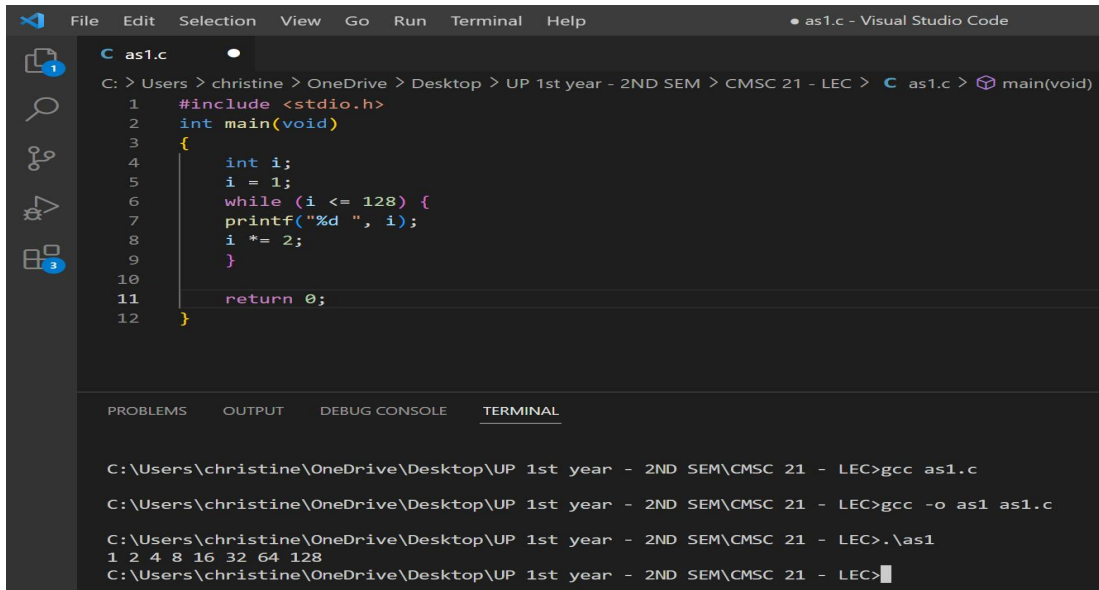


Christine Jean M. Pagunsan

1.

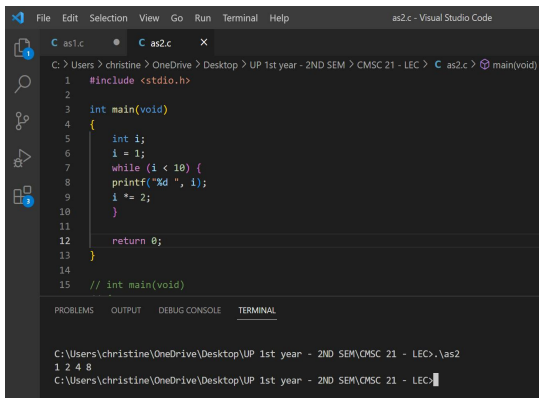


```
File Edit Selection View Go Run Terminal Help
C as1.c
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as1.c > main(void)
1  #include <stdio.h>
2  int main(void)
3  {
4      int i;
5      i = 1;
6      while (i <= 128) {
7          printf("%d ", i);
8          i *= 2;
9      }
10
11     return 0;
12 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc as1.c
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc -o as1 as1.c
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as1
1 2 4 8 16 32 64 128
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>
```

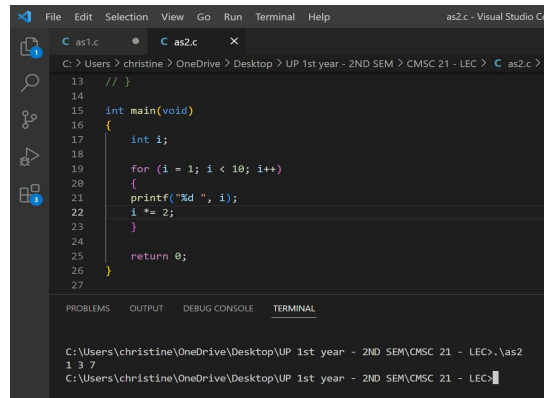
2.



```
File Edit Selection View Go Run Terminal Help
C as1.c C as2.c X
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as2.c > main(void)
1  #include <stdio.h>
2
3  int main(void)
4  {
5      int i;
6      i = 1;
7      while (i < 10) {
8          printf("%d ", i);
9          i *= 2;
10     }
11
12     return 0;
13 }
14
15 // int main(void)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

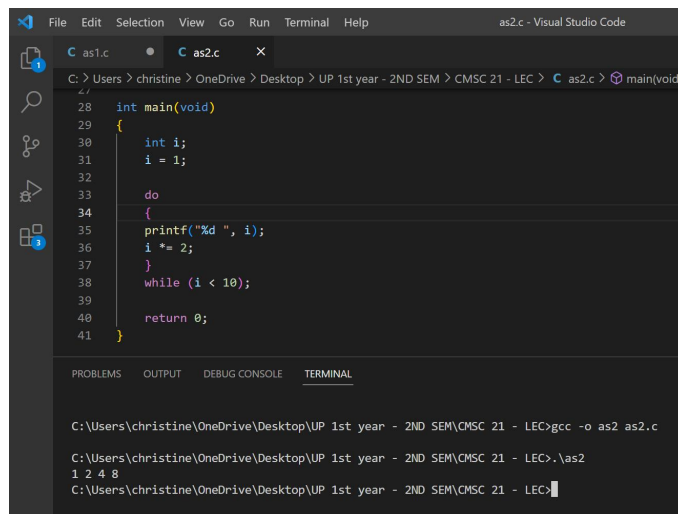
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as2
1 2 4 8
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>
```



```
File Edit Selection View Go Run Terminal Help
C as1.c C as2.c X
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as2.c >
13 // }
14
15 int main(void)
16 {
17     int i;
18
19     for (i = 1; i < 10; i++)
20     {
21         printf("%d ", i);
22         i *= 2;
23     }
24
25     return 0;
26 }
27

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as2
1 3 7
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>
```



```
File Edit Selection View Go Run Terminal Help
C as1.c C as2.c X
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as2.c > main(void)
28 //
29 int main(void)
30 {
31     int i;
32     i = 1;
33
34     do
35     {
36         printf("%d ", i);
37         i *= 2;
38     }
39     while (i < 10);
40
41     return 0;
42 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc -o as2 as2.c
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as2
1 2 4 8
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>
```

Code B is not equivalent with the other codes.

3.

```

C as1.c  C as2.c  C as3.c  X
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as3.c > main(void)
1  #include <stdio.h>
2
3  int main(void)
4  {
5      int i;
6
7      for (i=1; i <= 128; i)
8      {
9          printf("%d ", i);
10         i *= 2;
11     }
12
13     return 0;
14 }

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc -o as3 as3.c

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as3
1 2 4 8 16 32 64 128
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc as1.c

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>gcc -o as1 as1.c

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as1
1 2 4 8 16 32 64 128
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>

```

4.

```

C as4.c  X  C as5.c  5
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as4.c > main()
1  #include <stdio.h>
2  #define power 2
3
4  int main() {
5      int N, start;
6      long double final=1;
7
8      printf("EPlease enter an exponent: ");
9      scanf("%d", &N);
10
11     for(start = 1; start <= N; start++)
12     {
13         final *= power;
14     }
15     printf("The power of 2 of %d is %.0Lf", N, final);
16 }

```

```

Please enter an exponent: 8
The power of 2 of 8 is 256

```

5.

```

1  #include <stdio.h>
2
3  int main()
4  {
5      int mon, wk, m, w;
6
7      printf("Please enter the number of days: ");
8      scanf("%d", &mon);
9      printf("Please enter the day the week begins (1=Sun, 7=Sat): ");
10     scanf("%d", &wk);
11
12     if (mon == 28 || mon <= 31)
13     {
14         for (m = 0; m < wk; m++)
15         {
16             printf(" ");
17         }
18         for (w = 1; w <= mon; w++)
19         {
20             printf("%3d", w);
21
22             wk = (wk+1) % 7;
23             if (wk == 0)
24             {
25                 printf("\n");
26             }
27         }
28     }
29     else
30     {
31         printf("Please enter a valid number of days of a month.");
32     }
33     return 0;
34 }

```

```

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.as5
Please enter the number of days: 28
Please enter the day the week begins (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
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>

```

6. A

```

1  #include <stdio.h>
2  #include <stdbool.h>
3
4  #define NUM_PATHWAYS ((int) (sizeof(pathway) / sizeof(pathway[0])))
5
6  int main()
7  {
8      bool pathway[8] = {[0]= true, [2]=false};
9
10     for(int i = 0; i < NUM_PATHWAYS; i++){
11         if (pathway[i]){
12             printf("pathway[%d] is open \n", i);
13         }else{
14             printf("pathway[%d] is close \n", i);
15         }
16     }
17     return 0;
18 }

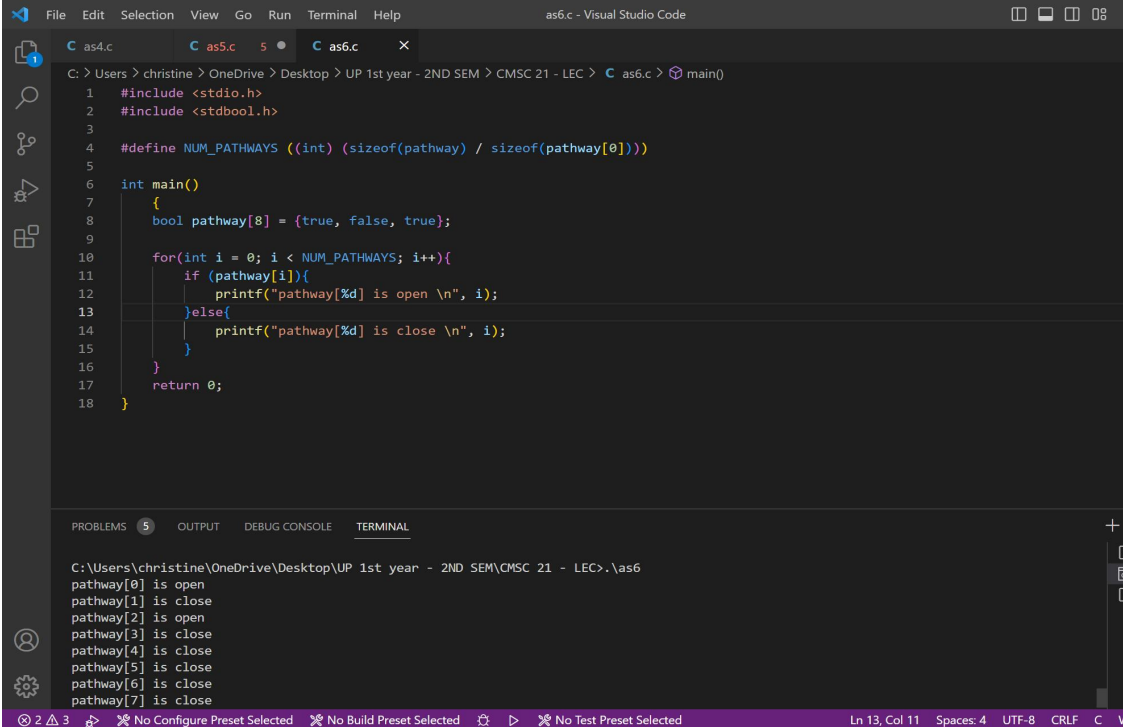
```

```

C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.as6
pathway[0] is open
pathway[1] is close
pathway[2] is open
pathway[3] is close
pathway[4] is close
pathway[5] is close
pathway[6] is close
pathway[7] is close

```

B.



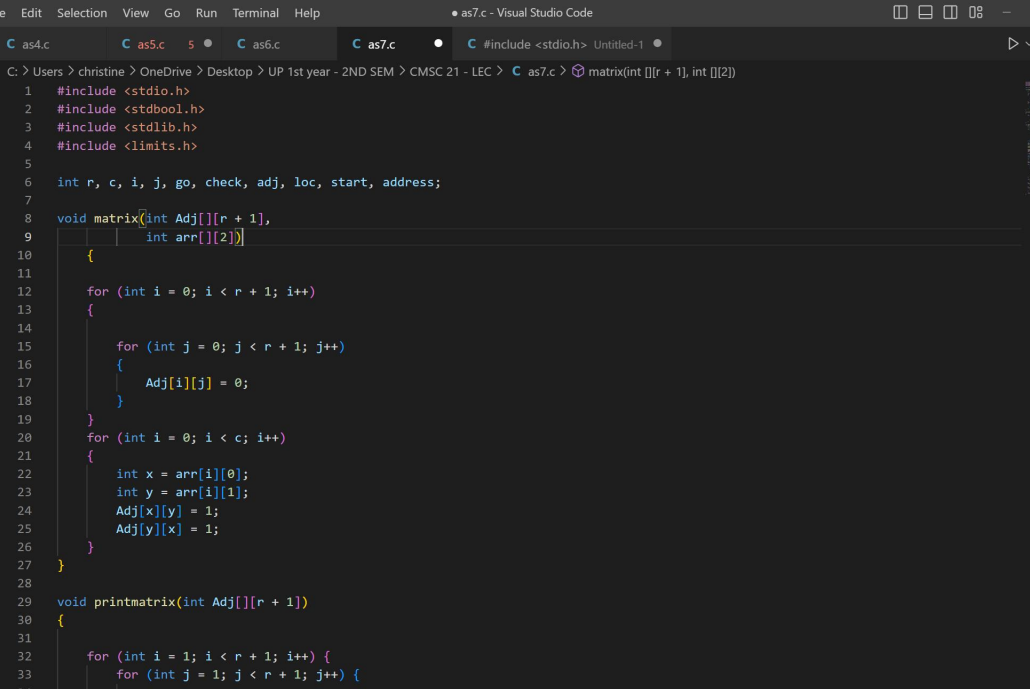
```
File Edit Selection View Go Run Terminal Help
as6.c - Visual Studio Code

C as4.c C as5.c 5 C as6.c X
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as6.c > main()
1 #include <stdio.h>
2 #include <stdbool.h>
3
4 #define NUM_PATHWAYS ((int) (sizeof(pathway) / sizeof(pathway[0])))
5
6 int main()
7 {
8     bool pathway[8] = {true, false, true};
9
10    for(int i = 0; i < NUM_PATHWAYS; i++){
11        if (pathway[i]){
12            printf("pathway[%d] is open \n", i);
13        }else{
14            printf("pathway[%d] is close \n", i);
15        }
16    }
17    return 0;
18 }

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL
C:\Users\christine\OneDrive\Desktop\UP 1st year - 2ND SEM\CMSC 21 - LEC>.\as6
pathway[0] is open
pathway[1] is close
pathway[2] is open
pathway[3] is close
pathway[4] is close
pathway[5] is close
pathway[6] is close
pathway[7] is close

2 3 No Configure Preset Selected No Build Preset Selected No Test Preset Selected Ln 13, Col 11 Spaces: 4 UTF-8 CRLF C V
```

7.



```
File Edit Selection View Go Run Terminal Help
as7.c - Visual Studio Code

C as4.c C as5.c 5 C as6.c C as7.c #include <stdio.h> Untitled-1
C: > Users > christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as7.c > matrix(int [[r + 1], int [[2]])
1 #include <stdio.h>
2 #include <stdbool.h>
3 #include <stdlib.h>
4 #include <limits.h>
5
6 int r, c, i, j, go, check, adj, loc, start, address;
7
8 void matrix(int Adj[][r + 1],
9             int arr[][2])
10 {
11
12     for (int i = 0; i < r + 1; i++)
13     {
14
15         for (int j = 0; j < r + 1; j++)
16         {
17             Adj[i][j] = 0;
18         }
19     }
20     for (int i = 0; i < c; i++)
21     {
22         int x = arr[i][0];
23         int y = arr[i][1];
24         Adj[x][y] = 1;
25         Adj[y][x] = 1;
26     }
27 }
28
29 void printmatrix(int Adj[][r + 1])
30 {
31
32     for (int i = 1; i < r + 1; i++) {
33         for (int j = 1; j < r + 1; j++) {
```

```

File Edit Selection View Go Run Terminal Help • as7.c - Visual Studio Code
C as4.c C as5.c 5 C as6.c C as7.c C #include <stdio.h> Untitled-1
C:\Users> christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as7.c > matrix(int [[r + 1], int [[2]])
32     for (int i = 1; i < r + 1; i++) {
33         for (int j = 1; j < r + 1; j++) {
34             printf("%d ", Adj[i][j]);
35         }
36         printf("\n");
37     }
38 }
39
40
41 int main()
42 {
43     r = 9;
44
45     int arr[][2]
46     = { {1, 1}, {1, 2}, {1, 6},
47         {2, 1}, {2, 2}, {2, 3},
48         {3, 2}, {3, 3}, {3, 6},
49         {4, 4}, {4, 5},
50         {5, 4}, {5, 5},
51         {6, 1}, {6, 3}, {6, 6},
52         {7, 7},
53         {8, 8}, {8, 9},
54         {9, 8}, {9, 9},
55     };
56     c = sizeof(arr) / sizeof(arr[0]);
57
58     int adj[r + 1][r + 1];
59     matrix(adj, arr);
60
61     printf("a b[c][d]e f g h i\n");
62     printmatrix(adj);
63
64     printf("Which point are you located? 0 - A, 1 - B, 2 - C, 3 - D, 4 - E, 5 - F, 6 - G, 7 - H\n");
65     scanf("%d", &loc);

```

```

File Edit Selection View Go Run Terminal Help • as7.c - Visual Studio Code
C as4.c C as5.c 5 C as6.c C as7.c C #include <stdio.h> Untitled-1
C:\Users> christine > OneDrive > Desktop > UP 1st year - 2ND SEM > CMSC 21 - LEC > C as7.c > matrix(int [[r + 1], int [[2]])
66     do{
67         printf("Invalid Input. Please try a valid input address.");
68     } while (loc == 8 || loc < 0);
69
70     int go[9], Distance;
71     bool check[9];
72
73     for (i = 0; i < 9; i++) {
74         distance[i] = INT_MAX, check[i] = false;
75     }
76     go[loc] = 0;
77
78     for (start = 0; start < 9 - 1; start++)
79     {
80         address = int min(go, check);
81         check[address] = true;
82         for (adj = 0; adj < 9; adj++) {
83             if (!check[adj])
84                 && road_networks[address][adj]
85                 && go[address] != INT_MAX
86                 && go[address] + road_networks[address][adj] < go[adj]) {
87                 go[adj] = go[address] + road_networks[address][adj];
88             }
89         }
90     }
91
92     if (loc == 2 || loc == 3) {
93         printf("At point: %c.\n", 65 + loc);
94         printf("point %c is a charging station\n", 65 + loc);
95     }
96     else if (distance[2] == INT_MAX && distance[3] == INT_MAX) {
97         printf("At point: %c.\n", 65 + loc);
98         printf("No near charging stations.\n");
99     }
100
101     else {
102         printf("At point: %c.\n", 65 + loc);
103         printf("point: %d arrived to charging station.\n", 67 + (distance[2] > distance[3]));
104     }
105
106     return 0;

```

```

a b[c][d]e f g h i
1 1 0 0 0 1 0 0 0
1 1 1 0 0 0 0 0 0
0 1 1 0 0 1 0 0 0
0 0 0 1 1 0 0 0 0
0 0 0 1 1 0 0 0 0
1 0 1 0 0 1 0 0 0
0 0 0 0 0 0 1 0 0
0 0 0 0 0 0 0 1 1
0 0 0 0 0 0 0 1 1

Which point are you located? 0 - A, 1 - B, 2 - C, 3 - D, 4 - E, 5 - F, 6 - G, 7 - H
3
At point: D.
point D is a charging station

```