

IT 161_ Lab7

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Date: 28/01/2022

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Experiment: To create a C program to decide if the given integer is a palindrome, using for loop.

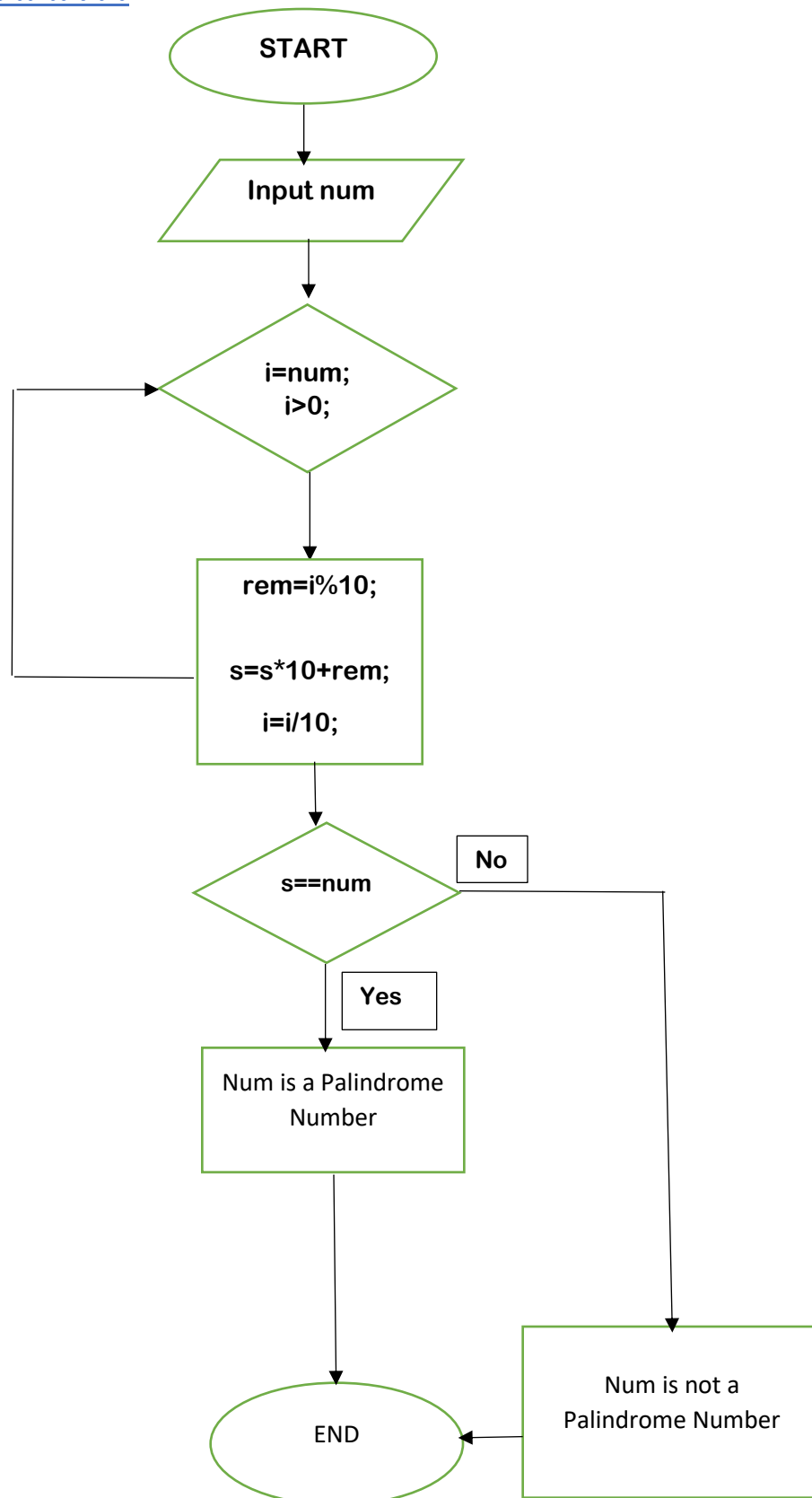
Objective: To create a C program to convert a decimal number to binary number.

Software: Online compiler and debugger for C

Methodology:

1. Declare i,num,rem,s as integer.
2. Take the input num from user.
3. Using a for loop for(i=num;i>0;) perform the tasks 4 to 6.
4. Do $i\%10$ and store the result in rem.
5. Do $s\%10$ and add rem and store the result to s.
6. Divide i by 10.
7. After the loop now , check whether the number entered and reverse number is equal or not .
8. If $s==num$, then num is a palindrome number.
9. If $s!=num$, then num is not a palindrome number.

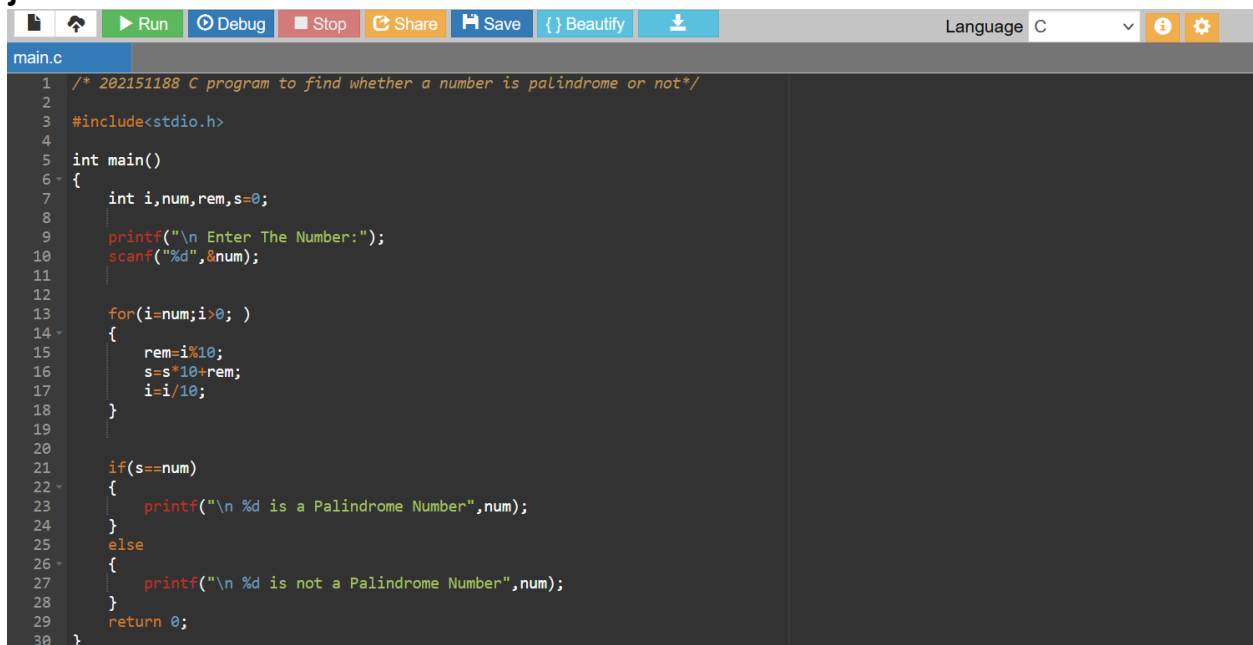
FLOWCHART:



CODE:

```
#include<stdio.h>
int main()
{
    int i,num,rem,s=0;
    printf("\n Enter The Number:");
    scanf("%d",&num);

    for(i=num;i>0; )
    {
        rem=i%10;
        s=s*10+rem;
        i=i/10;
    }
    if(s==num)
    {
        printf("\n %d is a Palindrome Number",num);
    }
    else
    {
        printf("\n %d is not a Palindrome Number",num);
    }
    return 0;
}
```

A screenshot of a code editor window showing the same C program as above. The editor has a dark theme with a toolbar at the top containing icons for Run, Debug, Stop, Share, Save, Beautify, and a download icon. The language is set to C. The code is displayed with line numbers from 1 to 30. The program is a C program to find whether a number is a palindrome or not. It includes the standard input/output header, defines the main function, and uses a loop to reverse the digits of the input number. It then compares the reversed number with the original number to determine if it is a palindrome.

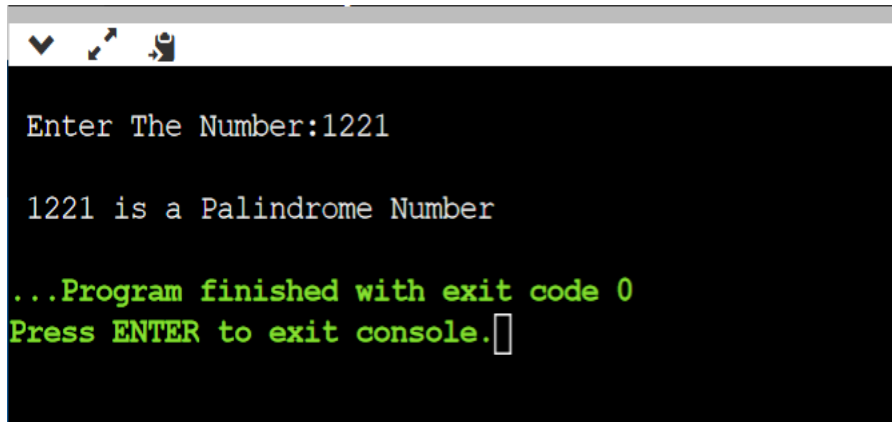
```
main.c
1  /* 202151188 C program to find whether a number is palindrome or not*/
2
3  #include<stdio.h>
4
5  int main()
6  {
7      int i,num,rem,s=0;
8
9      printf("\n Enter The Number:");
10     scanf("%d",&num);
11
12
13     for(i=num;i>0; )
14     {
15         rem=i%10;
16         s=s*10+rem;
17         i=i/10;
18     }
19
20
21     if(s==num)
22     {
23         printf("\n %d is a Palindrome Number",num);
24     }
25     else
26     {
27         printf("\n %d is not a Palindrome Number",num);
28     }
29     return 0;
30 }
```

RESULT:

Sample1:

Enter the Number: 1221

1221 is a palindrome Number

A screenshot of a console window with a dark background and light green text. The window has a title bar with standard icons. The text displayed is: "Enter The Number:1221", "1221 is a Palindrome Number", "...Program finished with exit code 0", and "Press ENTER to exit console." followed by a cursor.

```
Enter The Number:1221

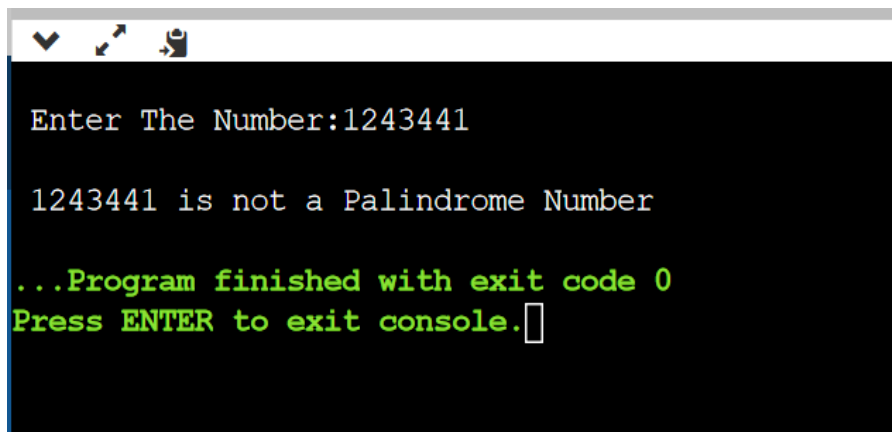
1221 is a Palindrome Number

...Program finished with exit code 0
Press ENTER to exit console.
```

Sample2:

Enter the number: 1243441

1243441 is not a palindrome number

A screenshot of a console window with a dark background and light green text. The window has a title bar with standard icons. The text displayed is: "Enter The Number:1243441", "1243441 is not a Palindrome Number", "...Program finished with exit code 0", and "Press ENTER to exit console." followed by a cursor.

```
Enter The Number:1243441

1243441 is not a Palindrome Number

...Program finished with exit code 0
Press ENTER to exit console.
```

