

04/10/24

## ASSIGNMENT 6

## \* AIM:

Write a lex program for the following:

- Reads text from an input file that contains URLs
- Count the URLs ending with .com, .edu and .org
- Display the counts on the screen
- Store the URLs in 3 different files, one for each URL

## \* CODE:

```

%{
#include <stdio.h>
#include <stdlib.h>

int com_count = 0;
int edu_count = 0;
int org_count = 0;

FILE *com_file;
FILE *edu_file;
FILE *org_file;

}%

%%

[a-z0-9._%+-]+.com {
    fprintf(com_file, "%s\n", yytext);
    com_count++;
}

[a-z0-9._%+-]+.edu {
    fprintf(edu_file, "%s\n", yytext);
    edu_count++;
}

[a-z0-9._%+-]+.org {
    fprintf(org_file, "%s\n", yytext);
    org_count++;
}

.      ;

%%

int yywrap() {
    return 1;
}

int main(int argc, char **argv) {
    if (argc != 2) {
        fprintf(stderr, "Usage: %s <input_file>\n", argv[0]);
        return 1;
    }
    FILE *links=fopen(argv[1], "r");
    yyin=links;
    com_file = fopen("urls_com.txt", "w");
    edu_file = fopen("urls_edu.txt", "w");

```

```
org_file = fopen("urls_org.txt", "w");

if (!com_file || !edu_file || !org_file) {
    perror("Error opening output files");
    return 1;
}
yylex();

printf(".com URLs: %d\n", com_count);
printf(".edu URLs: %d\n", edu_count);
printf(".org URLs: %d\n", org_count);

fclose(com_file);
fclose(edu_file);
fclose(org_file);

return 0;
}
```