Exercise 5 (10 points) – can be done in pair or individually
- The first lines of all source files must be comments containing names & IDs of all members. Also create file readme.txt containing names & IDs of all members

- Put all files (source, input, readme.txt) in folder Ex5_xxx where xxx = ID of the group representative, i.e. your source files must be in package Ex5_xxx (assumedly in Maven's src/main/java). Input files must be read from this path

- The group representative zips Ex5_xxx & submits it to Google Classroom. The other members submit only readme.txt. Email submission is not accepted
===

Modify your source code from Exercise 4 to handle exceptions

1. Handle exceptions when opening file (i.e. file not found). Keep asking user for a valid file name

2. Put the code that reads & splits each line of data in try-catch. If a runtime exception occurs, print exception message and line that causes the exception. Then skip that line and read the next one. <u>Take note of which exception occurs in which situation, as this will be asked in Midterm exam</u>

3. Some conditions such as invalid/negative values will not cause runtime exception. It depends on application logic. For this program,

   - Airport code must always have 3 characters
   - All numbers must be integers >= 0

   You have to check these conditions by yourself and throw your own exception (from your own exception class) or Java's exception, e.g.
   ```
   if (value < 0)
       throw new RuntimeException("This is my own exception");
   ```

4. Using code from Exercise 4, sort and print Airport objects as before. Due to the exceptions in (2)-(3), some of them will be excluded from the output

Istanbul Airport,	IST, 38, 5, **l**	l instead of one
Miami International Airport,	MIA, 2**O**, 4, 3	O instead of zero
Frankfurt Airport,	**FR**, 63, 4, 2	invalid code (length < 3)
Narita International Airport,	**NRTT**, 36, 2, 3	invalid code (length > 3)
Dublin Airport,	DUB, 31**;** 3, 2	semi-colon instead of colon
Suvarnabhumi Airport,	BKK, **52　3**, 3	no comma between values
London Heathrow Airport,	LHR, 76, 2, **-4**	negative value
Amsterdam Airport Schiphol,	AMS, **7.1**, 6, 1	double instead of int
Madrid-Barajas Airport,	MAD, 44, 4, 4, **4**	exceeding columns
Hong Kong International Airport,	HKG, 71, 3	missing column

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ solutions ---
java.io.FileNotFoundException: src\main\java\Ex34\airports_error.txt (The system cannot find the file specified)
New file name =
airports
java.io.FileNotFoundException: src\main\java\Ex34\airports (The system cannot find the file specified)
New file name =
airports_errors
java.io.FileNotFoundException: src\main\java\Ex34\airports_errors (The system cannot find the file specified)
New file name =
airports_errors.txt                          Handle missing file

java.lang.NumberFormatException: For input string: "1"
Istanbul Airport,                IST, 38, 5, 1

java.lang.NumberFormatException: For input string: "2O"
Miami International Airport,      MIA, 2O, 4, 3

java.lang.RuntimeException: My Exception: invalid airport code: FR"
Frankfurt Airport,               FR,  63, 4, 2          Check & throw RuntimeException
                                                        with our own message
java.lang.RuntimeException: My Exception: invalid airport code: NRTT"
Narita International Airport,     NRTT, 36, 2, 3

java.lang.NumberFormatException: For input string: "31; 3"
Dublin Airport,                  DUB, 31; 3, 2

java.lang.NumberFormatException: For input string: "52  3"
Suvarnabhumi Airport,            BKK, 52  3, 3

java.lang.RuntimeException: My Exception: negative value "-4"
London Heathrow Airport,         LHR, 76, 2, -4          Check & throw RuntimeException
                                                         with our own message
java.lang.NumberFormatException: For input string: "7.1"
Amsterdam Airport Schiphol,      AMS, 7.1, 6, 1

java.lang.ArrayIndexOutOfBoundsException: Index 4 out of bounds for length 4
Hong Kong International Airport,  HKG, 71, 3

Airport                          Passengers (M)   Runways   Terminals
======================================================================
DXB  Dubai International Airport         86           2          3
CDG  Paris-Charles de Gaulle Airport     69           4          3
ICN  Seoul Incheon International Airport 69           4          2
SIN  Singapore Changi Airport            67           3          4
MAD  Madrid-Barajas Airport              44           4          4
KUL  Kuala Lumpur International Airport  44           3          2
LGW  London Gatwick Airport              44           2          2
TPE  Taoyuan International Airport       44           2          2
BCN  Barcelona-El Prat Airport           38           3          2
MUC  Munich Airport                      38           2          2
DOH  Hamad International Airport          38           2          1
JFK  John F. Kennedy International Airport 34          4          6
CPH  Copenhagen Airport                  24           3          2
PVG  Shanghai Pudong International Airport 22          5          2


----------------------------------------------------------------------
BUILD SUCCESS
----------------------------------------------------------------------
```

Exceeding col doesn't cause Java exception. We can just ignore the exceeding col or check & throw exception with our own message