(a) Create a file to contain double values Write a method that creates a file (the file name needs to be specified by the users) to accommodate doubles that will be obtained from user interactive input.

(b) Search an given value in the file Write a method to: read the file created in (a), search file for the value specified by the user, and finally display the searching result on monitor screen.

(c) Sort Write a method that reads the file (with double values) created in (a) and takes a boolean value as parameter. If the boolean value is true, the method sorts the file in ascending order (from lowest to highest). If it is false, the file is sorted in descending order (from highest to lowest).

(d) Display a file Write a method that takes the name of a file, opens the file, reads it and prints out its contents to the monitor.

Exercise 1: Implement a superclass Person. Make two classes Student and Instructor that inherit from Person. A person has a name and a date of birth. A student has a major, and an instructor has a salary. Write the class definition, the constructors, and the methods toString for all classes. Supply a test program that tests these classes and methods.

Exercise 2: (download BankAccount.java and SavingsAccount.java from course website) Add a TermDepositAccount class to the bank account hierarchy. The term deposit account is just like a savings account, but you promise to leave the money on the account for a particular number of months, and there is a penalty for early withdrawal. Construct the account with the interest rate and the number of months to maturity. In the addInterest method, decrement the count of months, if the count is positive during a withdrawal, charge the withdrawal penalty. Supply a test program.