

Assignment-1

Q1. Write a C program to check if a given string is keyword or not.

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
#include<string.h>
```

```
#include<ctype.h>
```

```
int iskeyword(char buffer[]){
```

```
    int i, flag = 0;
```

```
    for(i = 0; i < 32; ++i){
```

```
        if(strcmp(keywords[i], buffer) == 0){
```

```
            flag = 1;
```

```
            break;
```

```
        }
```

```
    }
```

```
    return flag;
```

```
}
```

```
int main(){
```

```
    FILE *fp;
```

```
    char ch, buffer[100000];
```

```
    int i, j=0;
```

```
    fp = fopen("2.c", "r");
```

```
    if(fp == NULL){
```

```
        printf("error while opening the file\
```

```
\");
```

```
        exit(0);
```

```
    }
```

```

while((ch = fgetc(fp)) != EOF){

    if(isalnum(ch)){
        buffer[j++] = ch;
    }
    else if((ch == ' ' || ch == '\n') && (j != 0)){
        buffer[j] = '\\0';
        j = 0;
        if(iskeyword(buffer) == 1)
            printf("\\'%s is keyword\\n", buffer);
    }
}

fclose(fp);
return 0;
}

```

Q2. Write a C program to detect tokens in a C program.

```

#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#include<ctype.h>

```

```

int iskeyword(char buffer[]){
    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[100000], operators[] = "+-*/%=";
    FILE *fp;

    int i, j = 0;
    fp = fopen("1.c", "r");

    if(fp == NULL){
        printf("error while opening the file\n");
        exit(0);
    }

    while((ch = fgetc(fp)) != EOF){
        for(i = 0; i < 6; ++i){
            if(ch == operators[i])
                printf("%c is operator\n", ch);
        }
        if(isalnum(ch)){
            buffer[j++] = ch;
        }
        else if((ch == ' ' || ch == '\n') && (j != 0)){
            buffer[j] = '\0';
            j = 0;
            if(iskeyword(buffer) == 1)

```

```
        printf("\'%s is keyword\  
\", buffer);  
    }  
}  
fclose(fp);  
return 0;  
}
```