1. **To identify tokens:**

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| #include<iostream>  #include<fstream>  #include<stdlib.h>  #include<string.h>  #include<ctype.h>    using namespace std;    int isKeyword(char buffer[]){  char keywords[32][10] = {"auto","break","case","char","const","continue","default",  "do","double","else","enum","extern","float","for","goto",  "if","int","long","register","return","short","signed",  "sizeof","static","struct","switch","typedef","union",  "unsigned","void","volatile","while"};  int i, flag = 0;    for(i = 0; i < 32; ++i){  if(strcmp(keywords[i], buffer) == 0){  flag = 1;  break;  }  }    return flag;  }    int main(){  char ch, buffer[15], operators[] = "+-\*/%=";  ifstream fin("program.txt");  int i,j=0;    if(!fin.is\_open()){  cout<<"error while opening the file\n";  exit(0);  }    while(!fin.eof()){     ch = fin.get();    for(i = 0; i < 6; ++i){     if(ch == operators[i])     cout<<ch<<" is operator\n";     }       if(isalnum(ch)){     buffer[j++] = ch;     }     else if((ch == ' ' || ch == '\n') && (j != 0)){     buffer[j] = '\0';     j = 0;       if(isKeyword(buffer) == 1)     cout<<buffer<<" is keyword\n";     else     cout<<buffer<<" is identifier\n";     }    }    fin.close();    return 0;  } |

**if(isalnum(ch)){**

**buffer[j++] = ch;**

**}**

**else if((ch == ' ' || ch == '\n') && (j != 0)){**

**buffer[j] = '\0';**

**j = 0;**

**input: void main()**

**j=2**

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| --- | --- | --- | --- | --- | --- | --- |
| **v** | **o** |  |  |  |  |  |
| **Buffer[0]** | **Buffer[1]** | **Buffer[2]** | **Buffer[3]** | **Buffer[4]** | **Buffer[5]** | **Buffer[6]** |