

# TCP1201 Object-Oriented Programming and Data Structures

## Lab08 Sets and Maps

### Exercise 1: Find Nonduplicate Numbers

Write a program that reads an unspecified number of integers and displays all the nonduplicate numbers in both ascending order and insertion order.

Sample run:

Enter integers: 2 3 4 3 5 4 -3 3 3 3 1 6

Nonduplicate numbers in ascending order: -3 1 2 3 4 5 6

Nonduplicate numbers in insertion order: 2 3 4 5 -3 1 6

### Exercise 2: Find Occurrences of Characters

Write a program that reads a sentence from user input, then prints the occurrences of each character.

Sample run:

Enter a sentence: Data Structures

Character occurrence in original order

{d=1, a=2, t=3, =1, s=2, r=2, u=2, c=1, e=1}

d 1

a 2

t 3

= 1

s 2

r 2

u 2

c 1

e 1

Character occurrence in ascending order

{ =1, a=2, c=1, d=1, e=1, r=2, s=2, t=3, u=2}

= 1

a 2

c 1

d 1

e 1

r 2

s 2

t 3

u 2

Enter a character to search: q

The sentence does not contain character 'q'.

Enter a character to search: t

The sentence contains 3 't'.