

Information Security Practical Assignment

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7. Implement rail fence cipher transposition operation.

Code:

```
#include<stdio.h>
#include<string.h>
#include<stdlib.h>
main()
{
    int i,j,len,rails,count,code[100][1000];
    char str[1000];
    printf("Enter a Secret Message \n");
    gets(str);
    len=strlen(str);
    printf("Enter number of rails \n");
    scanf("%d",&rails);
    for(i=0;i<rails;i++)
    {
        for(j=0;j<len;j++)
        {
            code[i][j]=0;
        }
    }
    count=0;
    j=0;
    while(j<len)
    {
        if(count%2==0)
        {
            for(i=0;i<rails;i++)
            {
                //strcpy(code[i][j],str[j]);
                code[i][j]=(int)str[j];
                j++;
            }
        }
        else
        {
            for(i=rails-2;i>0;i--)
            {
                code[i][j]=(int)str[j];
                j++;
            }
        }
    }
}
```

```
count++;  
}  
  
for(i=0;i<rails;i++)  
{  
    for(j=0;j<len;j++)  
    {  
        if(code[i][j]!=0)  
            printf("%c",code[i][j]);  
    }  
  
}  
}
```

Output:



```
PS C:\Users\91740\OneDrive\Desktop\Info> cd "C:\Users\91740\OneDrive\Desktop\Info\" ; if ($?) { g++ practical7.cpp -o practical7 } ; if ($?) { .\practical7 }  
Enter a Secret Message  
due olmo ve  
Enter number of rails  
3  
do u loveme  
PS C:\Users\91740\OneDrive\Desktop\Info>
```