

LECTURE 4 ASSIGNMENT

Sharah Michelle M. Tuando

1.)

```
1 // #1
2 #include <stdio.h>
3 int main(void)
4 {
5     int i;
6     i = 1;
7     while (i <= 128) {
8         printf("%d ", i);
9         i *= 2;
10    }
11    return 0;
12 }
13
```

Output: 1 2 4 8 16 32 64 128

```
"C:\Users\bbmun\OneDrive\Documents\UPV ...
1 2 4 8 16 32 64 128
Process returned 0 (0x0)   execution time : 18.538 s
Press any key to continue.
```

2.)

```
1 // #2
2 #include <stdio.h>
3 int main (void) {
4     int i;
5     i = 1;
6     //a
7     while (i < 10) {
8         printf("%d ", i);
9         i ++;
10    }
11    return 0;
12 }
13
```

```
"C:\Users\bbmun\OneDrive\Documents\UPV ...
1 2 3 4 5 6 7 8 9
Process returned 0 (0x0)   execution time : 1.890 s
Press any key to continue.
```

```
1 // #2
2 #include <stdio.h>
3 int main (void) {
4     int i;
5     i = 1;
6     //a
7     while (i < 10) {
8         printf("%d ", i);
9         i ++;
10    }
11    //b
12    for (i ; i < 10; i++) {
13        printf("%d ", i);
14    }
15    return 0;
16 }
17
```

```
"C:\Users\bbmun\OneDrive\Documents\UP...
1 2 3 4 5 6 7 8 9
Process returned 0 (0x0)   execution time : 1.879 s
Press any key to continue.
```

```
1 // #2
2 #include <stdio.h>
3 int main (void) {
4     int i;
5     i = 1;
6     //a
7     while (i < 10) {
8         printf("%d ", i);
9         i ++;
10    }
11    //b
12    for (i ; i < 10; i++) {
13        printf("%d ", i);
14    }
15    //c
16    do {
17        printf("%d ", i);
18        i ++;
19    } while (i < 10);
20    return 0;
21 }
22
```

```
"C:\Users\bbmun\OneDrive\Documents\UPV BSC...
1 2 3 4 5 6 7 8 9 10
Process returned 0 (0x0)   execution time : 1.903 s
Press any key to continue.
```

Answer: Statement C is not equivalent to the other two since it still returns number 10 while the first two statements return numbers 1 to 9 only

3.)

```
1 // #3
2 #include <stdio.h>
3 int main(void)
4 {
5     int i;
6     for (i = 1; i <= 128; i++) {
7         printf("%d ", i);
8         i *= 2;
9     }
10    return 0;
11 }
12
```

Output: 1 2 4 8 16 32 64 128

```
"C:\Users\bbmun\OneDrive\Documents\UPV BS...
1 2 4 8 16 32 64 128
Process returned 0 (0x0) execution time : 1.883 s
Press any key to continue.
```

4.)

```
1 // #4
2 #include <stdio.h>
3 int main ()
4 {
5     int exp = 0, prod = 0, n = 1, i = 0;
6     printf ("Please enter the value of exponent: ");
7     scanf ("%d", &exp);
8     printf ("\nTABLE OF POWERS OF TWO");
9     printf ("\n n    2 to the n");
10    printf ("\n=====");
11
12    for (i; i <= exp; i++) {
13        prod = n;
14        printf ("\n %d    %d", i, prod);
15        n *= 2;
16    }
17    printf ("\n=====");
18    return 0;
19 }
20
```

```
"C:\Users\bbmun\OneDrive\Documents\UPV BSCS-1 (2nd S...
Please enter the value of exponent: 5

TABLE OF POWERS OF TWO
n    2 to the n
=====
0    1
1    2
2    4
3    8
4    16
5    32
=====
Process returned 0 (0x0) execution time : 2.403 s
Press any key to continue.
```

5.)

```

1 // 88
2 #include<stdio.h>
3
4 int main(){
5     int start, days, i;;
6     char reply;
7
8     do
9     {
10         printf("Enter number of days in month: ");
11         scanf("%d", &days);
12
13         if(days >= 22 || days <= 0 || days <= 27)
14         {
15             printf("\nInvalid input!\n");
16             printf("\nNumbers 28 to 31 are only accepted!\n");
17             printf("\nWould you like to continue?\n");
18             printf("Please enter Y if yes, and N if no.\n\n");
19             scanf("%s", &reply);
20
21             if(reply=='N' || reply=='n')
22             {
23                 break;
24             }
25         }
26         else
27         {
28             printf("Enter the starting day of the week: ");
29             scanf("%d", &start);
30             for(i = 1; i < start; i++) {
31                 printf(" ");
32             }
33
34             for(i = 1; i <= days; i++) {
35                 printf("%2d ", i);
36                 if((i + start - 1)%7 == 0) {
37                     printf("\n");
38                 }
39             }
40
41             printf("\n\nWould you like to continue?\n");
42             printf("Please enter Y if yes, and N if no.\n\n");
43             scanf("%s", &reply);
44
45             if(reply=='N' || reply=='n')
46             {
47                 break;
48             }
49         }
50     }
51
52     while(reply=='Y' || reply=='y');
53
54     printf("\nThank you!");
55
56     return 0;
57 }
58
59

```

```

"C:\Users\bbmun\OneDrive\Documents\UPV BSCS-1 (2nd Sem)\C...
Enter number of days in month: 31
Enter the starting day of the week: 5
      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

Would you like to continue?
Please enter Y if yes, and N if no.

y
Enter number of days in month: 27

Invalid input!

Numbers 28 to 31 are only accepted!

Would you like to continue?
Please enter Y if yes, and N if no.

n

Thank you!
Process returned 0 (0x0)   execution time : 20.900 s
Press any key to continue.

```