

Homework 3 (Deadline 13:00, March 25, submit your files to TronClass)

Please submit the source code only. The file name should include your student ID number. For example, if your ID number is 406290123, then the file names for problems 1 and 2 should be 406290123_1.txt and 406290123_2.txt, respectively.

1. Write a program that asks the user to input a five-digit integer, separate the integer into its digits and show them both horizontally separated by three spaces in one row and vertically in separated lines.

For example, if the user types in 42339, the program should print

```
4  2  3  3  9
2
3
3
9
```

2. Decimal number to binary conversion

Task description:

Given a decimal number, convert it to the corresponding binary number.

Input:

Ask the user to input a positive integer within the range [0,255]. At this point, you don't have the tool to check if the input is within the range, so don't worry about it.

Output:

The binary number.

For example, if the input is 33, then the output should look like the following

The binary representation of 123 is 100001.

