EDUCBA

```
#include <stdio.h>
#include <string.h>
int main()
{
if(string[i] != string[Len-i-1])
{
flag = 1;
break;
}
}
if(flag)
{
printf("Given string is not palindrome");
}
else {
printf("Given string is palindrome");
}
return 0;
```

Palindrome

C - Programming

educba.com

Introduction to Palindrome in C Program

Palindrome means reversing a given object that gives the same result as original. Object anything, a number, a string, phrase, etc. In this article, we are going to see how to see what is palindrome in C, How it works in the C program, how to identify if the given number or string is

EDUCBA

(https://www.educba
.com/software-
development/)

Start Your Free Software Development Course

Web development, programming languages, Software testing & others

1. **12321** – Reverse is 12321, so it is a palindrome.

2. **12342** – Reverse is 24321, so it is not a palindrome.

3. **abcdcba** – Reverse is abcdcba, so it is a palindrome.

4. **acbac** – Reverse is cabca, so it is not a palindrome.

Form the above example, we can now identify whether it is a palindrome or not. This is what we have done is theoretically or just orally. Now we are going to see how we can check palindrome in C program. Before moving to that, first, we will see the logic of palindrome in C.

The logic of palindrome in C program is given below:

1. Get an input form the user.

2. Store the input in a temporary variable.

3. Find the reverse of the input entered by the user.

4. Compare the reverse of input with the temporary variable.

5. If both reverse and temporary variables, matches, print it is a palindrome.

6. If both reverse and temporary variables do not match, print it is not a palindrome.

How to Check the Palindrome in C Program?

In this section, we are going to see how to check palindrome in C using various method the help of examples.

Example #1 – Program to Check Palindrome in C using while

EDUCBA

word While in code.

If this condition is true then it will execute the code inside the parenthesis of the While loop. If the condition is false then it will jump to the code after the While loop without executing the code of While loop. Let's see how to check if a number is a palindrome (https://www.educba.com/palindrome-in-javascript/) or not using a While loop.

⚡ Popular Course in this category

📖

C Programming Training (3 Courses, 5 Project)

3 Online Courses | 5 Hands-on Projects | 34+ Hours | Verifiable Certificate of Completion | Lifetime Access

★ ★ ★ ★ ★ 4.5 (8,635 ratings)

Course Price

$79 $399

View Course

(https://www.educba.com/software-development/courses/c-programming-course/?btnz=edu-blg-inline-banner1)

Related Courses

C++ Training (4 Courses, 5 Projects, 4 Quizzes) (https://www.educba.com/software-development/courses/c-course/?btnz=edu-blg-inline-banner1)

Java Training (40 Courses, 29 Projects, 4 Quizzes) (https://www.educba.com/software-development/courses/java-course/?btnz=edu-blg-inline-banner1)

QUIZ

EDUCBA

```c
#include<stdio.h>
#include<conio.h>
int main()
{
int number, reverse_number = 0, temp_number;
printf("Enter a number to check palindrome value:"); // allow user
to enter a number
scanf("%d", &number); // takes value from user
temp_number = number;   //store number to temp_number
while (number != 0)
{
reverse_number = reverse_number * 10;
reverse_number = reverse_number + number % 10;
number = number / 10;
}
if(temp_number == reverse_number) // check reverse number with
original number
{
printf("Given number is palindrome"); //if match, print palindrome
}
else
{
printf("Given number is not palindrome"); // If it don't match
with original print not palindrome
}
return 0;
```

EDUCBA

Example #2 – Program to Check Palindrome in C using For loop

First, we initialize and declare variables for the code. After that, the condition is evaluated. This initialization step is executed only once in the Code.

If the condition is true then it will execute the code inside the block of For loop. If the condition is false then it will jump to the code after the For loop without executing the code of For loop.

After the For loop, the increment statement will be executed. After that again the condition will be checked. Loop will get executed if the condition is true and the loop will repeat itself i.e. a body of the loop, an increment statement, and condition. The For loop ends when the condition is false. Let's see how to check if a number is a palindrome or not using For loop.

Code:

```
#include<stdio.h>
#include<conio.h>
int main()
{
int number, remainder_number, reverse_number= 0, i, temp_numbe
printf("Enter a number to check palindrome value:"); // allow user
to enter a number
```

```
remainder_number = i % 10;

reverse_number = remainder_number + reverse_number * 10;

i = i/ 10;

}

if(temp_number == reverse_number) // check reverse number with

original number

{

printf("Given number is palindrome"); //if match, print palindrome

}

else

{

printf("Given number is not palindrome"); // If it don't match

with original print not palindrome

}

return 0;

}
```

Output:

Example #3 – Program to Check Palindrome in C using a do-

EDUCBA

In the Do While loop (https://www.educba.com/do-while-loop-in-javascript/), The condition appears at the end of the loop, so the statements in the Do loop executed before checking whether a condition is true or false.

If the condition is true, the loop will go back up to do, and the statements in the loop will get executed again. This process repeats again and again and terminates when the given condition becomes false.

Let's see how to check if a number is a palindrome or not using a While loop.

Code:

```
#include<stdio.h>
#include<conio.h>
int main()
{
int number, reverse_number = 0, temp_number;
printf("Enter a number to check palindrome value:"); // allow user
to enter a number
scanf("%d", &number); // takes value from user
temp_number = number; //store number to temp_number
do
{

reverse_number = reverse_number * 10;
reverse_number = reverse_number + number % 10;
number = number / 10;
```

```
printf( Given number is palindrome ); //if match, print palindrome
}
else
{
printf("Given number is not palindrome"); // If it don't match
with original print not palindrome
}
return 0;
}
```
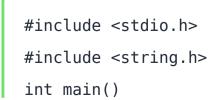
Output:

Example #4 – Program to check whether String is Palindrome or not in C

Let's see how to check if a string is a palindrome or not.

Code:

```
#include <stdio.h>
#include <string.h>
int main()
```

```
enter string

scanf("%s", string); // takes string as a input

len = strlen(string); //counts string length

for(i = 0; i < len; i++)

{

if(string[i] != string[len-i-1])

{

flag = 1;

break;

}

}

if(flag)

{

printf("Given string is not palindrome");

}

else {

printf("Given string is palindrome");

}

return 0;

}
```

Output:

EDUCBA

with some examples along with elaborated examples. I hope this article will help you in understanding the working of Palindrome number and you find this article helpful.

Recommended Articles

This is a guide to Palindrome in C Program. Here we discuss C program to check whether the number or string is Palindrome or not with some examples. You can also go through our other suggested articles to learn more –

1. Patterns in C Programming (https://www.educba.com/patterns-in-c-programming/)
2. Palindrome in C++ (https://www.educba.com/palindrome-in-c-plus-plus/)
3. Palindrome in Java (https://www.educba.com/palindrome-in-java/)
4. Palindrome in C# (https://www.educba.com/palindrome-in-c-sharp/)

C PROGRAMMING TRAINING (3 COURSES, 5 PROJECT)

☑ 3 Online Courses

☑ 5 Hands-on Projects

☑ 34+ Hours

☑ Verifiable Certificate of Completion

☑ Lifetime Access

Learn More

QUIZ

EDUCBA

(https://www.educba
.com/software-
development/)

About Us

Blog (https://www.educba.com/blog/?source=footer)

Who is EDUCBA? (https://www.educba.com/about-us/?source=footer)

Sign Up (https://www.educba.com/software-development/signup/?
source=footer)

Corporate Training (https://www.educba.com/corporate/?source=footer)

Certificate from Top Institutions (https://www.educba.com/educbalive/?
source=footer)

Contact Us (https://www.educba.com/contact-us/?source=footer)

Verifiable Certificate (https://www.educba.com/software-
development/verifiable-certificate/?source=footer)

Reviews (https://www.educba.com/software-development/reviews/?
source=footer)

Terms and Conditions (https://www.educba.com/terms-and-conditions/?
source=footer)

Privacy Policy (https://www.educba.com/privacy-policy/?source=footer)

Apps

iPhone & iPad (https://itunes.apple.com/in/app/educba-learning-
app/id1341654580?mt=8)

Android (https://play.google.com/store/apps/details?id=com.educba.www)

EDUCBA

Python Tutorials (https://www.educba.com/software-development/software-development-tutorials/python-tutorial/?source=footer)

All Tutorials (https://www.educba.com/software-development/software-development-tutorials/?source=footer)

Certification Courses

All Courses (https://www.educba.com/software-development/courses/?source=footer)

Software Development Course - All in One Bundle (https://www.educba.com/software-development/courses/software-development-course/?source=footer)

Become a Python Developer (https://www.educba.com/software-development/courses/python-certification-course/?source=footer)

Java Course (https://www.educba.com/software-development/courses/java-course/?source=footer)

Become a Selenium Automation Tester (https://www.educba.com/software-development/courses/selenium-training-certification/?source=footer)

Become an IoT Developer (https://www.educba.com/software-development/courses/iot-course/?source=footer)

ASP.NET Course (https://www.educba.com/software-development/courses/asp-net-course/?source=footer)

VB.NET Course (https://www.educba.com/software-development/courses/vb-net-course/?source=footer)

PHP Course (https://www.educba.com/software-development/courses/php-course/?source=footer)