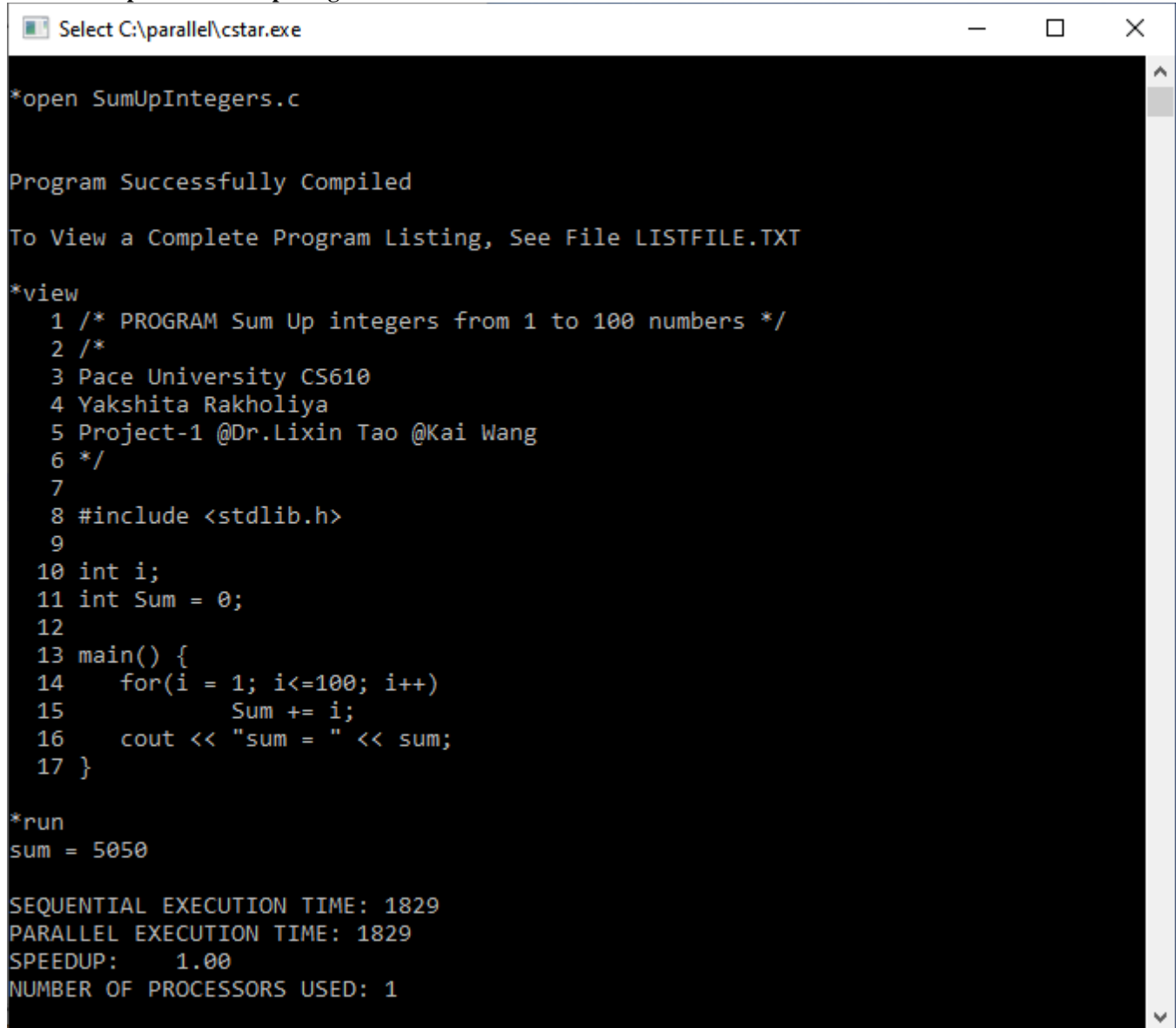


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Course: CS-610-22756
Project-1

- Develop and run a C* program to sum up integers from 1 to 100 and print out the sum value on the screen.

→ screen capture of sum up integers from 1 to 100.



The screenshot shows a window titled "Select C:\parallel\cstar.exe". The main area displays the output of a C* program. It starts with the command `*open SumUpIntegers.c`, followed by the message "Program Successfully Compiled" and "To View a Complete Program Listing, See File LISTFILE.TXT". Then, the command `*view` is executed, showing the source code of the program. The code is a C program that calculates the sum of integers from 1 to 100. It includes a header `<stdlib.h>`, declares an integer `i` and a sum variable `Sum` initialized to 0. The `main` function uses a `for` loop to iterate from 1 to 100, adding each value to `Sum`, and then prints the result using `cout`. Finally, the command `*run` is executed, showing the output `sum = 5050`. Below the output, performance metrics are displayed: "SEQUENTIAL EXECUTION TIME: 1829", "PARALLEL EXECUTION TIME: 1829", "SPEEDUP: 1.00", and "NUMBER OF PROCESSORS USED: 1".

```
Select C:\parallel\cstar.exe

*open SumUpIntegers.c

Program Successfully Compiled

To View a Complete Program Listing, See File LISTFILE.TXT

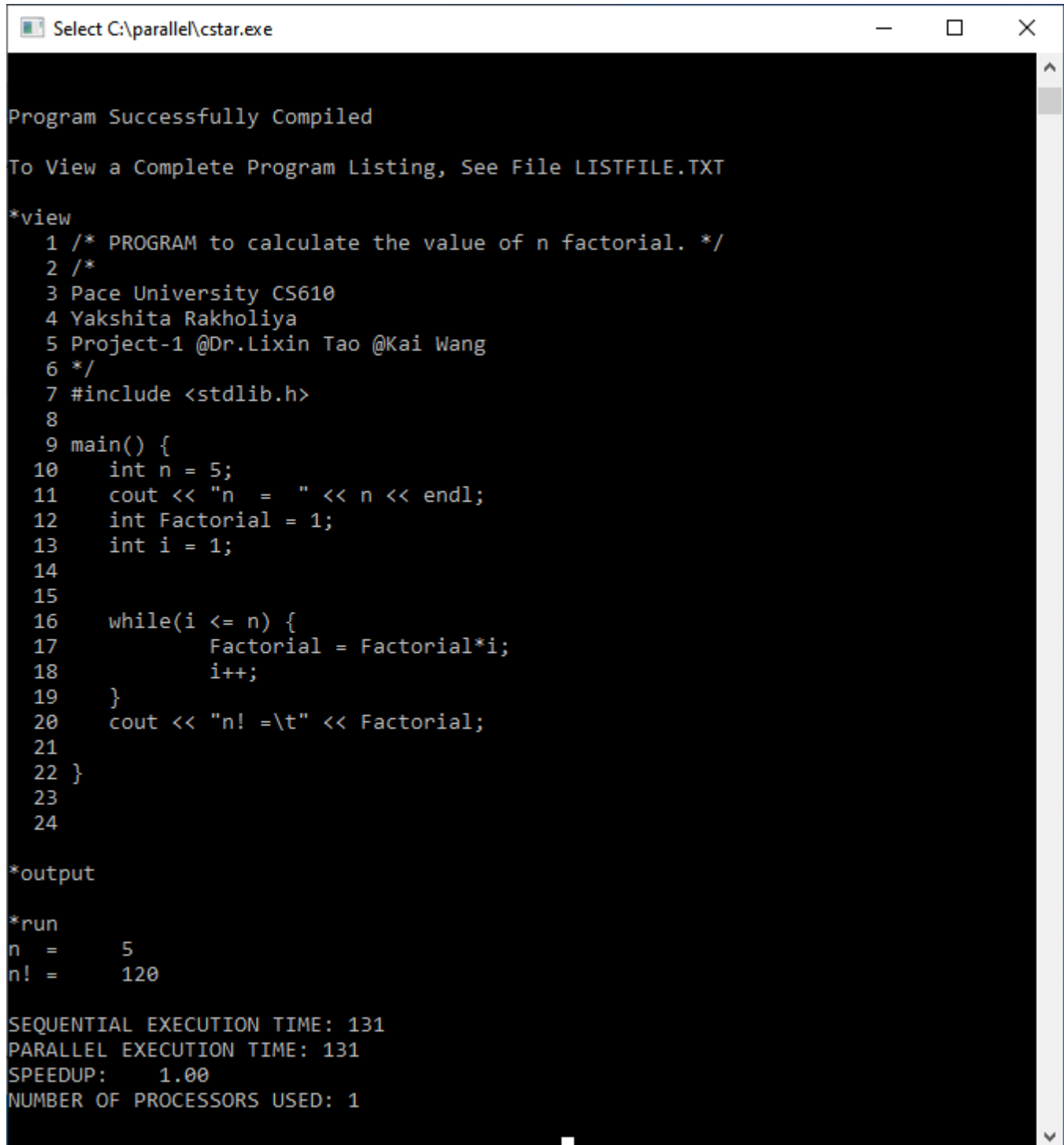
*view
1 /* PROGRAM Sum Up integers from 1 to 100 numbers */
2 /*
3 Pace University CS610
4 Yakshita Rakholiya
5 Project-1 @Dr.Lixin Tao @Kai Wang
6 */
7
8 #include <stdlib.h>
9
10 int i;
11 int Sum = 0;
12
13 main() {
14     for(i = 1; i<=100; i++)
15         Sum += i;
16     cout << "sum = " << sum;
17 }

*run
sum = 5050

SEQUENTIAL EXECUTION TIME: 1829
PARALLEL EXECUTION TIME: 1829
SPEEDUP: 1.00
NUMBER OF PROCESSORS USED: 1
```

- Develop and run a program that prompts the user to enter a positive integer n , and then calculate the value of n factorial $n! =$ multiplication of all integers between 1 and n and print the value $n!$ on the screen.

→ screen capture of the value of n factorial.



The screenshot shows a window titled "Select C:\parallel\cstar.exe". The main content area displays the following text:

```
Program Successfully Compiled

To View a Complete Program Listing, See File LISTFILE.TXT

*view
1 /* PROGRAM to calculate the value of n factorial. */
2 /*
3 Pace University CS610
4 Yakshita Rakholiya
5 Project-1 @Dr.Lixin Tao @Kai Wang
6 */
7 #include <stdlib.h>
8
9 main() {
10     int n = 5;
11     cout << "n = " << n << endl;
12     int Factorial = 1;
13     int i = 1;
14
15     while(i <= n) {
16         Factorial = Factorial*i;
17         i++;
18     }
19     cout << "n! =\t" << Factorial;
20
21
22 }
23
24

*output

*run
n =      5
n! =    120

SEQUENTIAL EXECUTION TIME: 131
PARALLEL EXECUTION TIME: 131
SPEEDUP:    1.00
NUMBER OF PROCESSORS USED: 1
```

I also upload the file of a folder in GitHub that containing my solution code.

GitHub Link: https://github.com/Yakshita1802/CS-610_peoject_1