Instructions for Practical Exercise

1. Use the Java_language_basics folder of previous part. This folder will contains code files for each PE that you will do for the Java Inheritance and Common Classes PE.
2. Name code files corresponding to PE numbers. For example, Pe1.java is the code file for Practical Exercise 1 (PE 1)
3. Push your project to git

Practical Exercise: Java Inheritance and Common Classes – Part 3

PE 1 Create a class called StudentMarks, which prompts user for the number of students, reads it from the keyboard, and saves it in an int variable called numOfStudents. It then prompts user for the grades of each of the students and saves them in an int array called stuGrades. Your program shall check that the grade is between 0 and 100 else has to trow an error message.

Write a program to compute the addition of two matrix, Read the number of rows and columns as input, also the values of each matrix

Output:

Input number of rows of matrix: 3

Input number of columns of matrix: 2

Input elements of first matrix: 1 2 3 4 5 6

Input the elements of second matrix: 9 8 7 6 5 4

Sum of the matrices:-

10 10

10 10

10 10

PE 2 Write a java program to calculate first and last date of a week.

Output:

First Date of Week: Mon 24/07/2017

Last date of the week: Sun 30/07/2017

PE 3 Write a program to set up an array of places, Loop round and remove the vowels. Display the new words in console

Input:

India

United States

Germany

Egypt

czechoslovakia

Output:

Place Name without Vowels:0 Ind

Place Name without Vowels:1 Untd Stts

Place Name without Vowels:2 Grmny

Place Name without Vowels:3 Egypt

Place Name without Vowels:4 czchslvk

PE 4 Write a program to create a ChessBoard pattern with the help of multidimensional array, where WW represents white color and BB represents Black color.

Output:

My Chess Board

WW|BB|WW|BB|WW|BB|WW|BB|

BB|WW|BB|WW|BB|WW|BB|WW|

WW|BB|WW|BB|WW|BB|WW|BB|

BB|WW|BB|WW|BB|WW|BB|WW|

WW|BB|WW|BB|WW|BB|WW|BB|

BB|WW|BB|WW|BB|WW|BB|WW|

WW|BB|WW|BB|WW|BB|WW|BB|

BB|WW|BB|WW|BB|WW|BB|WW|

PE 5 Write a program to find out if a series of 7 digits are consecutive numbers. To make this easier, assume the digits are a string and use split()

Input: 98,96,95,94,93

Output: 98,96,95,94,93 non consecutive numbers

Input: 54,53,52,51,50,49,48

Output : 54,53,52,51,50,49,48 are consecutive numbers

Input: 1,2,3,4,5,6,6

Output: 1,2,3,4,5,6,6 non consecutive numbers

PE 6 Create a class with a main( ) that throws an object of class Exception inside a try block.

a. Give the constructor for Exception a String argument.

b. Catch the exception inside a catch clause and print the String argument.

c. Add a finally clause and print a message to prove you were there.

PE 7 Write a program that will generate exceptions of type NegativeArraySizeException, IndexOutOfBoundsException, NullPointerException. Record the catching of each exception by displaying the message stored in the exception object.ete