# Data Structure Assignment 3

## Programming Homework

Maze

Problem description:

In the sample input, 0' s are available path and 1' s are blocked. Help the rat to find the route out of the maze!! The rat has 8 direction choices. Count the number of steps and show your result in your program. There are only 2 kinds of possible result.

1. No route

2. Just exist one route

**Sample input**

4 5
s0100
11010
01011
0110d

This maze is an NxM matrix.

The first line of sample input contains two intergers N and M (1≤N,M≤1001).

Character 's' represents source site.

Character 'd' represents destination.

There is no space character between character.

Warning: The source site and destination are not always on (0,0) and (m-1,n-1).

**Sample output**

s*100

11*10

01*11

011*d

6 steps

Character ‘*’ represent the rat passed.

There is no space character between character as well.

1. No route→print “No route”.

2. Exist route→print the result and the number of steps.

**General Information:**

- Deadline：2017/11/17 23:55.
- Upload your assignment to Moodle system.
- Upload file format: Student-Id_Name.rar , Ex.P76991094_王小明.rar
- Your file should consist of the following items: Source Code & Readme file (Program description)
- Late homework will not be accepted.
- Any copies will be scored as zero. Do not plagiarize

# Paper Homework

Write the postfix form of the following expressions:

(Just write down your answers, and no need to explain)

(a) a*b*c
(b) –a+b-c+d
(c) a*-b+c
(d) (a+b)*d+e/(f+a*d)+c

**General Information:**

- Deadline：2017/11/3 (Please submit to TA after class)
- Late homework will not be accepted.
- Please write on **A4** papers.
- Any copies will be scored as zero. Do not plagiarize