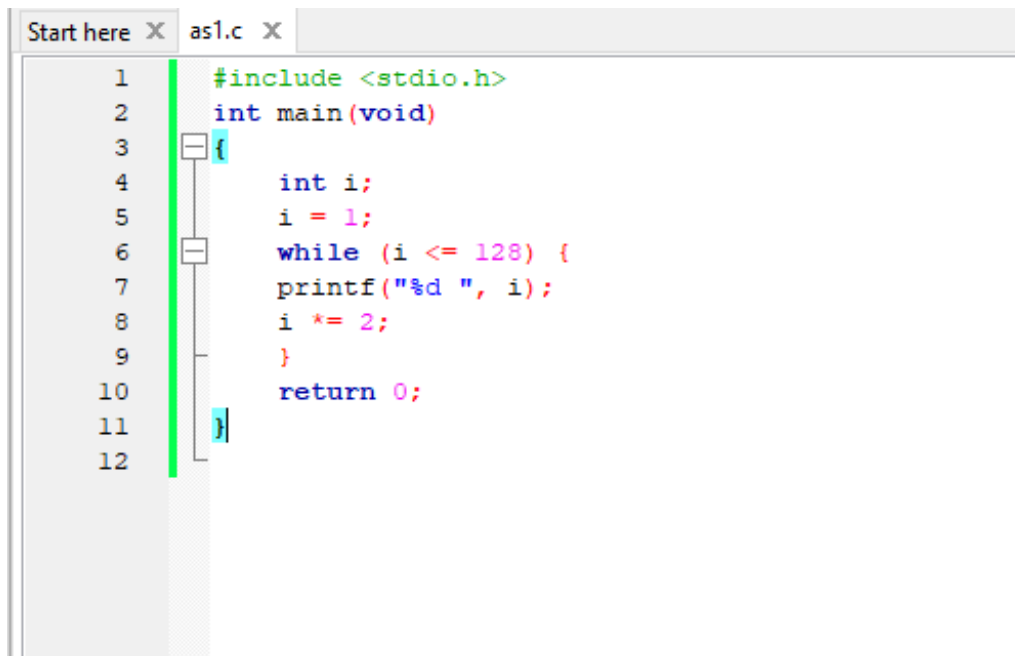
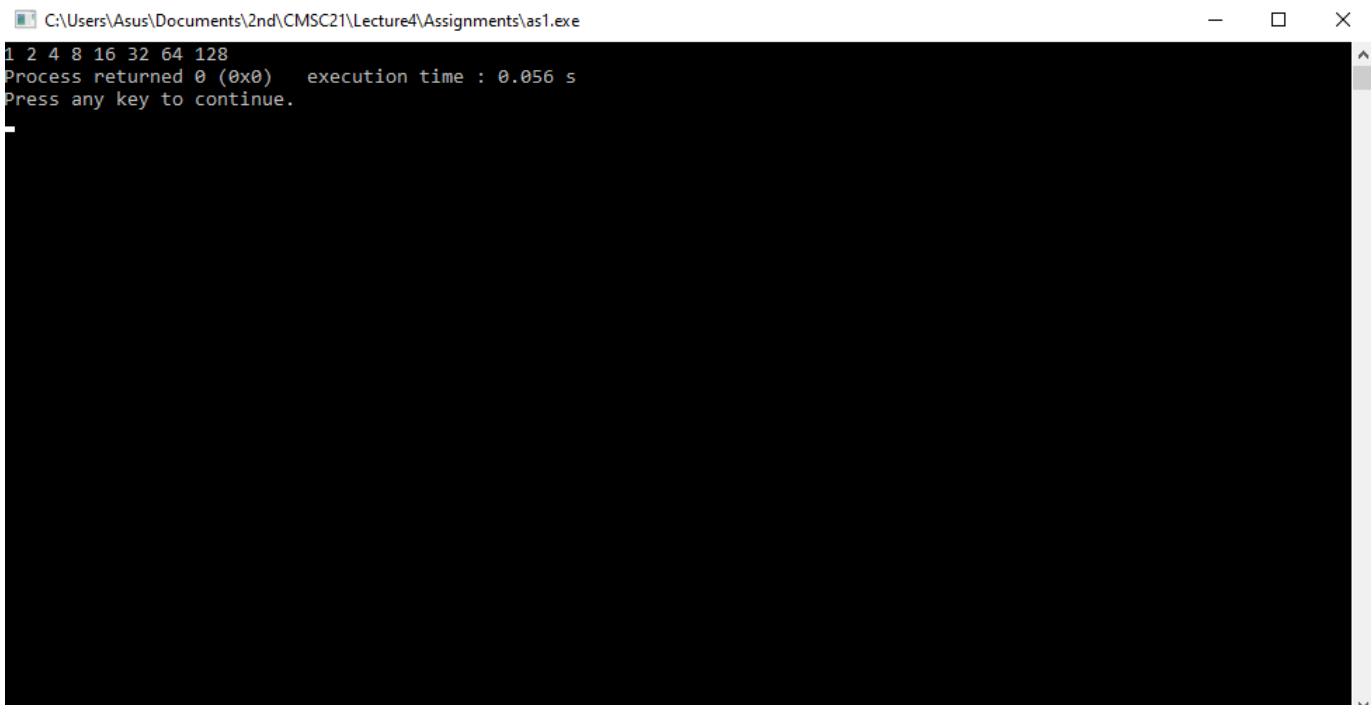


Lecture 4

1.

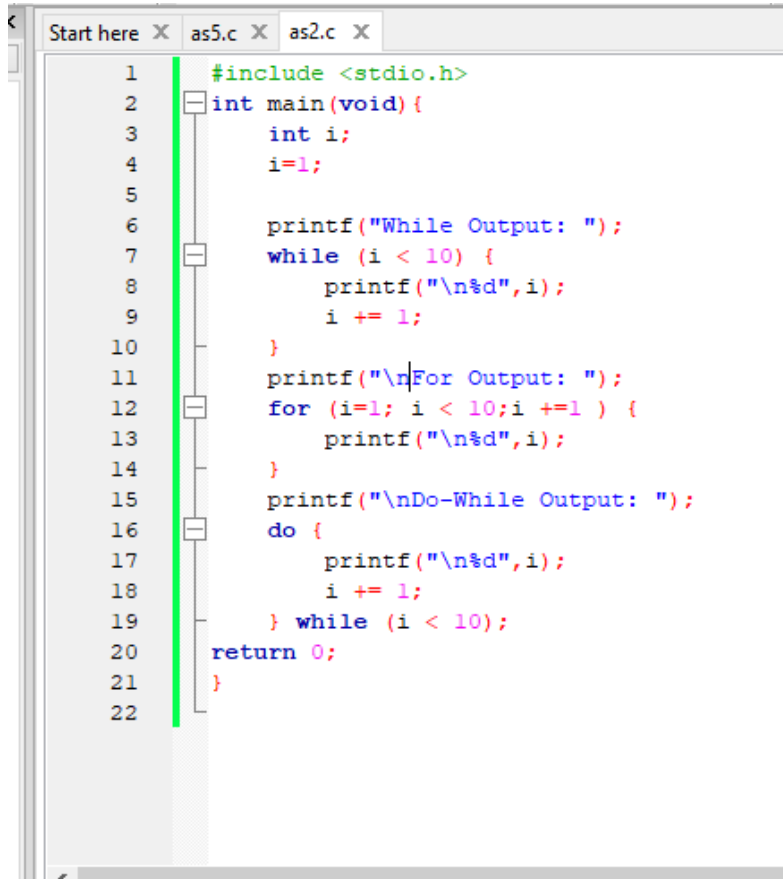


```
1  #include <stdio.h>
2  int main(void)
3  {
4      int i;
5      i = 1;
6      while (i <= 128) {
7          printf("%d ", i);
8          i *= 2;
9      }
10     return 0;
11 }
12
```

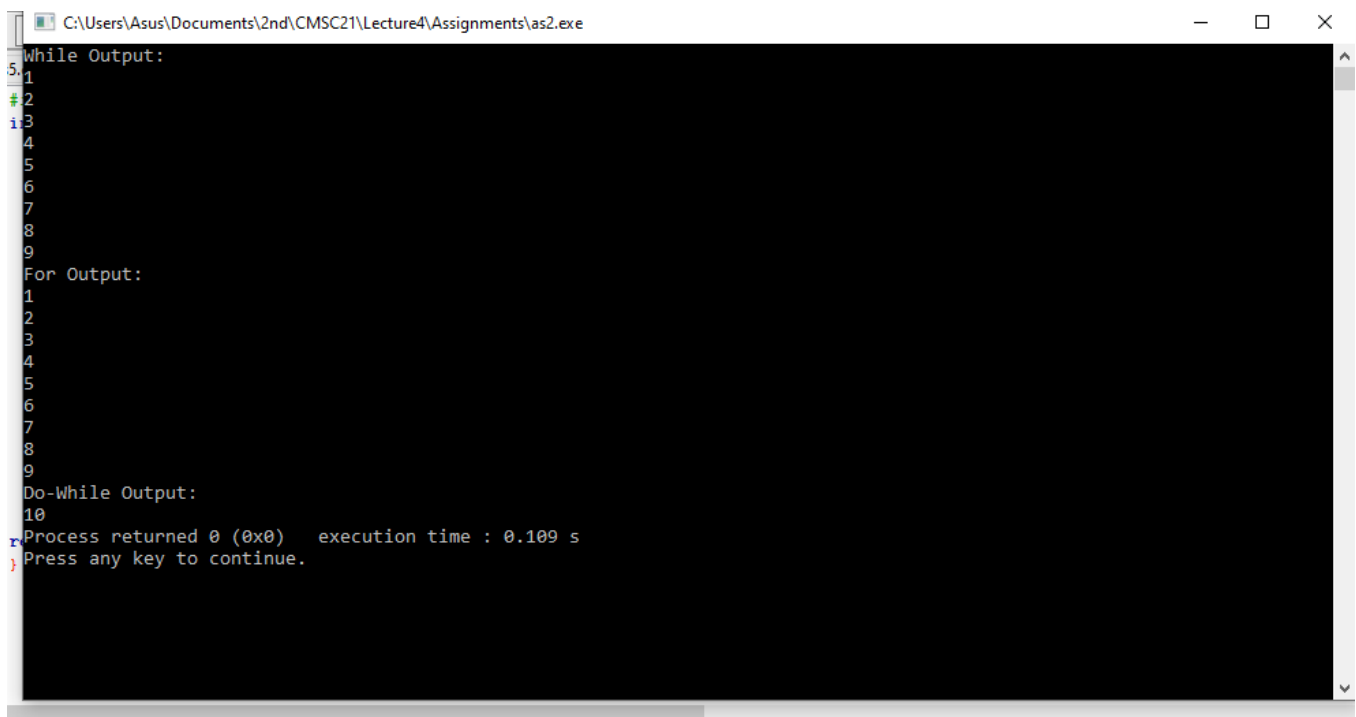


```
C:\Users\Asus\Documents\2nd\CMSC21\Lecture4\Assignments\as1.exe
1 2 4 8 16 32 64 128
Process returned 0 (0x0)   execution time : 0.056 s
Press any key to continue.
```

2. The do-while is the statement that is not equivalent to the other two since it produces a different and unique output.

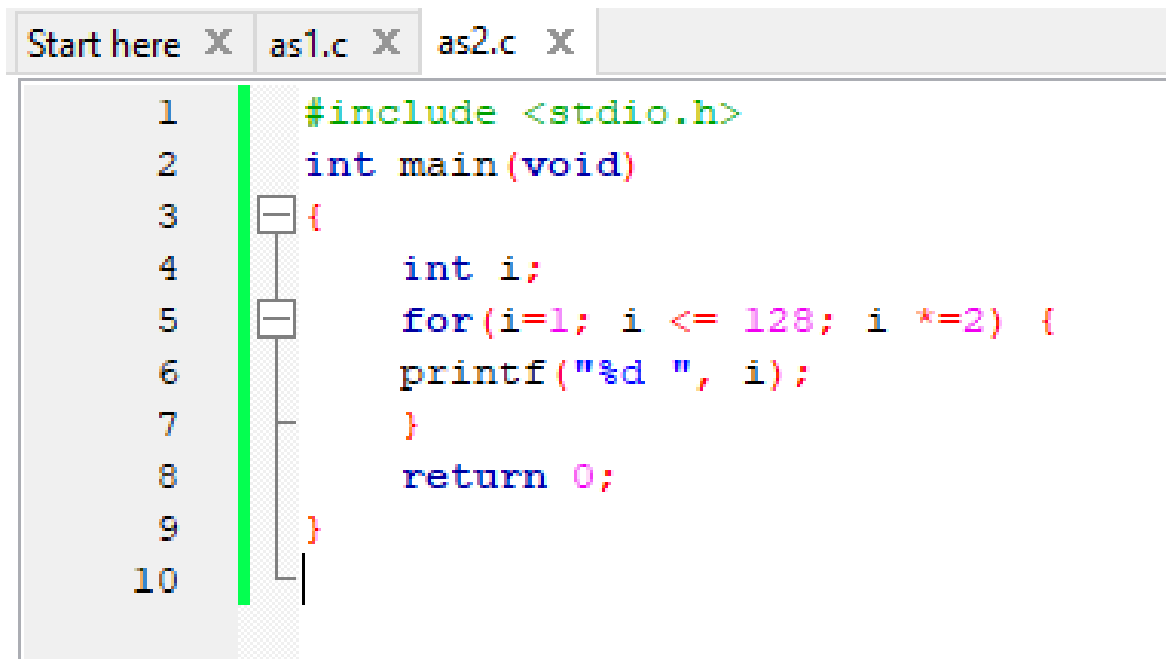


```
1  #include <stdio.h>
2  int main(void){
3      int i;
4      i=1;
5
6      printf("While Output: ");
7      while (i < 10) {
8          printf("\n%d",i);
9          i += 1;
10     }
11     printf("\nFor Output: ");
12     for (i=1; i < 10;i +=1 ) {
13         printf("\n%d",i);
14     }
15     printf("\nDo-While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

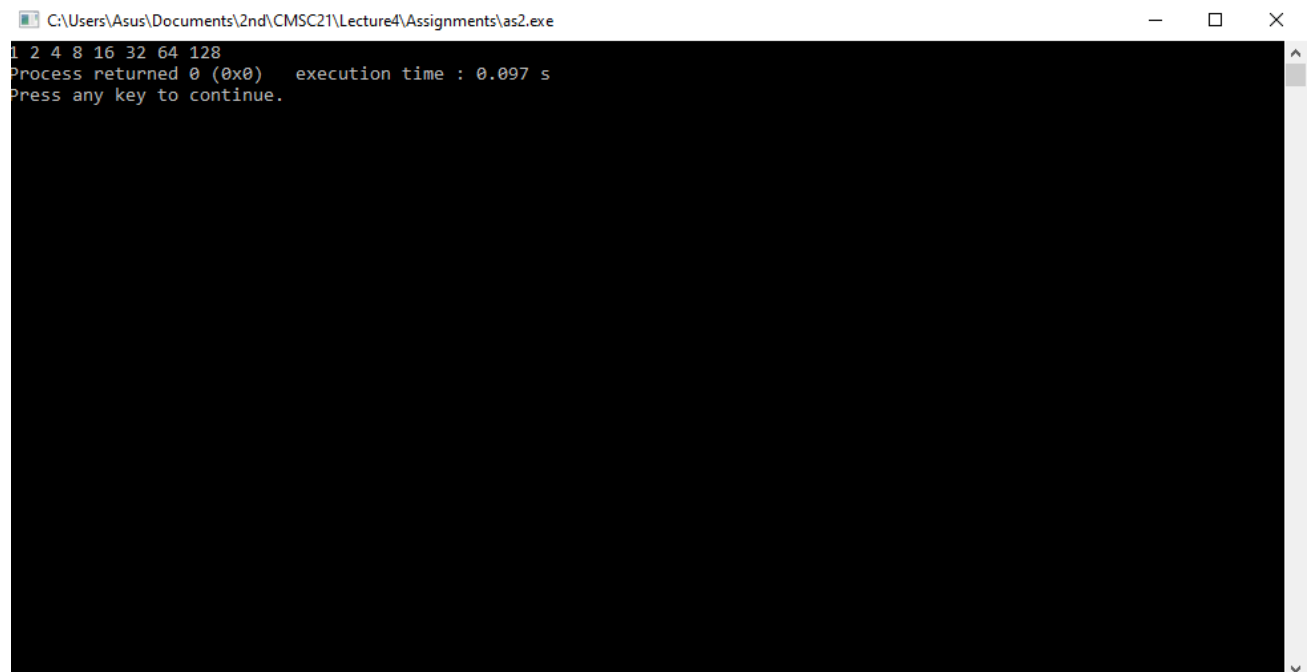


```
C:\Users\Asus\Documents\2nd\CMSC21\Lecture4\Assignments\as2.exe
While Output:
1
2
3
4
5
6
7
8
9
For Output:
1
2
3
4
5
6
7
8
9
Do-While Output:
10
Process returned 0 (0x0)   execution time : 0.109 s
Press any key to continue.
```

3.

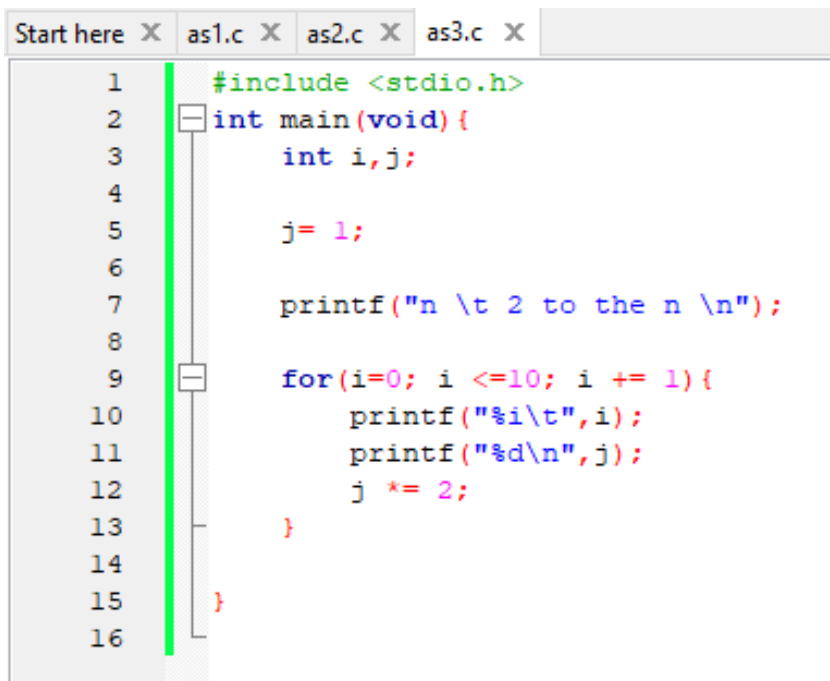


```
Start here X as1.c X as2.c X
1  #include <stdio.h>
2  int main(void)
3  {
4      int i;
5      for(i=1; i <= 128; i *=2) {
6          printf("%d ", i);
7      }
8      return 0;
9  }
10
```

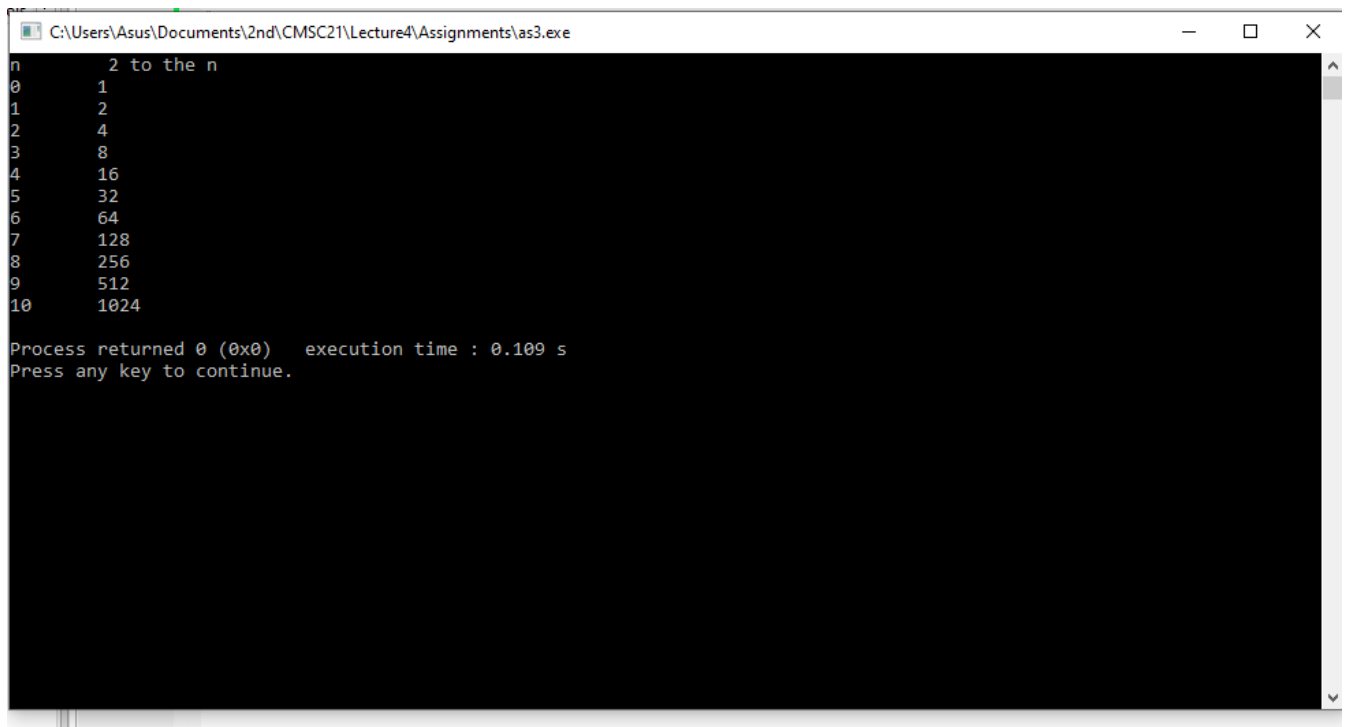


```
C:\Users\Asus\Documents\2nd\CMSC21\Lecture4\Assignments\as2.exe
1 2 4 8 16 32 64 128
Process returned 0 (0x0)   execution time : 0.097 s
Press any key to continue.
```

4.



```
Start here X as1.c X as2.c X as3.c X
1  #include <stdio.h>
2  int main(void){
3      int i,j;
4
5      j= 1;
6
7      printf("n \t 2 to the n \n");
8
9      for(i=0; i <=10; i += 1){
10         printf("%i\t",i);
11         printf("%d\n",j);
12         j *= 2;
13     }
14
15 }
16
```



```
C:\Users\Asus\Documents\2nd\CMSC21\Lecture4\Assignments\as3.exe
n      2 to the n
0      1
1      2
2      4
3      8
4      16
5      32
6      64
7      128
8      256
9      512
10     1024

Process returned 0 (0x0)   execution time : 0.109 s
Press any key to continue.
```

5.

```
Start here X as5.c X
1  #include <stdio.h>
2  int main (void){
3      int num_days, starting_day,i;
4
5      i= 1;
6
7      printf("Enter number of days in month: ");
8      scanf("%d", &num_days);
9      printf("Enter starting day of the weak (1=Sun, 7=Sat): ");
10     scanf("%d", &starting_day);
11
12     if(num_days >= 32 || num_days < 28){
13         printf("Invalid Number of Days");
14     }
15     else{
16         for(i=1; i <= starting_day; i++){
17             printf(" ");
18         }
19         for(i=1; i <= num_days; i++){
20             printf("%3d",i);
21             if(((i+starting_day)-1)%7 == 0){
22                 printf("\n");
23             }
24         }
25     }
26     return 0;
27 }
```

```
C:\Users\Asus\Documents\2nd\CMSC21\Lecture4\Assignments\as5.exe
Enter number of days in month: 31
Enter starting day of the weak (1=Sun, 7=Sat): 4
 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
Process returned 0 (0x0)   execution time : 2.828 s
Press any key to continue.
```