Sample questions:

1. Write the code for a class named Ticket. This class will be used to instantiate objects that represent the right to access a performance in the sports venue. The class will have 4 private instance variables: a boolean variable named used, an integer variable named ticketId, a double variable named price and a string variable name day. The Boolean variable used will be initialised to false and changed to true by the method: useThisTicket which will be called when the ticket is presented at the sports ground. When the ticket is created, a unique new id number is allocated to ticketId. This id number will be generated by adding one to the previously used ticketId number, which is kept stored in a variable shared by all Ticket objects.

2. Given a class named TicketDB, which will be used to provide the responsibility of data management of a set of Ticket objects. Internally, it should use an ArrayList of Ticket as follows:

   Public class TicketDB {

   private ArrayList< Ticket > ticketList = new ArrayList< Ticket >();

   - implementation for a method to add a not null Ticket object into the ticketList.
   - implementation for a method to report the average price of the tickets.
   - implementation for a method to retrieve a specific ticket by id.
   - implementation for a safe way method to obtain an ArrayList of all the Ticket objects within a given range of prices.
   - implementation for a method called reportTickets() which should write the Ticket objects stored in the ticketList to a text file named "tickets-report.txt". You should use the printf() method to format your data in the following structure:

   public void reportTickets ();

ID	Day	Price	Uesd
100	Monday	$100.0	true
101	Tuseday	$120.0	false

3. There is a text file containing the details of several ticket details. Each ticket uses 3 lines of the file. The first of the three lines is a string giving the day of the ticket, for example “Monday” or “Tuesday”. The second of the three lines contains double giving the price, the third line is Boolean indicating whether it is used or not. However, the very first line of the file is an integer number, which says how many tickets are given in the file in the lines which follow it (i.e. how many records will follow).

   Text file example for two tickets

   “tickets.txt”

   2

   Monday

   100.0

   true

   Tuesday

   120.0

   false

   Write code for a method named processTextFile() which will open the file named ‘tickets.txt’, from which it will read the data of tickets. It will create Ticket objects using this data, placing them into an ArrayList<Ticket> ticketList.