

palindrome.c

```
1  /**
2   * C program to check if a number is a palindrome
3   * Palindrome: A number that remains the same when its digits are reversed
4   * e.g., 121, 1331
5   */
6 #include <stdio.h>
7
8 int main() {
9
10    int num, originalNum, reversedNum = 0, remainder;
11    printf("Enter an integer: ");
12    scanf("%d", &num);
13
14    originalNum = num;
15
16    // Reversing the number
17    while (num != 0) {
18        remainder = num % 10;
19        reversedNum = reversedNum * 10 + remainder;
20        num = num / 10;
21    }
22
23    if (originalNum == reversedNum) {
24        printf("%d is a palindrome.\n", originalNum);
25    } else {
26        printf("%d is not a palindrome.\n", originalNum);
27    }
28
29    return 0;
30}
31
32 /**
33  * using functions
34 #include <stdio.h>
35 int isPalindrome(int num) {
36    int originalNum = num;
37    int reversedNum = 0, remainder;
38
39    while (num != 0) {
40        remainder = num % 10;
41        reversedNum = reversedNum * 10 + remainder;
42        num = num / 10;
43    }
44
45    return originalNum == reversedNum;
46}
47
48 int main() {
49    int num;
50    printf("Enter an integer: ");
51    scanf("%d", &num);
```

```
52
53     if (isPalindrome(num)) {
54         printf("%d is a palindrome.\n", num);
55     } else {
56         printf("%d is not a palindrome.\n", num);
57     }
58
59     return 0;
60 }
61 */
62 */
```