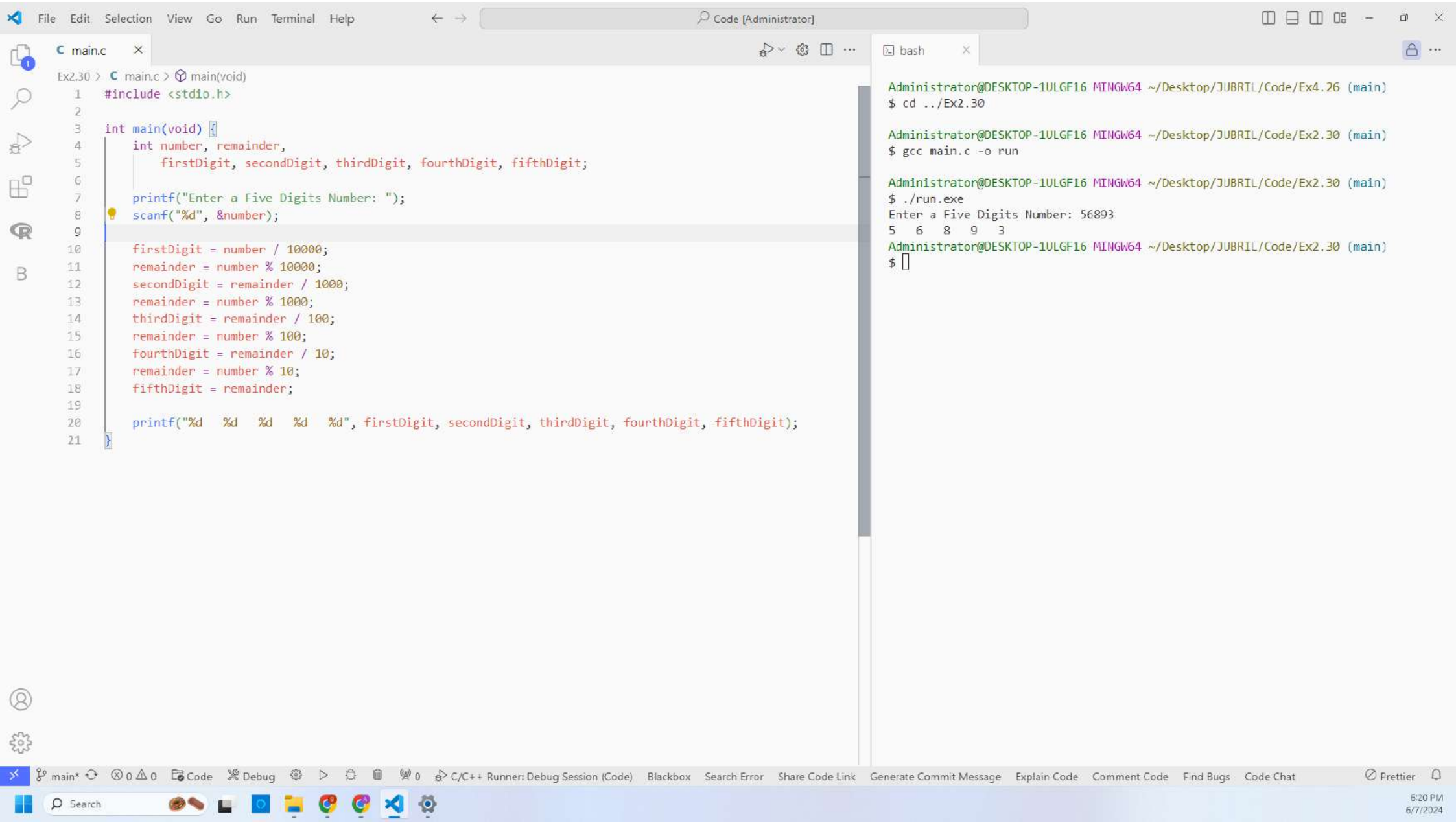
File Edit Selection View Go Run Terminal Help
Code [Administrator]
main.c
Ex2.30 > main.c > main(void)
#include <stdio.h>
int main(void) {
int number, remainder,
firstDigit, secondDigit, thirdDigit, fourthDigit, fifthDigit;
printf("Enter a Five Digits Number: ");
scanf("%d", &number);
firstDigit = number / 10000;
remainder = number % 10000;
secondDigit = remainder / 1000;
remainder = number % 1000;
thirdDigit = remainder / 100;
remainder = number % 100;
fourthDigit = remainder / 10;
remainder = number % 10;
fifthDigit = remainder;
printf("%d %d %d %d %d", firstDigit, secondDigit, thirdDigit, fourthDigit, fifthDigit);
}
bash
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.26 (main)
$ cd ../Ex2.30
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.30 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.30 (main)
$ ./run.exe
Enter a Five Digits Number: 56893
5 6 8 9 3
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.30 (main)
$
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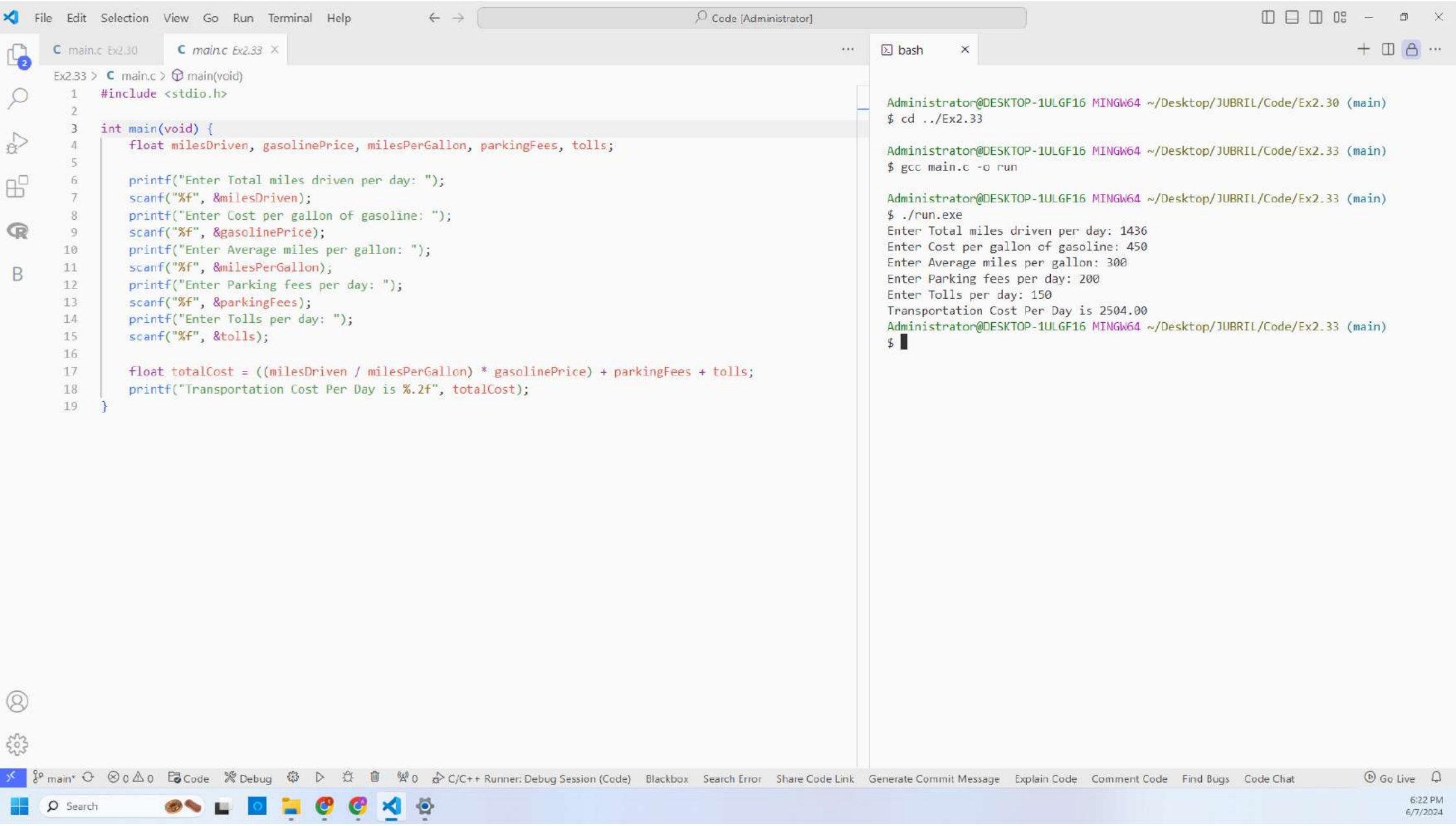
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Code [Administrator]
main.c Ex2.30
main.c Ex2.33
Ex2.33 > main.c > main(void)
#include <stdio.h>
int main(void) {
float milesDriven, gasolinePrice, milesPerGallon, parkingFees, tolls;
printf("Enter Total miles driven per day: ");
scanf("%f", &milesDriven);
printf("Enter Cost per gallon of gasoline: ");
scanf("%f", &gasolinePrice);
printf("Enter Average miles per gallon: ");
scanf("%f", &milesPerGallon);
printf("Enter Parking fees per day: ");
scanf("%f", &parkingFees);
printf("Enter Tolls per day: ");
scanf("%f", &tolls);
float totalCost = ((milesDriven / milesPerGallon) * gasolinePrice) + parkingFees + tolls;
printf("Transportation Cost Per Day is %.2f", totalCost);
}
bash
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.30 (main)
$ cd ../Ex2.33
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.33 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.33 (main)
$ ./run.exe
Enter Total miles driven per day: 1436
Enter Cost per gallon of gasoline: 450
Enter Average miles per gallon: 300
Enter Parking fees per day: 200
Enter Tolls per day: 150
Transportation Cost Per Day is 2504.00
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.33 (main)
$
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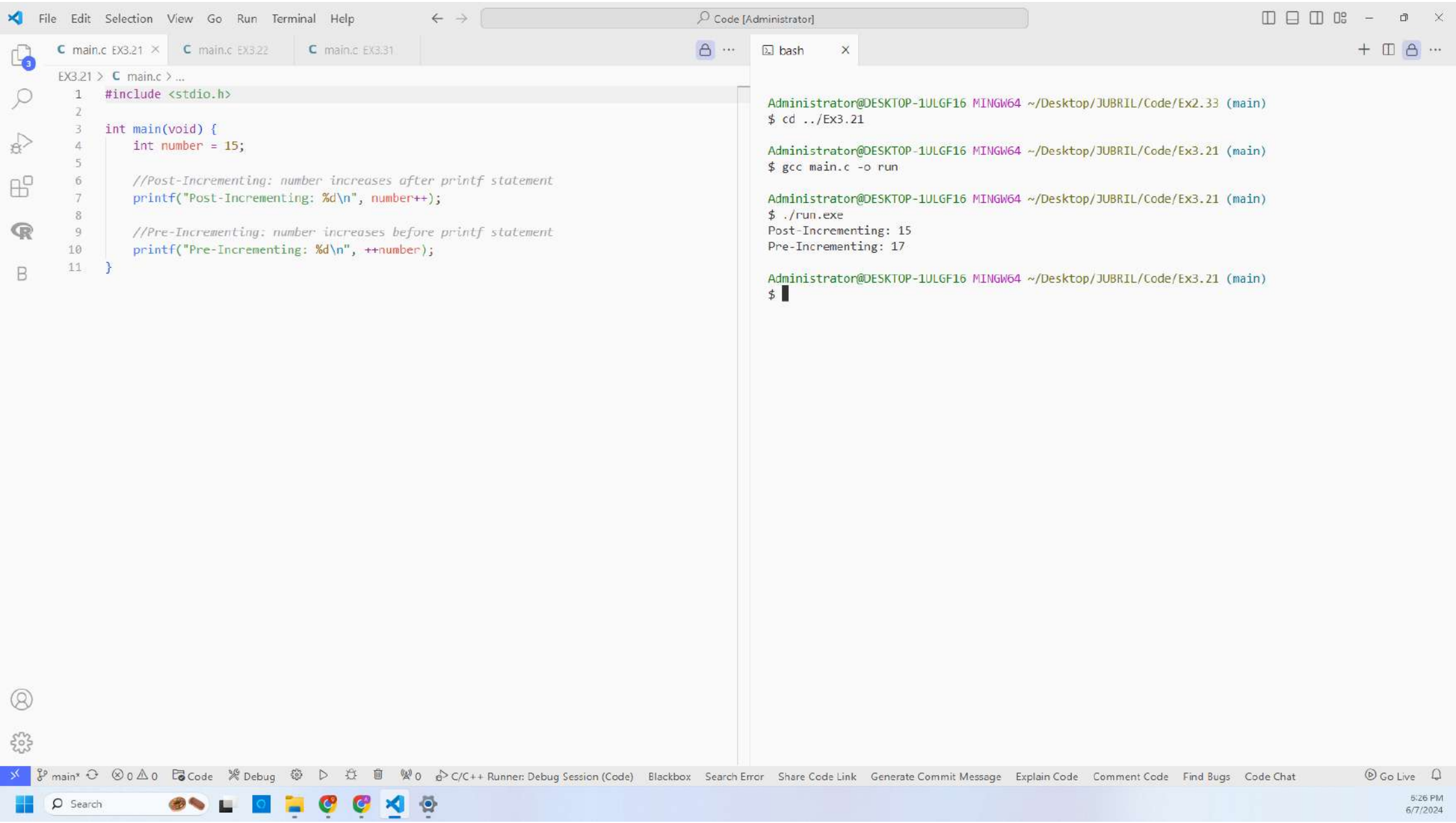
File Edit Selection View Go Run Terminal Help
Code [Administrator]
main.c EX3.21
main.c EX3.22
main.c EX3.31
bash
EX3.21 > main.c > ...
#include <stdio.h>
int main(void) {
int number = 15;
//Post-Incrementing: number increases after printf statement
printf("Post-Incrementing: %d\n", number++);
//Pre-Incrementing: number increases before printf statement
printf("Pre-Incrementing: %d\n", ++number);
}
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex2.33 (main)
$ cd ../Ex3.21
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.21 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.21 (main)
$ ./run.exe
Post-Incrementing: 15
Pre-Incrementing: 17
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.21 (main)
$
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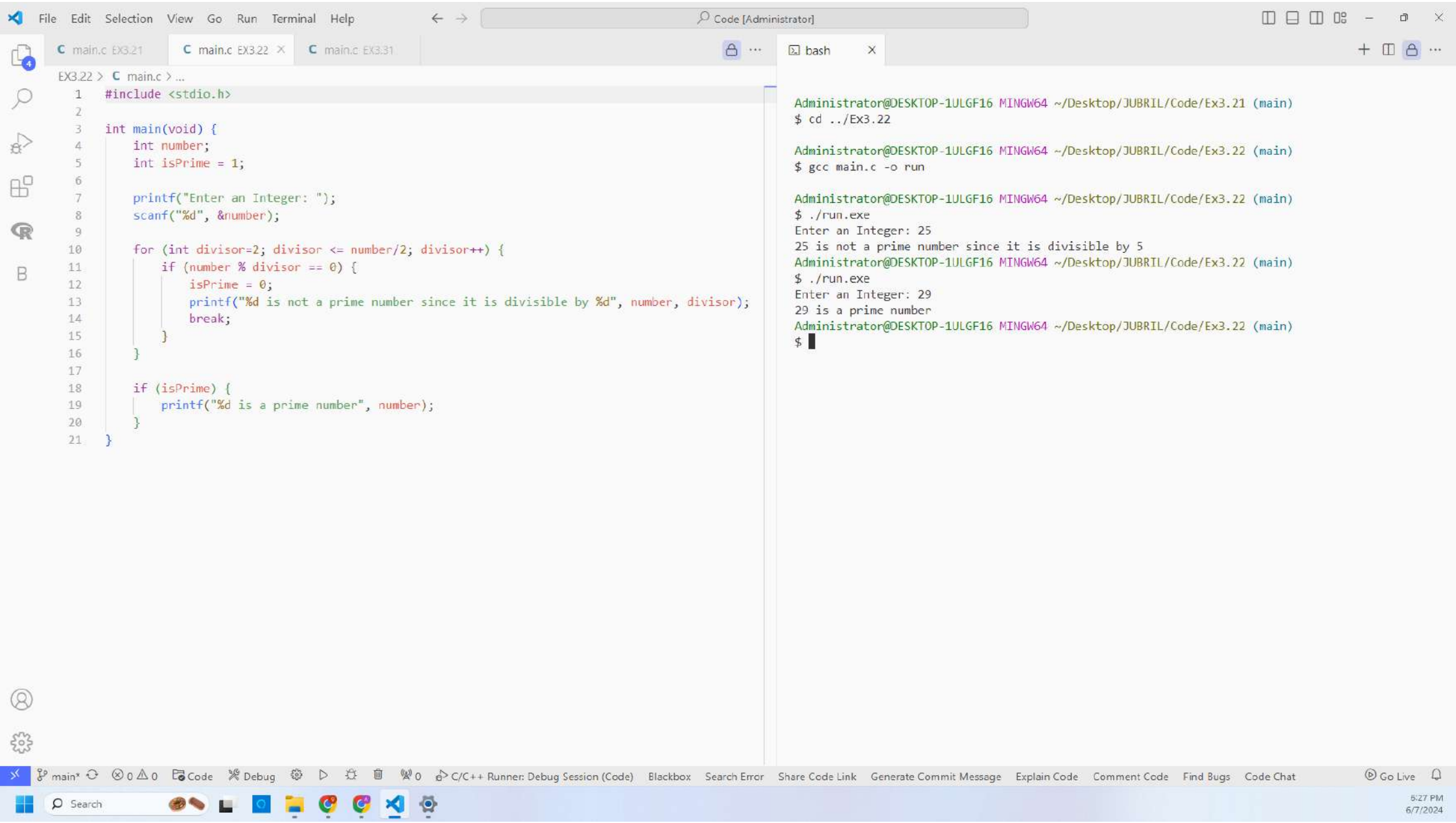
File Edit Selection View Go Run Terminal Help
Code [Administrator]
main.c EX3.21
main.c EX3.22
main.c EX3.31
bash
EX3.22 > main.c > ...
#include <stdio.h>
int main(void) {
int number;
int isPrime = 1;
printf("Enter an Integer: ");
scanf("%d", &number);
for (int divisor=2; divisor <= number/2; divisor++) {
if (number % divisor == 0) {
isPrime = 0;
printf("%d is not a prime number since it is divisible by %d", number, divisor);
break;
}
}
if (isPrime) {
printf("%d is a prime number", number);
}
}
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.21 (main)
$ cd ../Ex3.22
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.22 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.22 (main)
$ ./run.exe
Enter an Integer: 25
25 is not a prime number since it is divisible by 5
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.22 (main)
$ ./run.exe
Enter an Integer: 29
29 is a prime number
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.22 (main)
$
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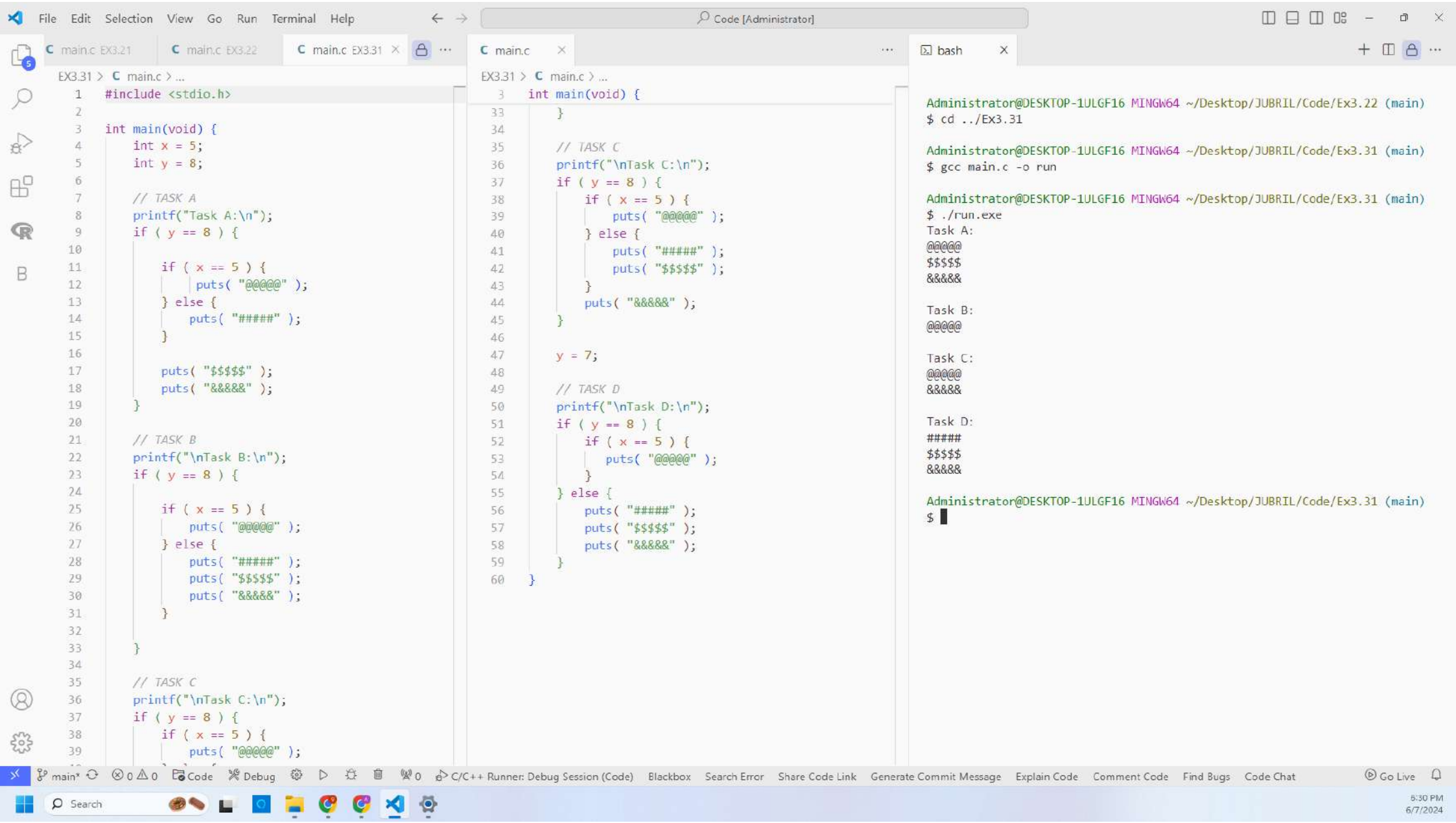
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Code [Administrator]
main.c EX3.21
main.c EX3.22
main.c EX3.31
EX3.31 > main.c > ...
#include <stdio.h>
int main(void) {
int x = 5;
int y = 8;
// TASK A
printf("Task A:\n");
if (y == 8) {
if (x == 5) {
puts("@@@@@");
} else {
puts("#####");
}
puts("$$$$$");
puts("&&&&&");
}
// TASK B
printf("\nTask B:\n");
if (y == 8) {
if (x == 5) {
puts("@@@@@");
} else {
puts("#####");
puts("$$$$$");
puts("&&&&&");
}
}
// TASK C
printf("\nTask C:\n");
if (y == 8) {
if (x == 5) {
puts("@@@@@");
main.c
EX3.31 > main.c > ...
int main(void) {
}
// TASK C
printf("\nTask C:\n");
if (y == 8) {
if (x == 5) {
puts("@@@@@");
} else {
puts("#####");
puts("$$$$$");
}
puts("&&&&&");
}
y = 7;
// TASK D
printf("\nTask D:\n");
if (y == 8) {
if (x == 5) {
puts("@@@@@");
}
} else {
puts("#####");
puts("$$$$$");
puts("&&&&&");
}
}
bash
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.22 (main)
$ cd ../Ex3.31
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.31 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.31 (main)
$ ./run.exe
Task A:
@@@@@
$$$$$
&&&&&
Task B:
@@@@@
Task C:
@@@@@
&&&&&
Task D:
#####
$$$$$
&&&&&
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.31 (main)
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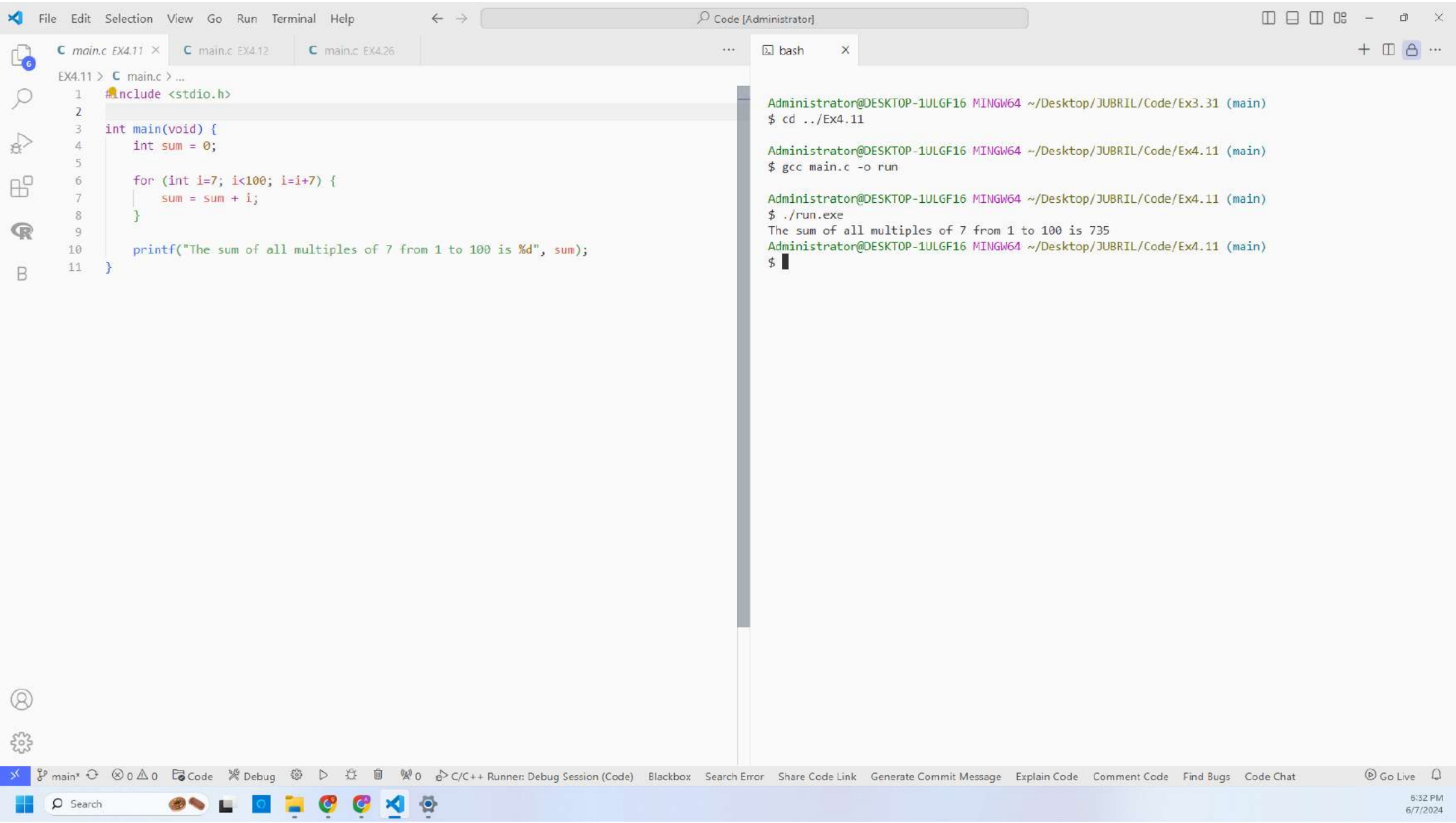
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Code [Administrator]
main.c EX4.11
main.c EX4.12
main.c EX4.26
bash
EX4.11 > main.c > ...
#include <stdio.h>
int main(void) {
int sum = 0;
for (int i=7; i<100; i=i+7) {
sum = sum + i;
}
printf("The sum of all multiples of 7 from 1 to 100 is %d", sum);
}
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex3.31 (main)
$ cd ../Ex4.11
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.11 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.11 (main)
$ ./run.exe
The sum of all multiples of 7 from 1 to 100 is 735
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.11 (main)
$
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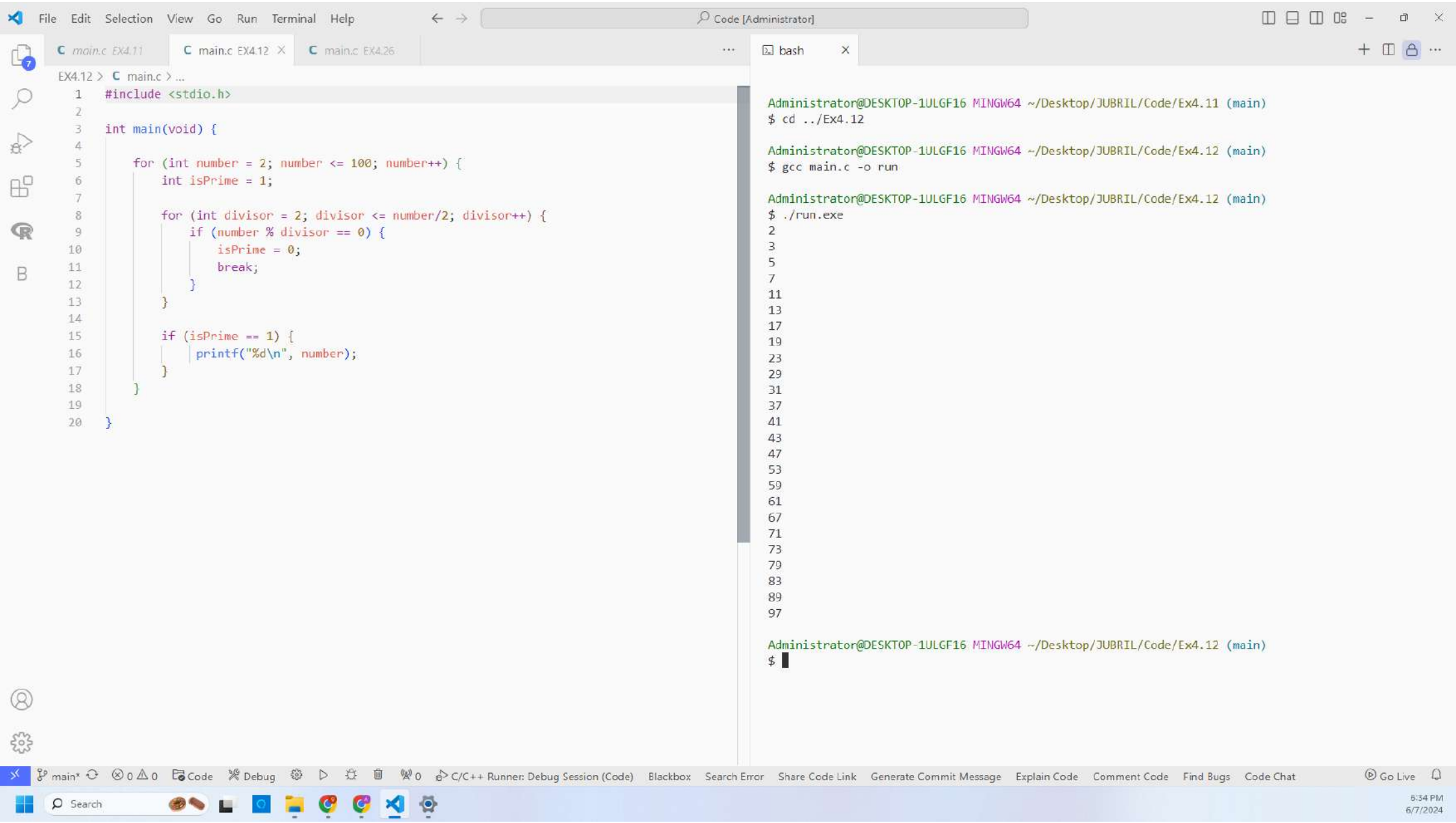
File Edit Selection View Go Run Terminal Help
Code [Administrator]
main.c EX4.11
main.c EX4.12
main.c EX4.26
EX4.12 > main.c > ...
#include <stdio.h>
int main(void) {
for (int number = 2; number <= 100; number++) {
int isPrime = 1;
for (int divisor = 2; divisor <= number/2; divisor++) {
if (number % divisor == 0) {
isPrime = 0;
break;
}
}
if (isPrime == 1) {
printf("%d\n", number);
}
}
}
bash
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.11 (main)
$ cd ../Ex4.12
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.12 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.12 (main)
$ ./run.exe
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.12 (main)
$
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Code [Administrator]

main.c EX4.11 | main.c EX4.12 | main.c EX4.26

EX4.26 > main.c > ...

```c
#include <stdio.h>

int main() {
    double pi = 0.0;
    int n = 0;
    int sign = 1;
    double term;
    int precision1 = 0, precision2 = 0, precision3 = 0, precision4 = 0;

    printf("Terms\tApproximation of Pi\n");
    printf("----------------------------\n");

    do {
        term = sign * (4.0 / (2 * n + 1));
        pi += term;
        sign = -sign;
        n++;

        printf("%d\t%.15f\n", n, pi);

        if (!precision1 && pi >= 3.14 && pi < 3.15) precision1 = n;
        if (!precision2 && pi >= 3.141 && pi < 3.142) precision2 = n;
        if (!precision3 && pi >= 3.1415 && pi < 3.1416) precision3 = n;
        if (!precision4 && pi >= 3.14159 && pi < 3.14160) precision4 = n;
    } while (precision4 == 0);

    printf("\nTerms required to reach:\n");
    printf("3.14: %d\n", precision1);
    printf("3.141: %d\n", precision2);
    printf("3.1415: %d\n", precision3);
    printf("3.14159: %d\n", precision4);

    return 0;
}
```

bash

```
136088  3.141585305403281
136089  3.141600001722221
136090  3.141585305511271
136091  3.141600001614232
136092  3.141585305619258
136093  3.141600001506247
136094  3.141585305727242
136095  3.141600001398265
136096  3.141585305835223
136097  3.141600001290286
136098  3.141585305943200
136099  3.141600001182310
136100  3.141585306051175
136101  3.141600001074338
136102  3.141585306159146
136103  3.141600000966369
136104  3.141585306267114
136105  3.141600000858402
136106  3.141585306375079
136107  3.141600000750439
136108  3.141585306483040
136109  3.141600000642479
136110  3.141585306590999
136111  3.141600000534523
136112  3.141585306698954
136113  3.141600000426569
136114  3.141585306806906
136115  3.141600000318618
136116  3.141585306914854
136117  3.141600000210671
136118  3.141585307022800
136119  3.141600000102727
136120  3.141585307130743
136121  3.141599999994786

Terms required to reach:
3.14: 119
3.141: 1688
3.1415: 10794
3.14159: 136121

Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex4.26 (main)
$
```

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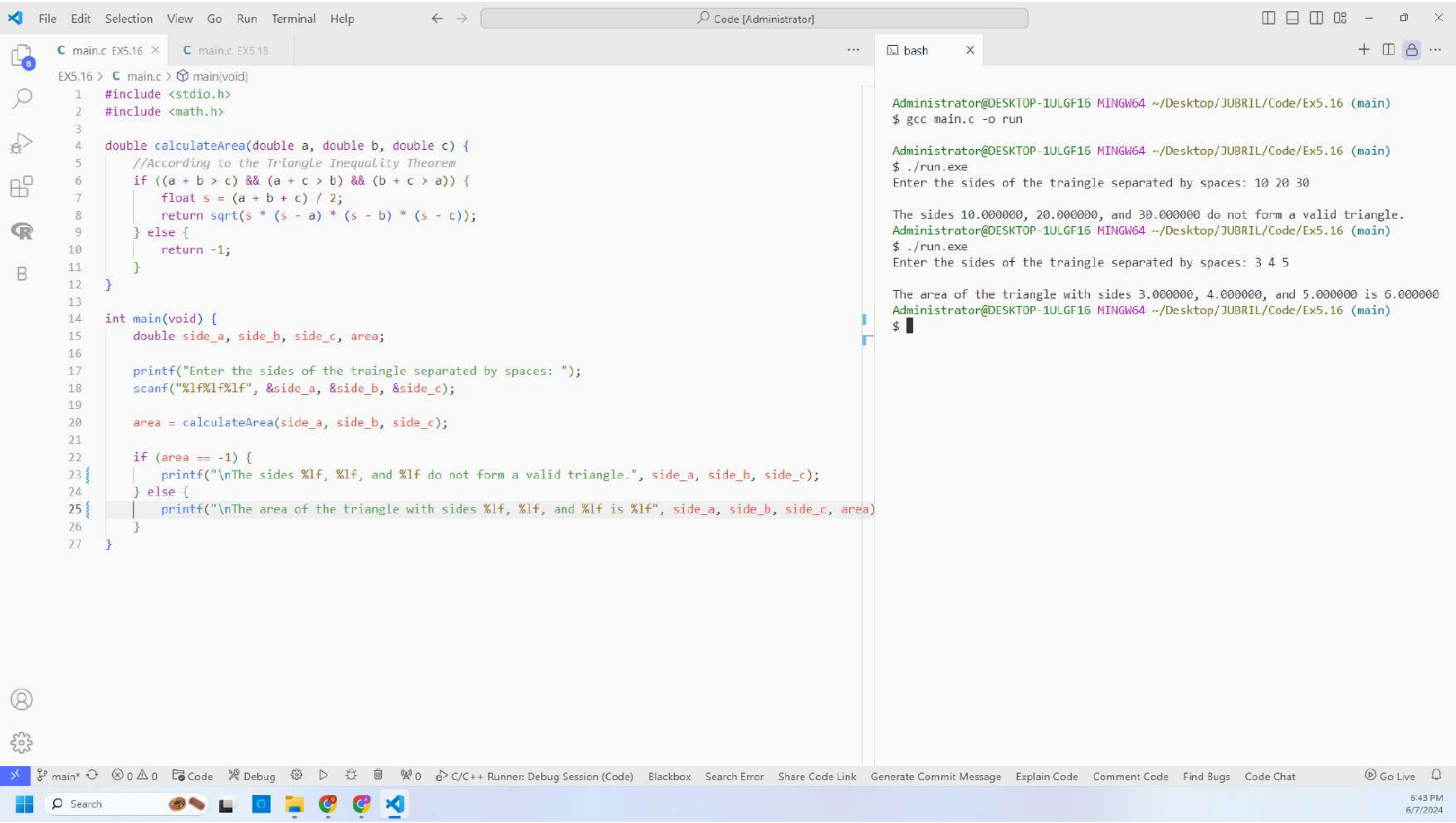
File Edit Selection View Go Run Terminal Help
Code [Administrator]
main.c EX5.16
main.c EX5.18
EX5.16 > main.c > main(void)
#include <stdio.h>
#include <math.h>
double calculateArea(double a, double b, double c) {
//According to the Triangle Inequality Theorem
if ((a + b > c) && (a + c > b) && (b + c > a)) {
float s = (a + b + c) / 2;
return sqrt(s * (s - a) * (s - b) * (s - c));
} else {
return -1;
}
}
int main(void) {
double side_a, side_b, side_c, area;
printf("Enter the sides of the traingle separated by spaces: ");
scanf("%lf%lf%lf", &side_a, &side_b, &side_c);
area = calculateArea(side_a, side_b, side_c);
if (area == -1) {
printf("\nThe sides %lf, %lf, and %lf do not form a valid triangle.", side_a, side_b, side_c);
} else {
printf("\nThe area of the triangle with sides %lf, %lf, and %lf is %lf", side_a, side_b, side_c, area)
}
}
bash
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.16 (main)
$ gcc main.c -o run
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.16 (main)
$ ./run.exe
Enter the sides of the traingle separated by spaces: 10 20 30
The sides 10.000000, 20.000000, and 30.000000 do not form a valid triangle.
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.16 (main)
$ ./run.exe
Enter the sides of the traingle separated by spaces: 3 4 5
The area of the triangle with sides 3.000000, 4.000000, and 5.000000 is 6.000000
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.16 (main)
$
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Code [Administrator]

main.c EX5.16 | main.c EX5.18

EX5.18 > main.c > ...

```c
#include <stdio.h>

int isEven(int number) {
    if (number % 2 == 0) {
        return 1;
    } else {
        return 0;
    }
}

int main(void) {
    int integer;

    while (integer != 0) {
        printf("Enter an Integer (Enter 0 to exit): ");
        scanf("%d", &integer);

        if (isEven(integer) == 0) {
            printf("%d is an odd number\n", integer);
        } else {
            printf("%d is an even number\n", integer);
        }
    }
}
```

bash

```
Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.16 (main)
$ cd ../Ex5.18

Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.18 (main)
$ gcc main.c -o run

Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.18 (main)
$ ./run.exe
Enter an Integer (Enter 0 to exit): 6
6 is an even number
Enter an Integer (Enter 0 to exit): 9
9 is an odd number
Enter an Integer (Enter 0 to exit): 3
3 is an odd number
Enter an Integer (Enter 0 to exit): 2
2 is an even number
Enter an Integer (Enter 0 to exit): 0
0 is an even number

Administrator@DESKTOP-1ULGF16 MINGW64 ~/Desktop/JUBRIL/Code/Ex5.18 (main)
$
```

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