

Assignment 02

CSE-0302 Summer 2021

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Abstract—This works denotes the assignment of course cse-0302.

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Index Terms—The word mostly used in my report. C and C++.

I. INTRODUCTION

This is a c++ programming project work. In this problem I use some tag of C and C++ language.

II. LITERATURE REVIEW

This problem is about how can we remove space, new line and comments etc. from a input file. it's easy to remove those things by some C and C tags.

III. PROPOSED METHODOLOGY

Firstly I learned C and C++ for solve the assignment and then I execute the language in my Code blocks IDE.

A. Equations

IV. CONCLUSION AND FUTURE WORK

None

ACKNOWLEDGMENT

I would like to thank my honourable **Khan Md. Hasib Sir** for his time, generosity and critical insights into this project.

REFERENCES

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- [2] Grune, D., Van Reeuwijk, K., Bal, H. E., Jacobs, C. J., Langendoen, K. (2012). Modern compiler design. Springer Science Business Media.
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```
assignment2.cpp - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help

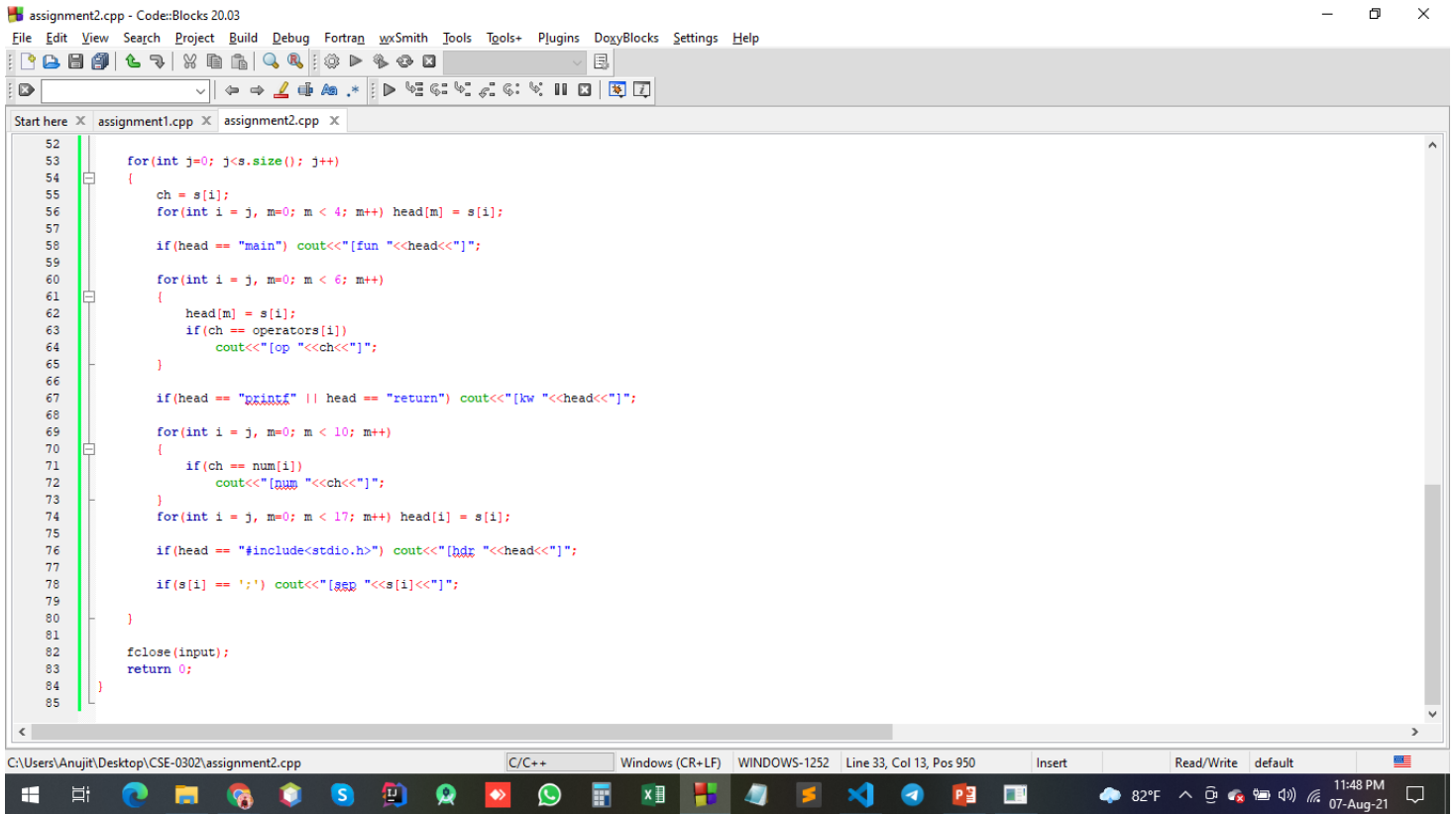
1 // Anujit Deb //
2 #include <iostream>
3 using namespace std;
4 #define optimize() ios_base::sync_with_stdio(0);cin.tie(0);cout.tie(0);
5 #define endl '\n'
6
7 int isKeyword(string buffer)
8 {
9     string keywords[32] = {"auto","break","case","char","const","continue","default",
10     "do","double","else","enum","extern","float","for","goto",
11     "if","int","long","register","return","short","signed",
12     "sizeof","static","struct","switch","typedef","union",
13     "unsigned","void","volatile","while"};
14
15     int i, flag = 0;
16     for(i = 0; i < 32; ++i)
17     {
18         if(keywords[i] == buffer)
19         {
20             flag = 1;
21             break;
22         }
23     }
24     return flag;
25 }
26
27 int main()
28 {
29     optimize();
30     string buffer;
31     string operators = {"+","-","*","/"};
32     string num = {"0123456789"};
33     char ch;
34     FILE *fp;
35     int i,j=0;
```

Fig. 1. Code

```
assignment2.cpp - Code::Blocks 20.03
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36 fp = fopen("output.txt","r");
37 if(fp == NULL)
38 {
39     printf("error while opening the file\n");
40     return 0;
41 }
42 FILE *input;
43 string s, head;
44 char p;
45 input = fopen("output.txt","r");
46
47 while(!feof(input))
48 {
49     p = fgetc(input);
50     s+=p;
51 }
52
53 for(int j=0; j<s.size(); j++)
54 {
55     ch = s[j];
56     for(int i = j, m=0; m < 4; m++) head[m] = s[i];
57     if(head == "main") cout<<"[fun "<<head<<"]";
58     for(int i = j, m=0; m < 6; m++)
59     {
60         head[m] = s[i];
61         if(ch == operators[i])
62             cout<<"[op "<<ch<<"]";
63     }
64     if(head == "printf" || head == "return") cout<<"[kw "<<head<<"]";
65
66     for(int i = j, m=0; m < 10; m++)
67     {
68         head[m] = s[i];
69         if(ch == num[i])
70             cout<<"[num "<<head<<"]";
71     }
72 }
```

Fig. 2. Code



The image shows a screenshot of a C++ code editor window titled "assignment2.cpp - Code::Blocks 20.03". The editor displays a C++ program that processes input tokens and prints their category and value. The code is as follows:

```
52 for(int j=0; j<s.size(); j++)
53 {
54     ch = s[j];
55     for(int i = j, m=0; m < 4; m++) head[m] = s[i];
56     if(head == "main") cout<<"[fun " <<head<<"]";
57     for(int i = j, m=0; m < 6; m++)
58     {
59         head[m] = s[i];
60         if(ch == operators[i])
61             cout<<"[op " <<ch<<"]";
62     }
63     if(head == "exit" || head == "return") cout<<"[kw " <<head<<"]";
64     for(int i = j, m=0; m < 10; m++)
65     {
66         if(ch == num[i])
67             cout<<"[num " <<ch<<"]";
68     }
69     for(int i = j, m=0; m < 17; m++) head[i] = s[i];
70     if(head == "#include<stdio.h>") cout<<"[hdr " <<head<<"]";
71     if(s[i] == ';') cout<<"[sep " <<s[i]<<"]";
72 }
73 fclose(input);
74 return 0;
75 }
```

The code is written in C++ and uses the `cout` and `endl` functions for output. It processes input tokens and prints their category and value. The code is organized into several loops and conditional statements. The first loop iterates over the input string `s` and processes each token. The second loop iterates over the token and checks if it is a keyword, operator, or number. The third loop iterates over the token and checks if it is a header or separator. The code is compiled and run using Code::Blocks 20.03.

Fig. 3. Code