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# REPORT

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I faced a lot of challenges in this assignment. Safe to say it was very hard and frustrating that I gave up many times. But finally fixed it after the deadline extension. So following are the few errors I faced (couldn't take screenshots of all of them):

- Reading the file was a headache because I didn't know how to access the empty spaces. Later I realized that it will be a null value because it was not an empty string as I thought. So then I fixed it.

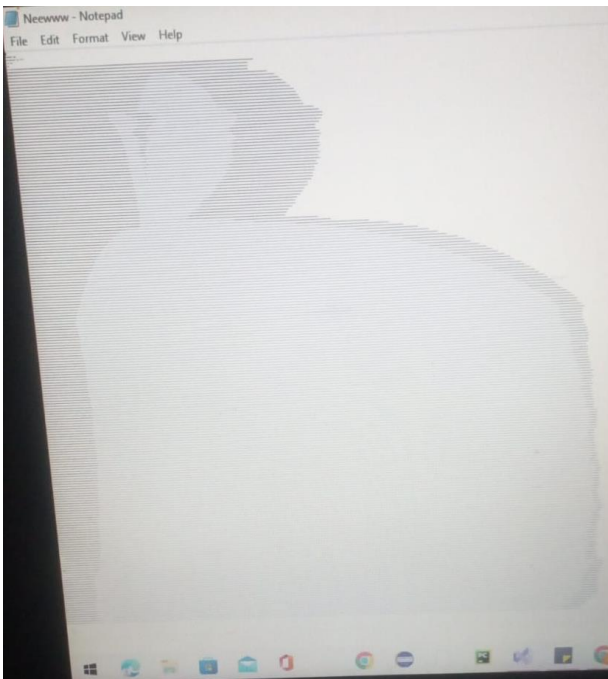
Error:



## Fixed code:

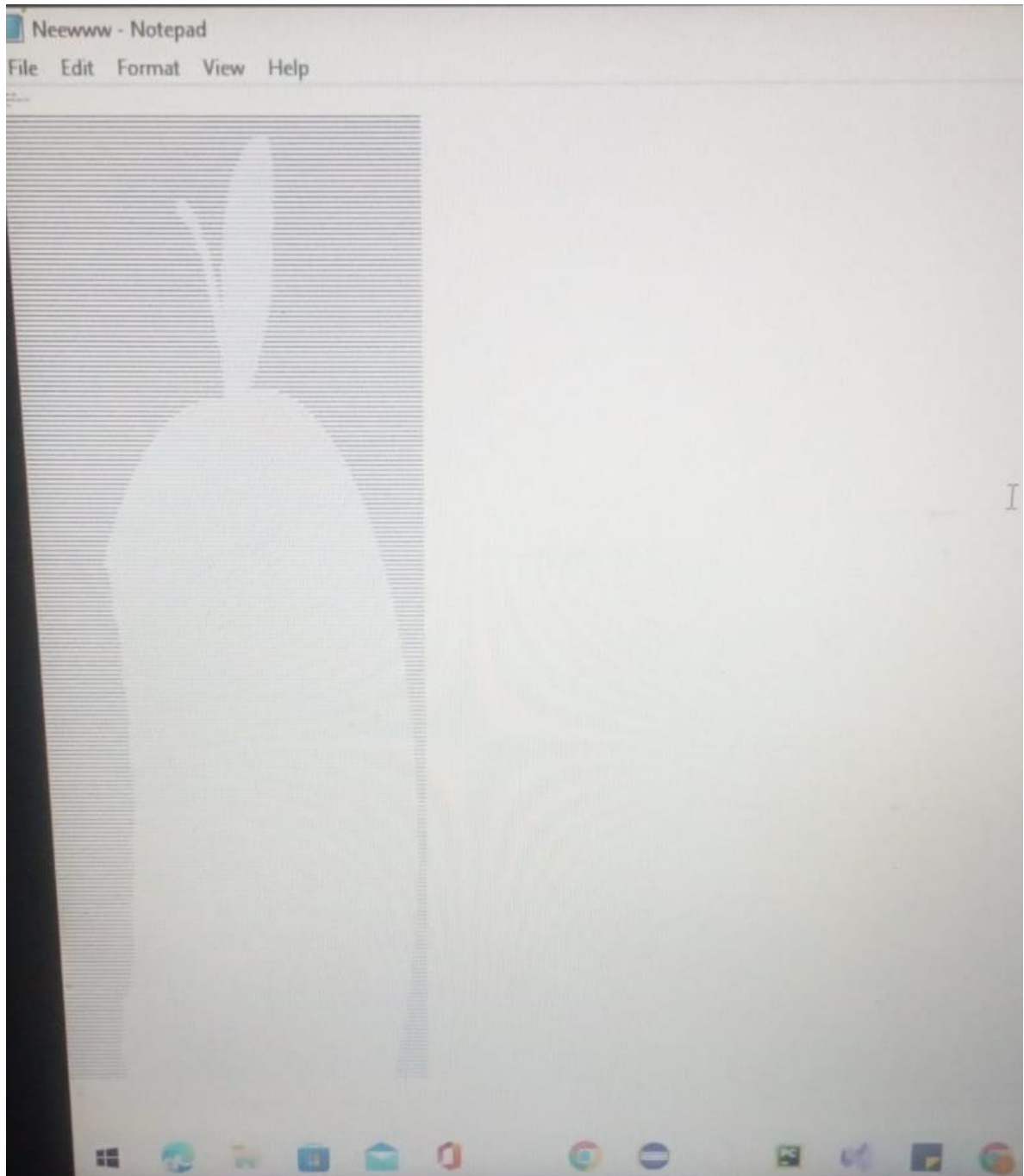
```
{  
  
    fin >> n;  
  
    if (n == NULL) {  
        arr[i][j] = 0;  
        off += 1;  
    }  
    else {  
        arr[i][j] = pixel;  
        size++;  
        on += 1;  
    }  
}
```

- And also I had to count the words at the start of the PGM file to store the pixel, rows, and columns. So that was a bit difficult but not a hassle.
- To save the file as a new PGM file, if I stored it as 255 pixels, the image would be distorted as shown.



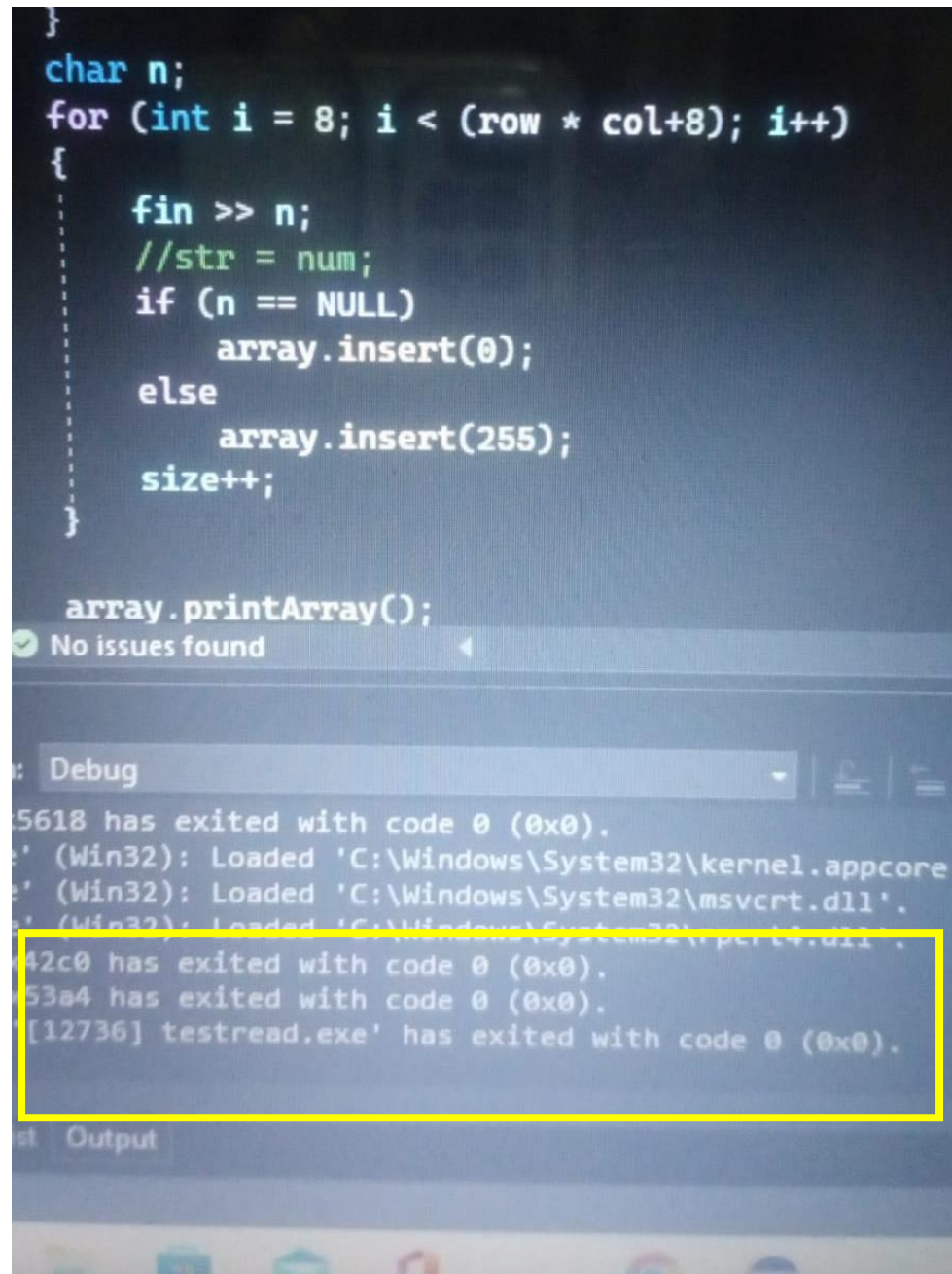
But if we store it as 1 and 0, the image is perfect as shown below.

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- Hence, when saving the file, I save it as 0 and 1 so that the original shape is intact.

- There were many times when my code exited



```
char n;  
for (int i = 8; i < (row * col+8); i++)  
{  
    fin >> n;  
    //str = num;  
    if (n == NULL)  
        array.insert(0);  
    else  
        array.insert(255);  
    size++;  
}  
  
array.printArray();
```

✓ No issues found

Debug

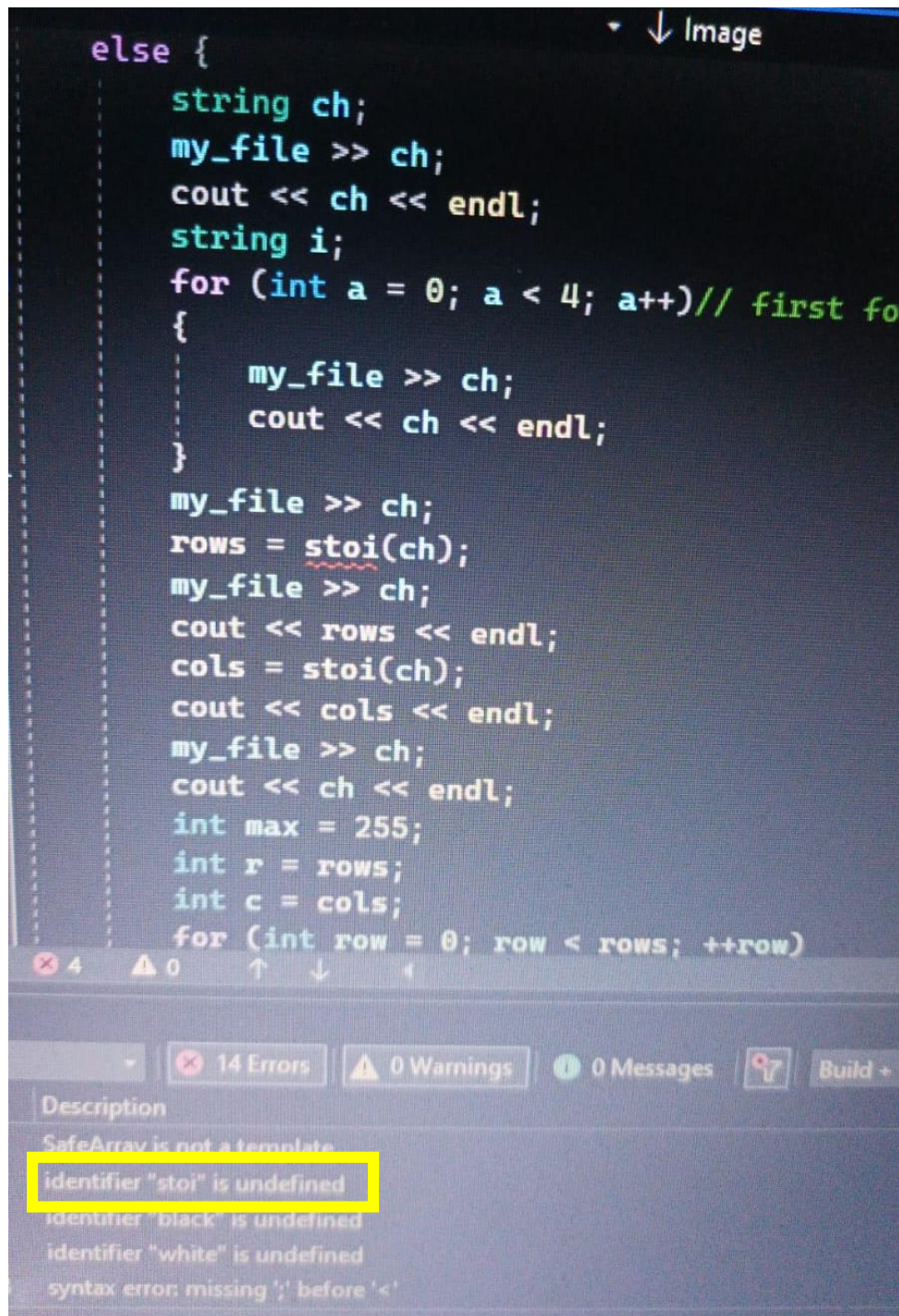
5618 has exited with code 0 (0x0).  
(Win32): Loaded 'C:\Windows\System32\kernel.appcore.  
(Win32): Loaded 'C:\Windows\System32\msvcrt.dll'.  
(Win32): Loaded 'C:\Windows\System32\user32.dll'.  
42c0 has exited with code 0 (0x0).  
53a4 has exited with code 0 (0x0).  
[12736] testread.exe' has exited with code 0 (0x0).

with code zero. This was a big problem to solve but I later figured that all my files should be imported and must be present in the directory I'm working in.

- I had to use the function `stolic()` from the string library(which I forgot to add as you can see below.



Otherwise, converting the string of rows and columns to integer was being difficult.



```
else {  
    string ch;  
    my_file >> ch;  
    cout << ch << endl;  
    string i;  
    for (int a = 0; a < 4; a++)// first for  
    {  
        my_file >> ch;  
        cout << ch << endl;  
    }  
    my_file >> ch;  
    rows = stoi(ch);  
    my_file >> ch;  
    cout << rows << endl;  
    cols = stoi(ch);  
    cout << cols << endl;  
    my_file >> ch;  
    cout << ch << endl;  
    int max = 255;  
    int r = rows;  
    int c = cols;  
    for (int row = 0; row < rows; ++row)
```

14 Errors 0 Warnings 0 Messages

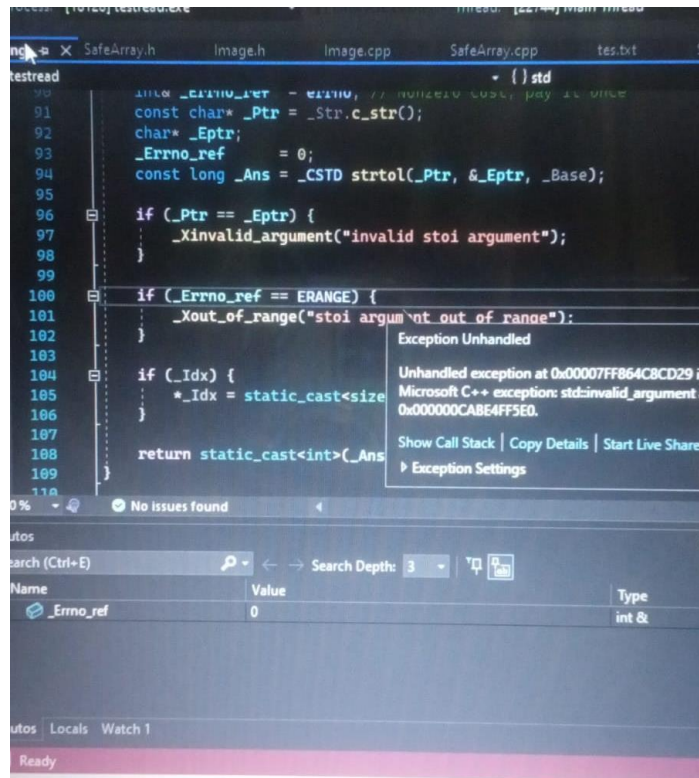
Description

- SafeArray is not a template
- identifier "stoi" is undefined
- identifier "black" is undefined
- identifier "white" is undefined
- syntax error: missing ';' before '<'

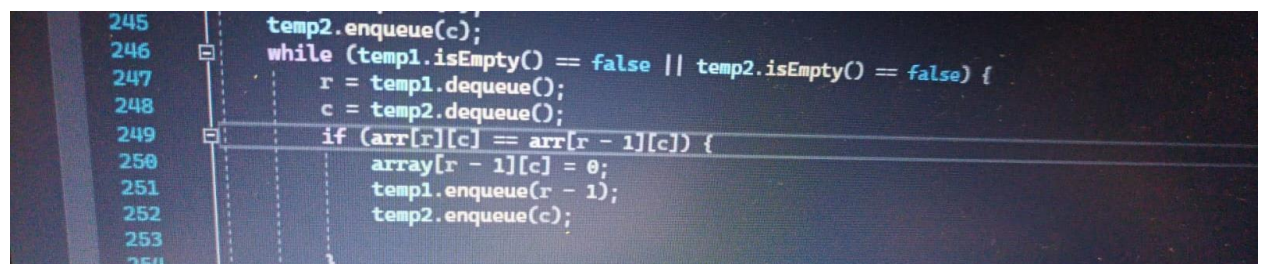
- One error just straight took me to some string file where it gave an exception error. I don't even know how I fixed that but it did fix

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after I messed with the code a bit.



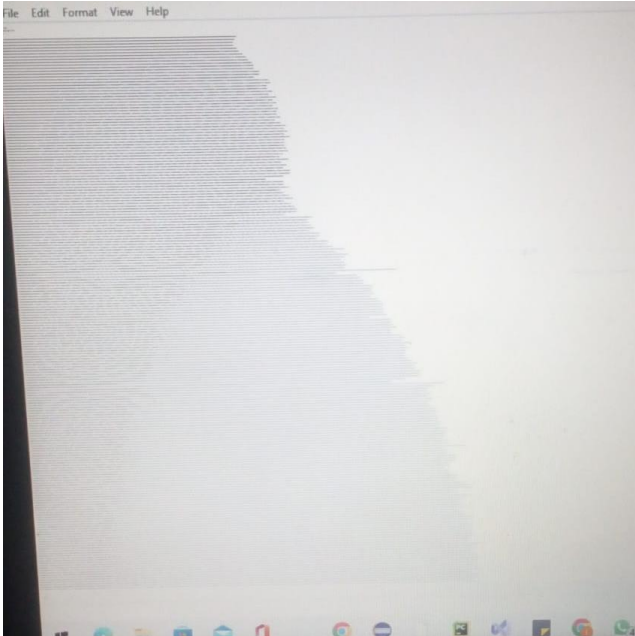
- For queue and stack images in q2 and q3, the image was not right many times cause my if else if conditions were not specific and accurate.



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Later, I added put error checks to it and then it got fixed.

- Since the queue was made with nodes, its size can increase later. But I can't do that with a stack array so it gave me an incomplete

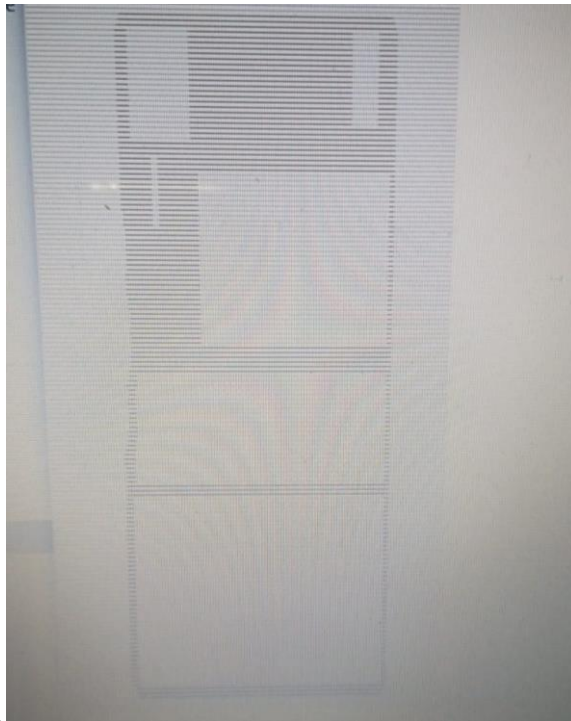


image.

- This I fixed my increasing the size of each stack array initially to the size of the whole image.