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**PC-D**

**Answer to the Question number:1**

```
#include <stdio.h>
#include <string.h>
int main()
{
    char str1[1000]=">Rosalind_6404";
    char str2[1000]="CCTGCGGAAGATCGGCACTAGAATAGCCAGAACCGTTTCTCTGAGGCTT";
    char str3[1000]=">Rosalind_5959";
    char str4[1000]="CCATCGGTAGCGCATCTTAGTCCAATTAAGTCCCTATCCAGGCGCTCC";
    char str5[1000]=">Rosalind_0808";
    char str6[1000]="CCACCCTCGTGGTATGGCTAGGCATTAGGAACCGGAGAACGCTTCAGA";
    char str7[1000]=">Rosalind_0809";
    char str8[1000]="AGCTATAG";
    char concat[1000];

    printf("Length of string 1 = %d \n",strlen(str1));
    printf("Length of string 2 = %d \n",strlen(str2));
    printf("Length of string 3 = %d \n",strlen(str3));
    printf("Length of string 4 = %d \n",strlen(str4));
    printf("Length of string 5 = %d \n",strlen(str5));
    printf("Length of string 6 = %d \n",strlen(str6));
    printf("Length of string 7 = %d \n",strlen(str7));
```

```
printf("Length of string 8 = %d \n",strlen(str8));

strcpy(concat,str1);

strcat(concat, str2);
strcat(concat, str3);
strcat(concat, str4);
strcat(concat, str5);
strcat(concat, str6);
strcat(concat, str7);
strcat(concat, str8);

printf("Final concat string = %s \n\n",concat);
printf("Length of concat string = %d \n\n",strlen(concat));

char *word;
word=strtok(concat,">");

printf("After performing tokenization of the final concatenated string using the symbol(>: ");

while(word!=NULL)
{
    printf("%s\n",word);
    word=strtok( NULL,">");
}

return 0;
}
```

## Output:

```
171     printf("Length of string 4 = %d \n", strlen(str4));
172     printf("Length of string 5 = %d \n", strlen(str5));
173     printf("Length of string 6 = %d \n", strlen(str6));
174     printf("Length of string 7 = %d \n", strlen(str7));
175     printf("Length of string 8 = %d \n", strlen(str8));
176
177     strcpy(concat_str1,
178 "D:\\VS_code_project\\C++ practice\\labTrisha.exe"
179
180 Length of string 1 = 14
181 Length of string 2 = 49
182 Length of string 3 = 14
183 Length of string 4 = 49
184 Length of string 5 = 14
185 Length of string 6 = 49
186 Length of string 7 = 14
187 Length of string 8 = 8
188 Final concat string = >Rosalind_6404CCTGCGGAAGATCGGCACTAGAAATAGCCAGAACCGTTTCTCTGAGGCTT>Rosalind_5959CCATCGGTAGCGCATCCTTAG
189 TCCAATTAAGTCCCTATCCAGGCGCTCC>Rosalind_0808CCACCCTCGTGGTATGGCTAGGCATTAGGAACCGGAGAACGCTTCAGA>Rosalind_0809AGCTATAG
190 Length of concat string = 211
191
192 After performing tokenization of the final concatenated string using the symbol(>): Rosalind_6404CCTGCGGAAGATCGGCACTAGAA
193 TAGCCAGAACCGTTTCTCTGAGGCTT
194 Rosalind_5959CCATCGGTAGCGCATCCTTAGTCCAATTAAGTCCCTATCCAGGCGCTCC
195 Rosalind_0808CCACCCTCGTGGTATGGCTAGGCATTAGGAACCGGAGAACGCTTCAGA
196 Rosalind_0809AGCTATAG
197
198 Process returned 0 (0x0)   execution time : 0.551 s
199 Press any key to continue.
200
201
202
203
204
205
```

**Answer to the Question number:2**

**(A)**

```
#include<stdio.h>
#include<string.h>
int main()
{
    char s[100]="return 0";

    char *word;
    word=strtok(s," ;=*/");

    while(word!=NULL)
    {
        printf("%s\n",word);
        word=strtok( NULL," ;=*/");
    }

    return 0;
}
```

**Output:**

```

#include<stdio.h>
#include<string.h>
int main()
{
    char s[100]="return 0";

    char *word;
    word=strtok(s, " ;=*/");

    while(word!=NULL)
    {
        printf("%s\n",word);
        word=strtok( NULL, " ;=*/");
    }

    return 0;
}

```

```

return
0

Process returned 0 (0x0)   execution time : 0.895 s
Press any key to continue.

```

(B)

```

#include<stdio.h>

#include<string.h>

int main()
{
    char s[100]="int a=b*c;";

    char *word;

    word=strtok(s, " ;=*/");
    printf("Data type: %s\n",word);
    printf("Variables are: \n");
    while(word!=NULL)
    {
        word=strtok( NULL, " ;=*/");
        printf("%s\n",word);
    }

    return 0;
}

```

```
}
```

### Output:

```
#include<stdio.h>
#include<string.h>
int main()
{
    char s[100]="int a=b*c;";

    char *word;

    word=strtok(s," ;=*/");
    printf("Data type: %s\n",word);
    printf("Variables are: \n");
    while(word!=NULL)
    {
        word=strtok( NULL," ;=*/");
        printf("%s\n",word);
    }

    return 0;
}
```

```
Data type: int
Variables are:
a
b
c

Process returned 0 (0x0)   execution time : 0.405 s
Press any key to continue.
```

(c)

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

```
int main()
```

```
{
```

```
    char s[100]="result=first+second/third";
```

```
    char *word;
```

```
    word=strtok(s," ;=*/");
```

```
    while(word!=NULL)
```

```
    {
```

```
        printf("%s\n",word);
```

```
        word=strtok( NULL," ;=*/");
```

```

    }

    return 0;
}

```

### Output:

```

#include<stdio.h>
#include<string.h>
int main()
{
    char s[100]="result=first+second/third";
    char *word;
    word=strtok(s," ;*+/" );
    while(word!=NULL)
    {
        printf("%s\n",word);
        word=strtok( NULL," ;*+/" );
    }
    return 0;
}

```

```

result
first
second
third
Process returned 0 (0x0)   execution time : 0.511 s
Press any key to continue.

```

### Answer to the Question number:3

```

#include <string.h>

#include <stdio.h>

#include <stdlib.h>

void commentFinding(char);

void lineComment();

FILE *file1, *file2;

int main()
{
    char ch;

    file1 = fopen("inputSanjida.txt", "r");

    file2 = fopen("outputRahmanTrisha.txt", "w");

```

```

while ((ch = fgetc(file1)) != EOF)
{
    commentFinding(ch);
}
fclose(file1);
fclose(file2);
printf("\n");
return 0;
}
void commentFinding(char ch)
{
    char ch2;
    if (ch == '#')
    {
        ch2 = fgetc(file1);
        if (ch2 != '#')
        {
            lineComment();
        }
        else
        {
            fputc(ch, file2);
            fputc(ch2, file2);
        }
    }
    else
    {
        fputc(ch, file2);
    }
}

```



```
    }  
}  
void lineComment()  
{  
    char e;  
    while ((e = fgetc(file1)) != EOF)  
    {  
        if (e == '\\n')  
        {  
            return;  
        }  
    }  
}
```

**Output:**

