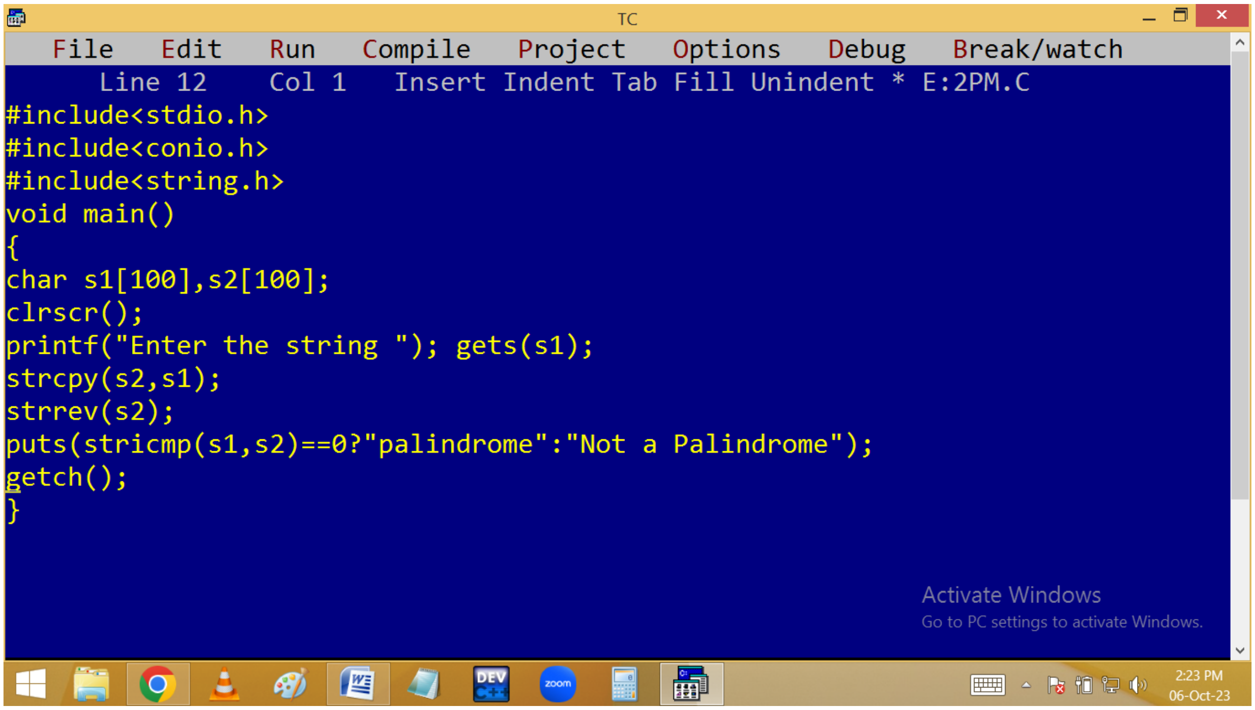
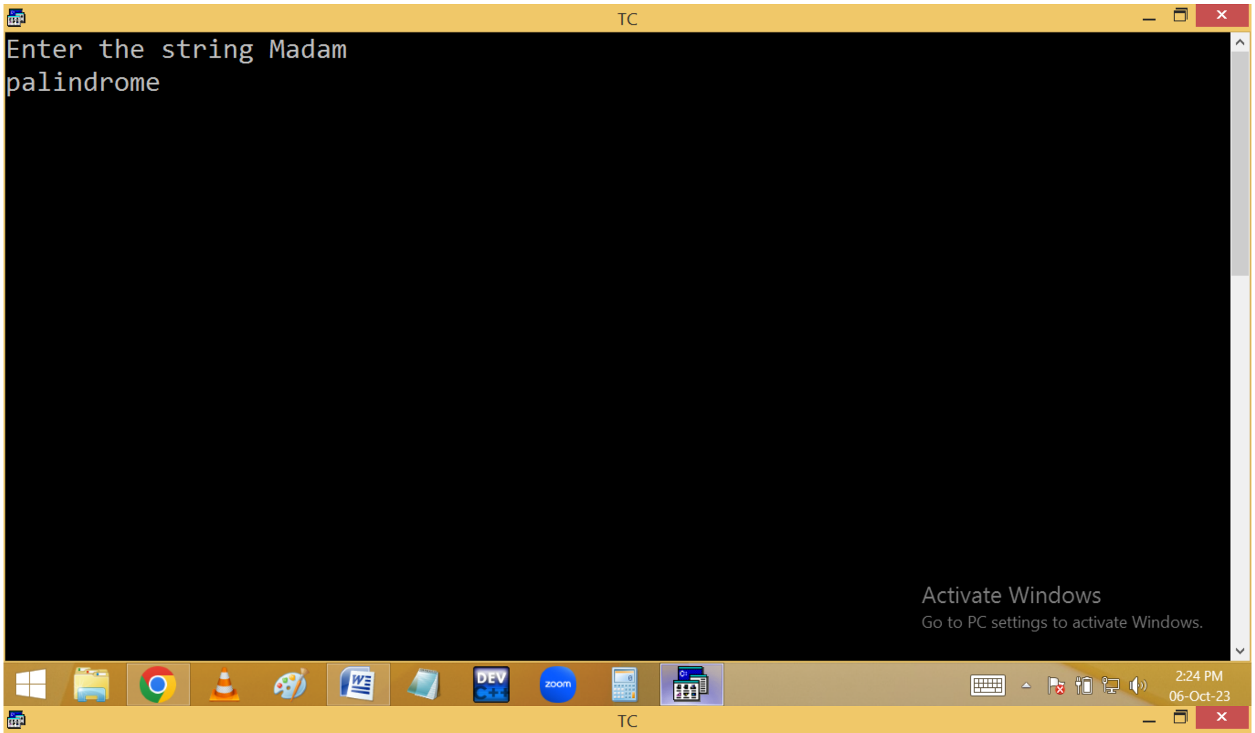
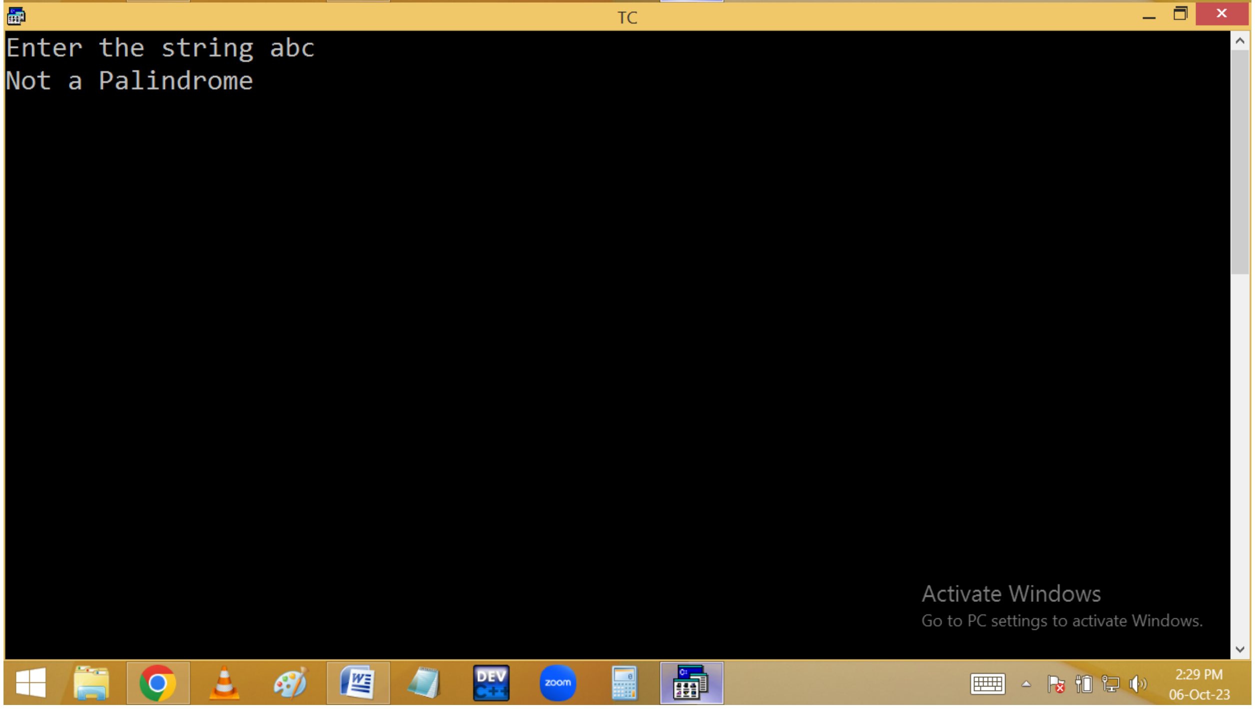
Finding palindrome using library functions:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 1 Insert Indent Tab Fill Unindent * E:2PM.C
Activate Windows
Go to PC settings to activate Windows.
2:23 PM
06-Oct-23

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char s1[100],s2[100];
clrscr();
printf("Enter the string "); gets(s1);
strcpy(s2,s1);
strrev(s2);
puts(stricmp(s1,s2)==0?"palindrome":"Not a Palindrome");
getch();
}
```



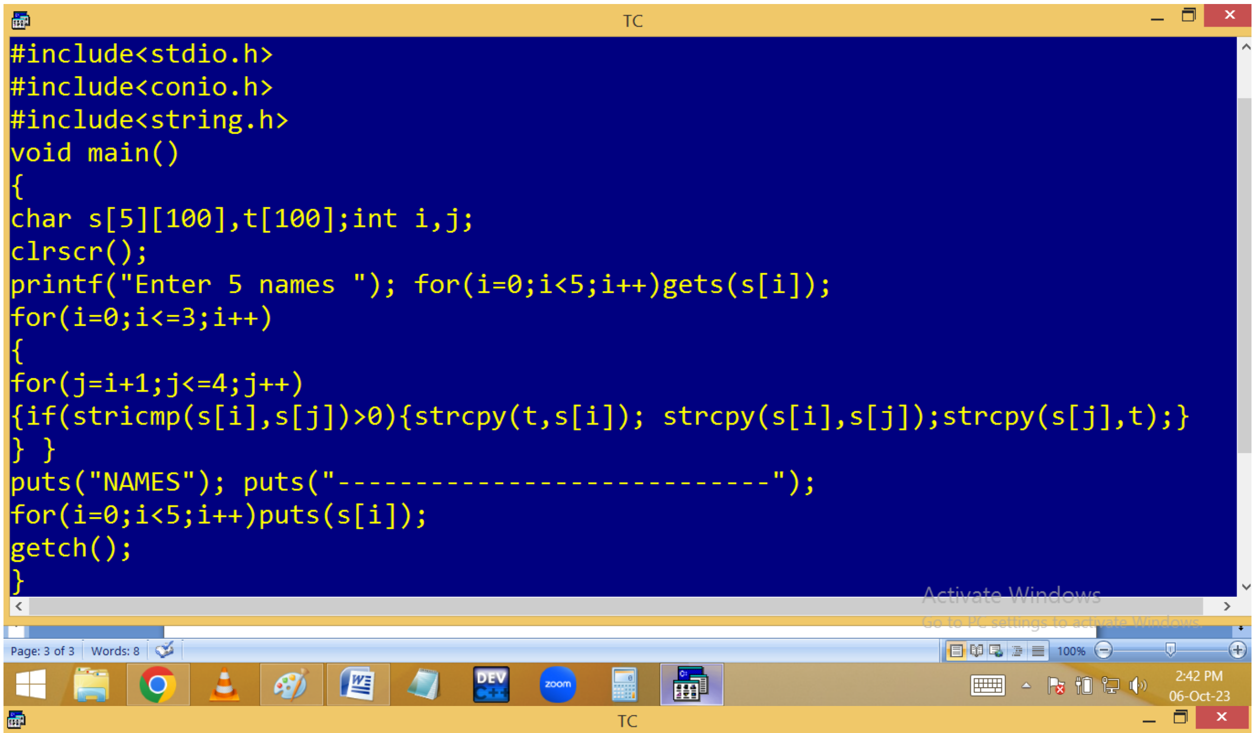
```
Enter the string Madam
palindrome
```



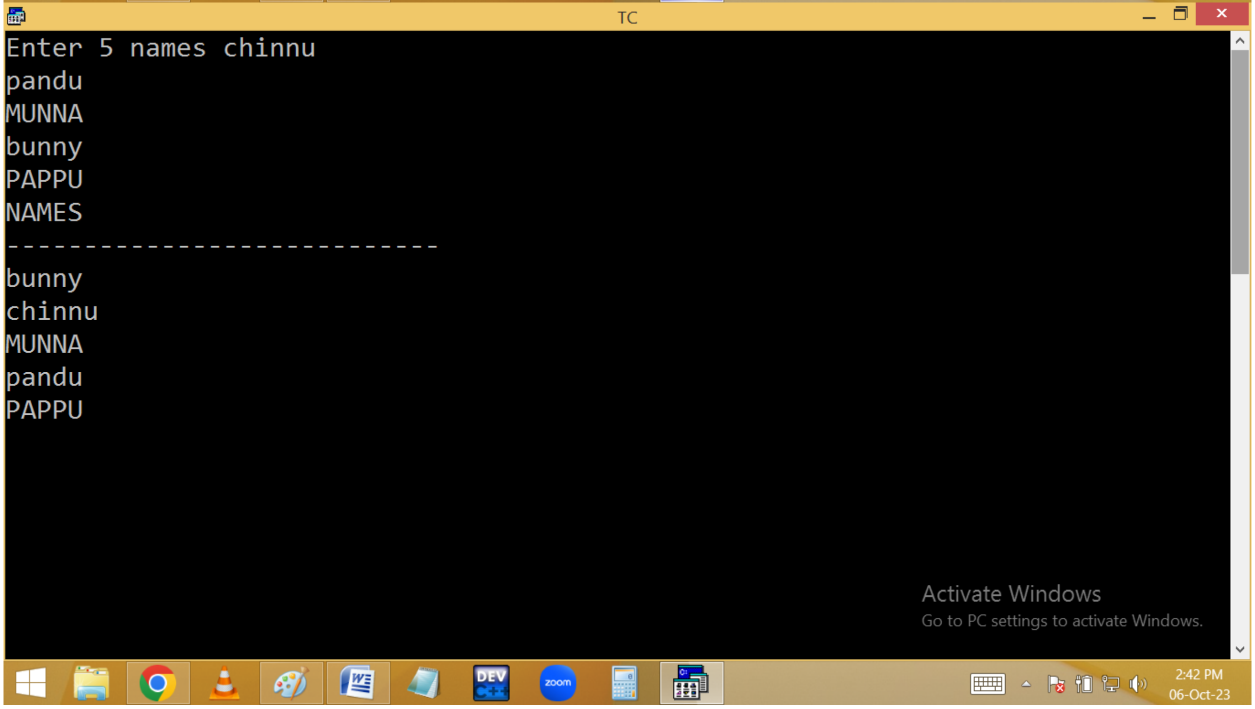
```
Enter the string abc
Not a Palindrome
```

Sorting of strings:

s[0]	~~nitin~~ ~~gopi~~ aruna
s[1]	~~gopi~~ ~~nitin~~ ~~gopi~~ gopal
s[2]	~~aruna~~ ~~gopi~~ ~~nitin~~ gopi
s[3]	~~gopal~~ gopi nitin



```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char s[5][100],t[100];int i,j;
clrscr();
printf("Enter 5 names "); for(i=0;i<5;i++)gets(s[i]);
for(i=0;i<=3;i++)
{
for(j=i+1;j<=4;j++)
{if(stricmp(s[i],s[j])>0){strcpy(t,s[i]); strcpy(s[i],s[j]);strcpy(s[j],t);}
} }
puts("NAMES"); puts("----------------------------");
for(i=0;i<5;i++)puts(s[i]);
getch();
}
```



```
Enter 5 names chinnu
pandu
MUNNA
bunny
PAPPU
NAMES
----------------------------
bunny
chinnu
MUNNA
pandu
PAPPU
```

POINTERS

Pointer is a variable which stores the address of another variable of same type.

Pointer is a variable which stores the address of memory [byte] at runtime [dynamic].

int a[10]={4, 9}; static memory[compile time]

derived datatype

advantages:

1. Dma – run time mem alloc
2. Mem wastage prevented.
3. Performance is high
4. System software development
5. Data structures
6. It allows to access local variable outside function. i.e. sharing data between functions [call by addr/reference]
7. File handling.

8. Strings / array controlled with pointers.
9. speed

disadvantage:

they are not secured.

Syntax:

```
Datatype * variable;  /* declaration */
```

Here * indicates it is a pointer variable

Eg:

```
int  * p;   /* pointer var declaration */

int a=100;

p = &a;
```

to access the pointer we are using below syntax:

```
*var;
```

Here * is called indirection op

Dereferencing op

Redirection op

Value at that address

Value of pointer