

## Reverse of a number

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**Problem Description:** You are given a number N, then you have to print the reverse of this number N.

For example, if the given number N is 1234, then you have to print 4321.

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### How to approach?

1. Take the number N as input from the user.
2. Initialize the reverse number from 0, and a variable temp equal to N.
3. Run a while loop until temp becomes 0 and in each iteration pick up the last digit of the number by taking modulo 10 and make it as the first digit of reverse number by multiplying the already existing reverse number by 10 and then adding the last digit obtained to it and pass temp as temp/10 to the next iteration.
4. Print the reverse number.

Pseudo Code for this problem:

*Input=N*

*temp=N, rev\_num=0*

*While temp is greater than 0:*

*Last\_digit=temp modulo 10*

*temp=temp/10*

*rev\_num=rev\_num\*10+last\_digit*

*print(rev\_num)*

❑ Let us dry run the code:

x=1234

- temp=1234, rev\_num=0  
  last\_digit=4  
  temp=123  
  rev\_num=0\*10+4=4
- temp=123, rev\_num=4  
  last\_digit=3  
  temp=12

$\text{rev\_num} = 4 * 10 + 3 = 43$

- $\text{temp} = 12, \text{rev\_num} = 43$   
 $\text{last\_digit} = 2$   
 $\text{temp} = 1$   
 $\text{rev\_num} = 43 * 10 + 2 = 432$
- $\text{temp} = 1, \text{rev\_num} = 432$   
 $\text{last\_digit} = 1$   
 $\text{temp} = 0$   
 $\text{rev\_num} = 432 * 10 + 1 = 4321$
- So final output:  
4321