

1 – Question 1

The screenshot shows the Code::Blocks IDE with a C program named `main.c` in the workspace. The program includes `<stdio.h>`, `<stdlib.h>`, `<windows.h>`, and `<time.h>`. It defines a `gotoxy` function and a `delay` function. The `main` function prompts the user to enter a size, which is 5. It then displays a 5x5 grid of numbers (15, 8, 1, 24, 17; 16, 14, 7, 5, 23; 22, 20, 13, 6, 4; 3, 21, 19, 12, 10; 9, 2, 25, 18, 11). The process returns 0 (0x0) and the execution time is 27.907 s. The console window shows the output of the program.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <windows.h>
4 #include <time.h>
5
6 void gotoxy(int x,int y)
7 {
8     COORD coord= {0,0};
9     coord.X=x;
10    coord.Y=y;
11    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE),coord);
12 }
13
14 void delay(int number_of_seconds)
15 {
16     // Converting time into milli_seconds
17     int milli_seconds = 1000 * number_of_seconds;
18
19     // Storing start time
20     clock_t start_time = clock();
21
22     // looping till required time is not achieved
```

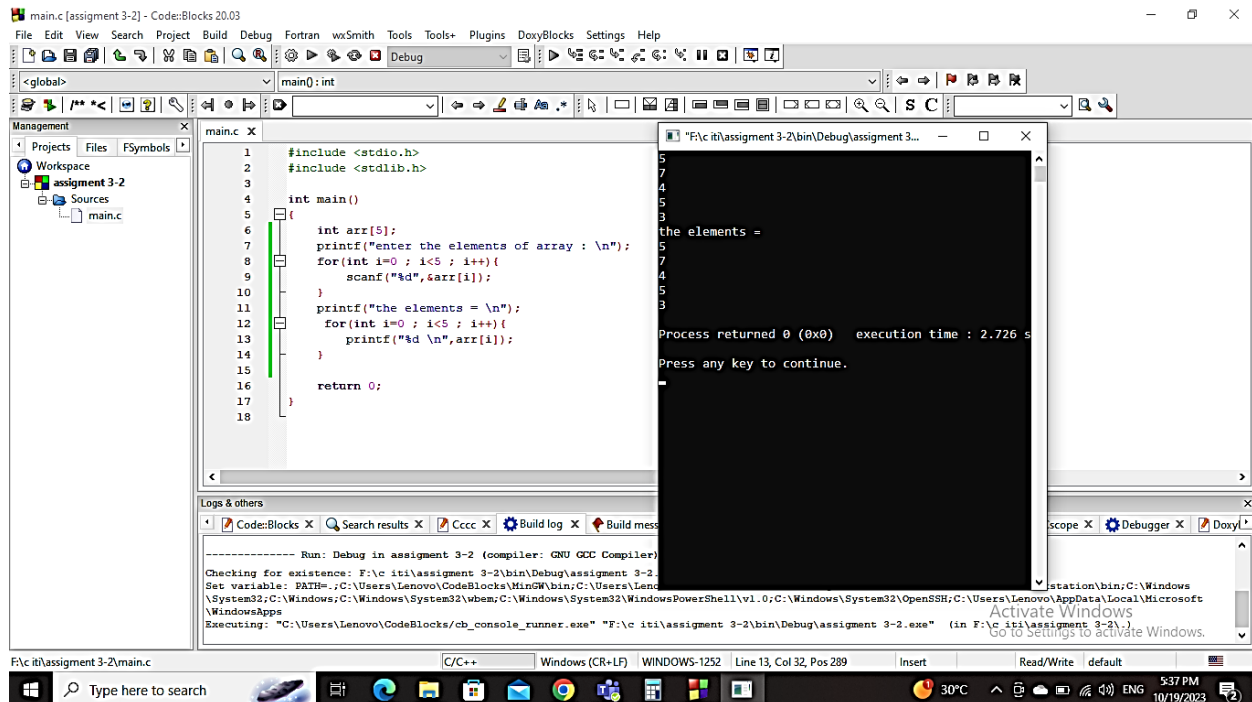
Run: Debug in assignment1 (compiler: GNU GCC Compiler)-----
Checking for existence: F:\c it\assignment1\bin\Debug\assignment1.exe
Set variable: PATH=.;C:\Users\Lenovo\CodeBlocks\MinGW\bin;C:\Users\Lenovo\CodeBlocks\MinGW\bin\..\x86\bin;C:\Windows\System32\OpenSSH;C:\Users\Lenovo\AppData\Local\Microsoft\WindowsApps
Executing: "C:\Users\Lenovo\CodeBlocks\cb_console_runner.exe" "F:\c it\assignment1\bin\Debug\assignment1.exe" (in F:\c it\assignment1\)

The screenshot shows the Code::Blocks IDE with the same C program as above. The user enters a size of 3. The program displays a 3x3 grid of numbers (6, 1, 8; 7, 5, 3; 2, 9, 4). The process returns 0 (0x0) and the execution time is 10.562 s. The console window shows the output of the program.

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <windows.h>
4 #include <time.h>
5
6 void gotoxy(int x,int y)
7 {
8     COORD coord= {0,0};
9     coord.X=x;
10    coord.Y=y;
11    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE),coord);
12 }
13
14 void delay(int number_of_seconds)
15 {
16     // Converting time into milli_seconds
17     int milli_seconds = 1000 * number_of_seconds;
18
19     // Storing start time
20     clock_t start_time = clock();
21
22     // looping till required time is not achieved
```

Run: Debug in assignment1 (compiler: GNU GCC Compiler)-----
Checking for existence: F:\c it\assignment1\bin\Debug\assignment1.exe
Set variable: PATH=.;C:\Users\Lenovo\CodeBlocks\MinGW\bin;C:\Users\Lenovo\CodeBlocks\MinGW\bin\..\x86\bin;C:\Windows\System32\OpenSSH;C:\Users\Lenovo\AppData\Local\Microsoft\WindowsApps
Executing: "C:\Users\Lenovo\CodeBlocks\cb_console_runner.exe" "F:\c it\assignment1\bin\Debug\assignment1.exe" (in F:\c it\assignment1\)

Question 2 –



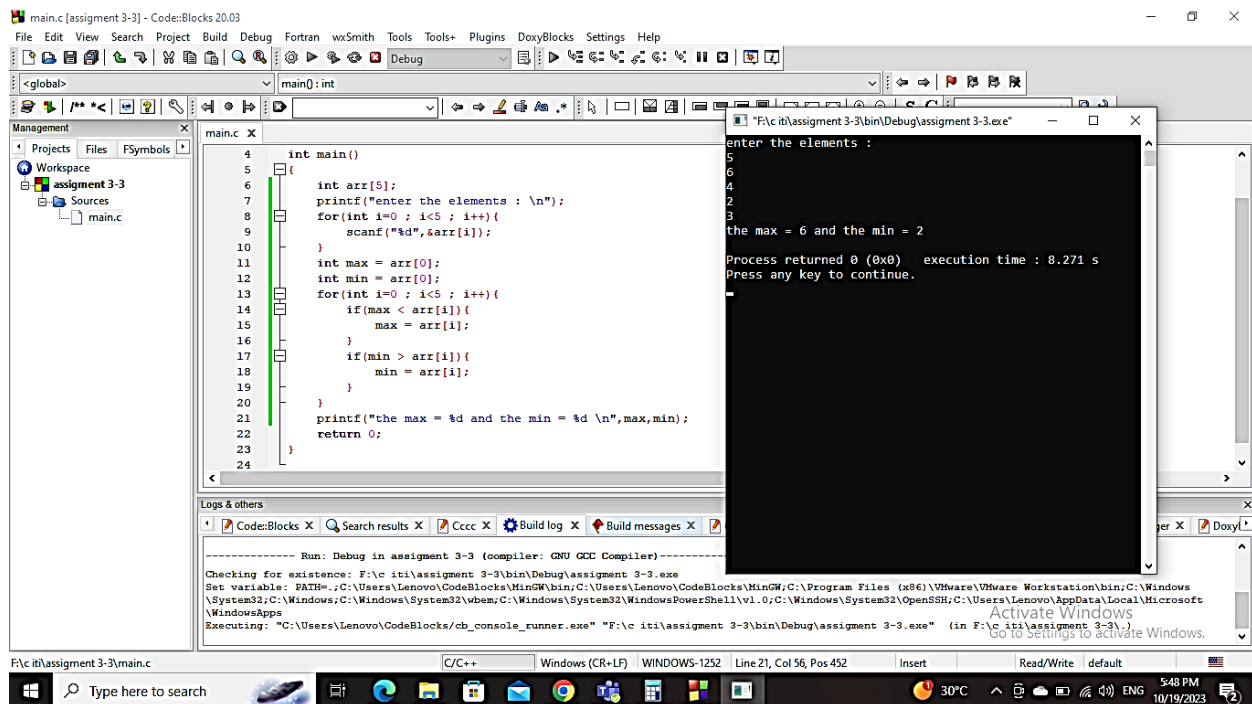
main.c [assignment 3-2] - Code::Blocks 20.03

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int main()
5 {
6     int arr[5];
7     printf("enter the elements of array : \n");
8     for(int i=0 ; i<5 ; i++){
9         scanf("%d",&arr[i]);
10    }
11    printf("the elements = \n");
12    for(int i=0 ; i<5 ; i++){
13        printf("%d \n",arr[i]);
14    }
15
16    return 0;
17 }
18
```

Process returned 0 (0x0) execution time : 2.726 s
Press any key to continue.

Run: Debug in assignment 3-2 (compiler: GNU GCC Compiler)
Checking for existence: F:\c it\assignment 3-2\bin\Debug\assignment 3-2.exe
Set variable: PATH=.;C:\Users\Lenovo\CodeBlocks\MinGW\bin;C:\Users\Lenovo\AppData\Local\Microsoft\WindowsApps
Executing: "C:\Users\Lenovo\CodeBlocks\cb_console_runner.exe" "F:\c it\assignment 3-2\bin\Debug\assignment 3-2.exe" (in F:\c it\assignment 3-2\)

Question 3 –



main.c [assignment 3-3] - Code::Blocks 20.03

```
4 int main()
5 {
6     int arr[5];
7     printf("enter the elements : \n");
8     for(int i=0 ; i<5 ; i++){
9         scanf("%d",&arr[i]);
10    }
11    int max = arr[0];
12    int min = arr[0];
13    for(int i=0 ; i<5 ; i++){
14        if(max < arr[i]){
15            max = arr[i];
16        }
17        if(min > arr[i]){
18            min = arr[i];
19        }
20    }
21    printf("the max = %d and the min = %d \n",max,min);
22    return 0;
23 }
24
```

enter the elements :
the max = 6 and the min = 2
Process returned 0 (0x0) execution time : 8.271 s
Press any key to continue.

Run: Debug in assignment 3-3 (compiler: GNU GCC Compiler)
Checking for existence: F:\c it\assignment 3-3\bin\Debug\assignment 3-3.exe
Set variable: PATH=.;C:\Users\Lenovo\CodeBlocks\MinGW\bin;C:\Program Files (x86)\VMware\VMware Workstation\bin;C:\Windows\System32;C:\Windows\System32\wbem;C:\Windows\System32\WindowsPowerShell\v1.0;C:\Windows\System32\OpenSSH;C:\Users\Lenovo\AppData\Local\Microsoft\WindowsApps
Executing: "C:\Users\Lenovo\CodeBlocks\cb_console_runner.exe" "F:\c it\assignment 3-3\bin\Debug\assignment 3-3.exe" (in F:\c it\assignment 3-3\)