Compiler Design _ HW 0 6

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40747031S_hw06.l :

```
%{
#include <string.h>
%}
%%

[\t ]+       /* ignore white space */ ;

test          { printf("%s    <- test\n", yytext); }

\"[^"\n]*["\n] {
    if(yytext[strlen(yytext)-1]!='"'){
        printf("%s<<<it doesn't have a close quotation mark>>>\n", yytext);
    }
    else{
        printf("%s<<<it is a correct quoted string>>> ", yytext);
    }
}

[a-zA-Z]+ { ECHO; /* normal default anyway */ }

\&.|\n       { ECHO; /* normal default anyway */ }

%%

main()
{
```

gen_bigc.c

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

int main(int argc, char *argv[]){
    int i =0 ;
    int line_n = atoi(argv[1]);
    char text1[]="#include<stdio.h>\n\nint main(){\n\tchar c[3]=\"0;\n\t";
    char text2[]="printf(";
    char text3[]=");";
    char text4[]="\n\tprintf(\"aaa\");\n\treturn 0;\n}\n";
    FILE *fp = NULL;
    fp = fopen("big.c", "w+");
    fprintf(fp,"%s", text1);
    for(i =0 ;i < line_n ;i++){
        fprintf(fp,"%s", text2);
        fprintf(fp,"%d", i);
        fprintf(fp,"%s", text3);
    }
    fprintf(fp,"%s", text4);
    fclose(fp);
    return 0;
}
```

normal.c

```
#include<stdio.h>

int main(){
    char c[3]="234";
    printf("%s",c);
    return 0;
}
```

```
$ lex 40747031s_hw6.l
$ gcc lex.yy.c -lfl -o 40747031s_hw6
$ ./40747031s_hw6 <normal.c
#include<stdio.h>

intmain(){
charc[3]="234"<<<it is a correct quoted string>>> ;
printf("%s"<<<it is a correct quoted string>>> ,c);
return0;
}
```

with wrong code

```
$ gcc gen_bigc.c -o gen_bigc
$ ./gen_bigc 3
$ cat big.c
#include<stdio.h>

int main(){
        char c[3]="0;
        printf(0);printf(1);printf(2);
        printf("aaa");
        return 0;
}
$ ./40747031s_hw6 < big.c
#include<stdio.h>

intmain(){
charc[3]="0;
<<<it doesn't have a close quotation mark>>>
printf(0);printf(1);printf(2);
printf("aaa"<<<it is a correct quoted string>>> );
return0;
}
$ 
```