S.No: 14	Exp. Name: ***Write a C program to calculate whether a given number is Palindrome or not***	Date:2024-10-24

Aim:

Design and develop an algorithm to find the reverse of an integer number and check whether it is **Palindrome** or not.

Implement a **C** program for the developed algorithm that takes an integer number as input and output the reverse of the same with suitable messages.

At the time of execution, the program should print the message on the console as:

```
Enter an integer :
```

For example, if the user gives the **input** as:

```
Enter an integer : 2014
```

then the program should **print** the result as:

```
The reverse of a given number : 4102
2014 is not a palindrome
```

If the input is given as 1221 then the result should be:

```
The reverse of a given number : 1221
1221 is a palindrome
```

Source Code:

Lab2.c

```
#include<stdio.h>
int main(){
   int n,r,rev,b;
   printf("Enter an integer : ");
   scanf("%d", &n);
   b=n;
    while(n!=0)
      {
         r=n%10;
         rev=rev*10+r;
         n/=10;
      }
   printf("The reverse of a given number : %d\n",rev);
   if(rev==b)
      printf("%d is a palindrome\n",b);
   else
      printf("%d is not a palindrome\n",b);
}
```


Execution Results - All test cases have succeeded!

Test Case - 1

User Output
Enter an integer : 2014
The reverse of a given number : 4102
2014 is not a palindrome

Test Case - 2
User Output
Enter an integer : 1221
The reverse of a given number : 1221
1221 is a palindrome