Lab Exercise on Exception Handling

Question 1

Write an application that throws and catches an ArithmeticException when you attempt to take the square root of a negative value. Prompt the user for an input value and try the Math.sqrt() method on it. The application either displays the square root or catches the thrown Exception and displays an appropriate message. Save the file as SqrtException.java.

Question 2

The Double.parseDouble() method requires a String argument, but it fails if the String cannot be converted to a floating-point number. Write an application in which you try accepting a double input from a user and catch a NumberFormatException if one is thrown. The catch block forces the number to 0 and displays an appropriate error message. Following the catch block, display the number. Save the file as TryToParseDouble.java.

Question 3

Define Employee class with Employee code, name, date of birth and date of appointment. The Employee code must have the format of year-designation-number. The year is a two digit integer such as 87. the designation is a single letter code M for manager, A for Administrative staff, H for HR dept staff, E for Executive staff, and T for Technical staff. The number is a three digit number. The following are some sample employee codes.
82-M-183
76-A-242
71-H-107

Write a Java program to read the employee code, name, date of birth, and date of appointment and validate the employee code. If the employee code is incorrect a suitable user defined exception must be thrown. Then verify if date of birth is before date of appointment. If it is not so, then throw another user defined Exception. If it is correct, then create the Employee object, display the count of employee and display the details of employees.