

## Ron Paolo Molejona

1.

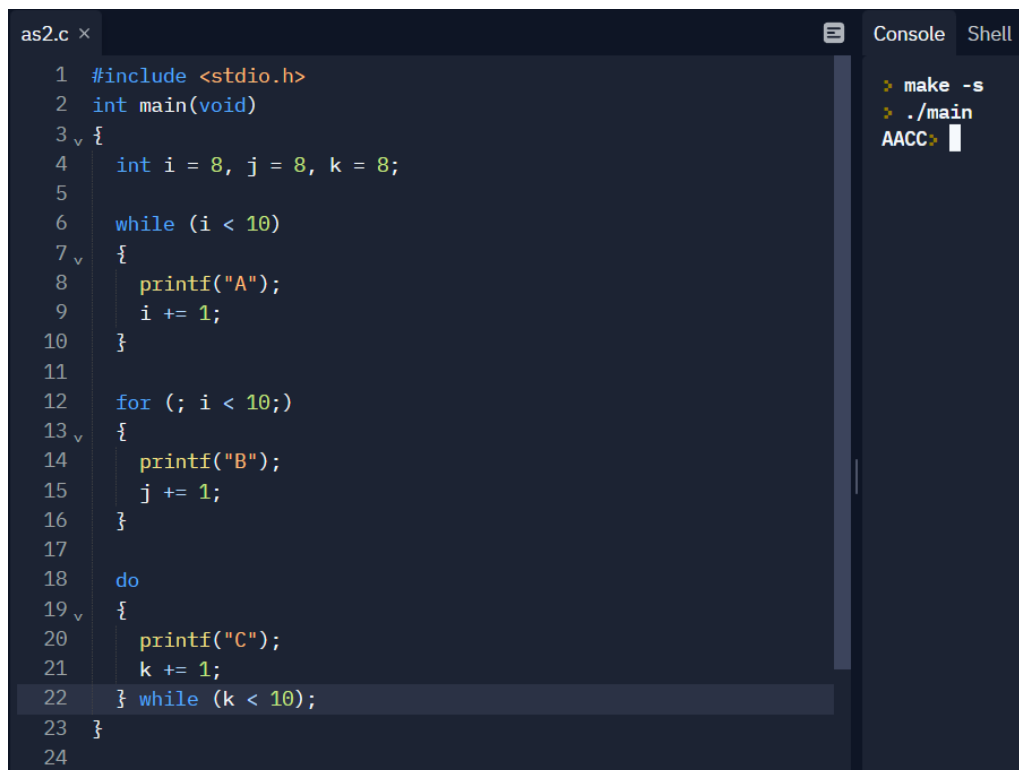


```
as1.c x
1 #include <stdio.h>
2 int main(void)
3 {
4     int i;
5     i = 1;
6     while (i <= 128) {
7         printf("%d ", i);
8         i *= 2;
9     }
10    return 0;
11 }
12
```

Console Shell

```
> make -s
> ./main
1 2 4 8 16 32 64 128 >
```

2. B is not equivalent to others.



```
as2.c x
1 #include <stdio.h>
2 int main(void)
3 {
4     int i = 8, j = 8, k = 8;
5
6     while (i < 10)
7     {
8         printf("A");
9         i += 1;
10    }
11
12    for (; i < 10;)
13    {
14        printf("B");
15        j += 1;
16    }
17
18    do
19    {
20        printf("C");
21        k += 1;
22    } while (k < 10);
23 }
24
```

Console Shell

```
> make -s
> ./main
AACC>
```

### 3. same statements repeated 8 total times

```
as2.c x
1  #include <stdio.h>
2  int main(void)
3  {
4      int i;
5      i = 1;
6
7      if (i <= 128)
8      {
9          printf("%d ", i);
10         i *= 2;
11     }
12     if (i <= 128)
13     { ... }
17     if (i <= 128)
18     { ... }
22     if (i <= 128)
23     { ... }
27     if (i <= 128)
28     { ... }
32     if (i <= 128)
33     { ... }
37     if (i <= 128)
38     { ... }
42     if (i <= 128)
43     { ... }
47
48     return 0;
49 }
50
51
```

Console Shell

```
> make -s
> ./main
1 2 4 8 16 32 64 128 >
```

### 4.

```
as4.c x
1  #include <stdio.h>
2  int main(void)
3  {
4      int i, num = 2;
5
6      for (int i = 0; i < 10; i++)
7      {
8          if (i == 0)
9              printf("%d - 1\n", i);
10         else
11             num = num * 2;
12             printf("%d - %d\n", i+1, num);
13     }
14
15     return 0;
16 }
```

Console Shell

```
> make -s
> ./main
0 - 1
1 - 2
2 - 4
3 - 8
4 - 16
5 - 32
6 - 64
7 - 128
8 - 256
9 - 512
10 - 1024
>
```

5.

```
as5.c x
1 #include<stdio.h>
2 int main(void)
3 {
4     int num_day, start_day;
5
6     printf("Enter number of days in month: ");
7     scanf("%d",&num_day);
8
9     printf("Enter the starting day of the week (1=Sun, 7=Sat):
10 ");
11     scanf("%d",&start_day);
12
13     for (int i = 1; i < start_day; i++)
14     {
15         printf(" ");
16     }
17
18     for (int i = 1; i <= num_day; i++)
19     {
20         printf(" %2d",i);
21
22         if( (start_day + i - 1 ) % 7 == 0)
23         {
24             printf("\n");
25         }
26     }
27
28     return 0;
29 }
30
```

Console Shell

```
> make -s
> ./main
Enter number of days in month: 31
Enter the starting day of the week (1=Sun, 7=Sat): 3
 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
```

<https://github.com/Ron-Paolo-Molejona/CMSC21/tree/main/Lecture4/Assignments>