Activity No. 4.3	
Hands-on Activity 4.3: Sorting and Searching Arrays	
Course Code: CPE 007	**Program:** Computer Engineering
Course Title: Programming Logic and Design	**Date Performed: 9-16-25**
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6. Output

1. Write a program that asks for a number from the user and prints which day of the week that number corresponds to. The days are indexed from 0 (Sunday) to 6 (Saturday). Before the program gets a value from the array, it must first check if the given day is greater than or equal to zero and less than 7. If not, it should print the message: "Error, no such day." Your version of the program must print the same result as the expected output.

Sample Input and Output:

Example input 0

Example output: Sunday

Example input 5

Example output: Friday

Example input 12

Example output: Error, no such day.

```
#include <iostream>
#include <string>
int main () {

    int days;
    std::string day[] = {"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"};

    std::cout << "Input from 1-6:  ";
    std::cin >> days ;

    if ( days >= 0 && days <=6){
        std::cout << day[days] << std::endl;
    } else {
        std::cout << "ERROR, no such day" << std::endl;
    }


    return 0;
}
```

```
Input from 1-6:  0
Sunday

--------------------------------
Process exited after 1.714 seconds with return value 0
Press any key to continue . . .
```

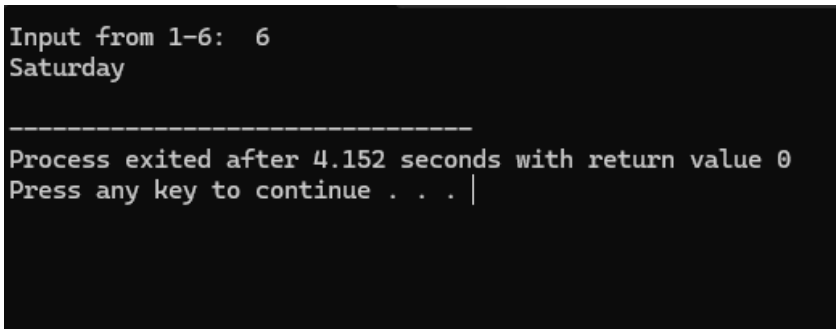
```
Input from 1-6:  1
Monday

--------------------------------
Process exited after 2.132 seconds with return value 0
Press any key to continue . . .
```

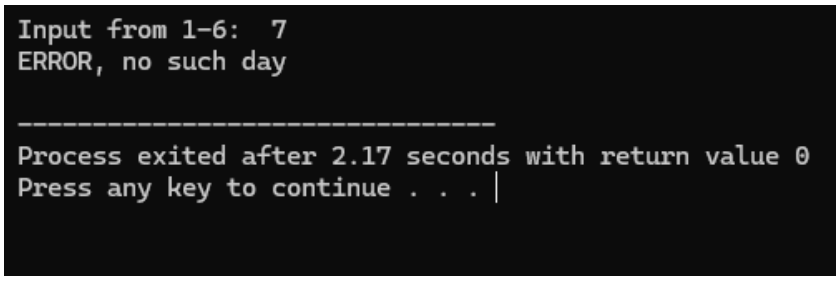
```
Input from 1-6:  2
Tuesday

--------------------------------
Process exited after 1.595 seconds with return value 0
Press any key to continue . . .
```

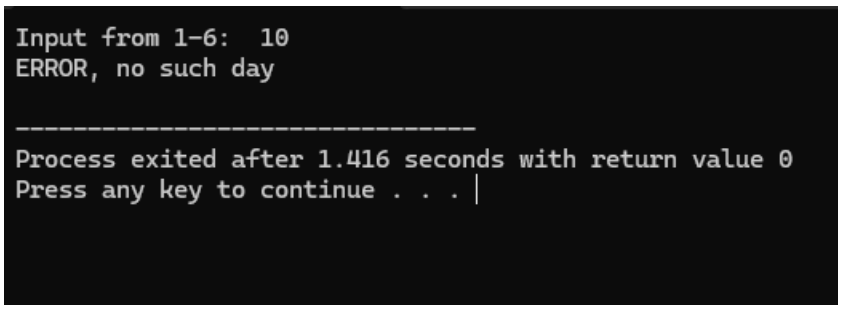
```
Input from 1-6:  3
Wednesday

--------------------------------
Process exited after 1.697 seconds with return value 0
Press any key to continue . . .
```

```
Input from 1-6:  4
Thursday

--------------------------------
Process exited after 2.578 seconds with return value 0
Press any key to continue . . .
```

```
Input from 1-6:  5
Friday

--------------------------------
Process exited after 2.322 seconds with return value 0
Press any key to continue . . .
```







Analysis:
In this programming, I included <iostream> and <string>. I had to include string to be declared in the scope for the code to compile without any errors. declare an integer “days” to store the user’s input. String days declares an array, it initializes the names of the days of the week. Cout is to print the message “Input 0-6:”. Cin is for the value being entered by the user. The if-else statement checks if the value is within the valid range of 0-6, if not a message will execute saying “ERROR, no such say”.

2. Write a program that creates a chessboard, sets all the pieces on it and then displays the contents of the board. Create a two-dimensional array, fill it with data and print a letter when a piece is on the field and a space when there is no piece. Store one letter for one piece. For now, we don't need any information about the color of the pieces. The starting positions (with letters which symbolize each piece) for all pieces are: The rooks (R) are placed on the outside corners, right and left edge (white on the 1st and black on the 8th line). The knights (N) are placed immediately inside of the rooks. The bishops (B) are placed immediately inside of the knights. The queen (Q) is placed on the central square of the same color as that of the player: white queen on the white square and black queen on the black square. Both stand on the d rank: white queen on the d1 field and black queen on the d8 field. The king (K) takes the vacant spot next to the queen. The pawns (P - not the official symbol, but you need to print something) are placed one square in front of all of the other pieces. Your version of the program must print the same result as the expected output.

```
R N B Q K B N R
P P P P P P P P



P P P P P P P P
R N B Q K B N R
```

```cpp
#include <iostream>

int main () {
    char board[8][8];

    for (int i = 0; i < 8; ++i) {
        for (int j = 0; j < 8; ++j) {
            board[i][j] = ' ';
        }
    }


    for (int j = 0; j < 8; ++j) {
        board[1][j] = 'P';
        board[6][j] = 'P';
    }


    board[0][0] = 'R';
    board[0][7] = 'R';
    board[7][0] = 'R';
    board[7][7] = 'R';


    board[0][1] = 'N';
    board[0][6] = 'N';
    board[7][1] = 'N';
    board[7][6] = 'N';
```

```
    board[0][2] = 'B';
    board[0][5] = 'B';
    board[7][2] = 'B';
    board[7][5] = 'B';


    board[0][3] = 'Q';
    board[7][3] = 'Q';


    board[0][4] = 'K';
    board[7][4] = 'K';

    for (int i = 7; i >= 0; --i){
        for (int j = 0; j < 8; ++j) {
            std::cout << board[i][j] << " ";
        }
        std::cout << std::endl;
    }

    return 0;

}
```

```
R N B Q K B N R
P P P P P P P P




P P P P P P P P
R N B Q K B N R

--------------------------------
Process exited after 0.05911 seconds with return value 0
Press any key to continue . . .
```

Analysis : First I initialized the board, then with the help of searching I figured out how to place the pawns, I had to code them one by one, where it is placed and which row. And then, to display the chess board by using the for loop, to add a space in between the chess pieces, I had to put " " after I displayed the board. To be honest, I'm still figuring out how to

use the for loop, I don’t get why it has less than symbols and uses ++i or - -i, but still I was able to get the program, I somehow get it but also I don’t.

7. Supplementary Activity

8. Conclusion

I have grasped the basics, I just need to have more practice and understand C++ more. I have to build my basics, cout, cin, string, if and else, for loop, bubble sort and etc. Explore more, how are the spaces are made, why do we use && , to memorise, is to understand the symbols. How they are placed and how are for loop uses its standard.

I thought about how I did in this activity, and to be honest, I didn't do well, but I did well enough to pass this code. I have to study more, manage my time so I can do it all, my assessments and what I want to study.