

## Problem 1: A simple program

# EXERCISE A

- Using the Borland C++ Builder Environment, write a program to compute and print out the factorial of 10 three times:
  - first using a for-loop
  - then using a while-loop
  - finally using a do-while-loop

## Problem 2: Accessing Files & String Processing

- Download from the course web page:
  - [http://www.ee.ic.ac.uk/pcheung/teaching/ee2\\_software\\_engineering/](http://www.ee.ic.ac.uk/pcheung/teaching/ee2_software_engineering/)
 the text file sudoku001.txt which contains a sudoku game.
- The first line contains the level of difficulties (in this case, fiendish) and puzzle number (001).
- The remaining 9 lines contain the sudoku puzzle and solution.
- The puzzle is defined by all the numeric entries and the solution is given by the alphabets.
- In case of the solution, 'A' represents the numeric solution of '1', 'B' is '2' and so on.

## Problem 2: Accessing Files & String Processing (continue)

- You are required to write a console program to read this text file and print out on the console window the puzzle in the form shown here:

```
--7-2----
-5-3--2--
4-37--5-8
-7-----2-
--4---3--
-8-----5-
1-6--29-3
--5--6-4-
----8-6--
```

- After that, print out the entire puzzle with solution in this form:

```
617825439
958364271
423791568
571639824
264158397
389247156
146572983
835916742
792483615
```