A C source program with single and multiple line comments is given. As the first step toward compilation you need to remove the comments and white space (extra spaces, tabs and newline characters). Develop a program that takes as input file the given source program and produces a filtered file as stated above. The program must also display both the files.

Code

```c
#include <stdio.h>
int main(void)
{
    FILE *p1,*p2;
    char c;
    int flag1=0,flag2=0;
    p1 = fopen("input.c", "r");
    p2 = fopen("output.txt","w");
    if(!p1) printf("\nFile can't be opened!");
    else
    {
        while((c = fgetc(p1)) != EOF)
        {
            if(c=='\n' )
            {
                //flag1=1;
                continue;
            }
            if(c=='/' && flag1==0 )
            {
                flag1=1;
                continue;

            }
            if(c=='/' && flag1==1 )
            {
                flag1=0;
                continue;
            }
            if(c=='*' && flag2==0 )
            {
                flag2=1;
                continue;
            }
            //printf("%d",flag2);
            if(c!='*' && flag2==1 )
```

```c
            {
                continue;

            }
            if(c=='*' && flag2==1 )
            {
                //fputc('\n', p2);
                flag2=0;
                continue;

            }
            if(c==' ' )
            {
                //flag1=1;
                continue;
            }



            fputc(c, p2);
        }
    }
    fclose(p1);
    fclose(p2);
    p2 = fopen("output.txt","r");
    while((c=fgetc(p2))!=EOF)
        printf("%c",c);
    fclose(p2);
    return 0;
}
```

Input:
```c
#include<stdio.h>
int main(void)
{
// Single Line Comment
printf ("Hello");
/* Multi
 Line
Comment
```

```
*/
printf("World");
return 0;
}
```

Output:

```
#include<stdio.h>intmain(void){SingleLineCommentprintf("Hello");printf("World");return0;}
```