CS110: Computer Programming Lab
Department of CSE
IIT, Guwahati

Module 01 Stage 02 Exercise 09

Please read Module 01 Stage 02 drill before you work further on this document.

Problem description

Write a program that will get a 5-digit integer number assigned to a designated variable. The program should then print a number whose digits are a mirror image of the original number. That is, your program should reverse the order of the digits in the number.

For example, if the original number is 12345, the printed output number will be 54321.

Guiding instructions

This is easily done by maintaining two work in progress variables in the program. One has remaining original value to be processed. The other has the output number constructed so far.

We may run the full transformation in 5 steps. Each step removed a digit from the input in right to left order and then pushes it through the rightmost position in the output being constructed. See example below:

```
Original number as given by the user: 12345
Current version of the input number: 12
Digit being pushed to the right of the output value being
constructed: 3
Output constructed thus far: 54
```

A short sequence of assignment statements with arithmetic expressions using operators modulo (%), multiply (*) by 10, divide (/) by 10, and add (+) would let you complete this translation of order of digits.