MÉTODOS NÚMERICOS/6MARZO$
```