**Web Engineering HomeWork 2 C.I:Wasim Ahmad**

**Due Date:23-10-16(11:59 pm) File and Exception Handling**

**Total Marks: 130**

**Note:**

* **As you have done the same tasks(normal level) in lab-03 so understanding the statement is part of question.**
* **Copying solutions from other students is strictly prohibited.**
* **Violations will not be excused and may result in an F in the course.**
* **Use java documentation and java reference book and go through all examples from chap 1-5.**
* **Only for Complex and Moderate level queries,email** [**aliiqbalchf13@gmail.com**](mailto:aliiqbalchf13@gmail.com) **or ping me via mobile(if not respond within 3 hours).**
* **Stay honest and have a happy weekend ☺ ☺ ☺**

**Difficulty level:normal**

1. Make a file “ojaybe.txt” and store the following sentence in it taken by user input “The quick brown fox jumped over the lazy dog”. If the user enters something else other than this sentence. It should store “The user has gone mad” in “ojaybe.txt”. **Marks: 10**
2. Take a word from the user as input and search the file “ojaybe.txt” for that word. If the word is available It should display the contents after the word and the word itself. Example : If you search “jumped” and the contents of the file are “The quick brown fox jumped over the lazy dog”. It should display “jumped over the lazy dog”.Throw an exception if not found. **Marks: 20**
3. Your program should keep a track of number of times the file “ojaybe.txt” is accessed. If it is accessed more than 10 times. It should throw an exception and display “number of file accesses breached”. **Marks: 10**
4. Write another program that asks user for a filename and if he enters “ojaybe.txt” , it checks whether the file exists or not, if the file exists it will not let the user create the file with the same name. **Marks:10**

**Difficulty level:Moderate**

1. Generate a random number in range 5 to 10, save it in variable SIZE. Take 2 dynamic arrays of size generated(random number). Initialize both arrays randomly in range 0 to 100. Write values of both arrays to file”ai.txt” . Calculate and print average of both arrays. **Marks: 30**

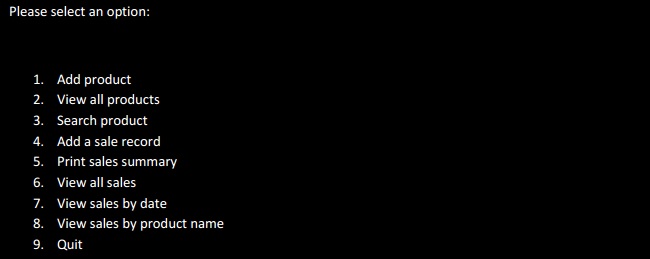
Write following functions: -

* InitRandomly:- pass array &size and initialize values randomly with values below 100 – if values greater than 100 throw exception
* print:- pass array & size and print values in a single line separated by spaces (at the end move to next line) –
* Resize:- pass array as reference and size double the array using a temporary array, –
* Search:- pass array, element & size. Find and return location of element if found in array otherwise throw an exception
* If element is found in the array ,write the element and location of the element in “ai.txt”,otherwise use “throw” to handle exception

**Difficulty level:Complex**

**Marks:50**

1. Show the menu program for a sales counter. This program will have the following features.



Please note the program will have 2 files.

1. Products.txt

2. Sales.txt

Products will be saved in following fields

• Id

• Name

• Price

• Quantity

Sample Products File



Second file will have all the sales recorded. Only difference here is you will use the product id instead of product name. So you will sell 1 instead of Bread in the sales section. You also add proper exceptions like whether the product and its required quantity is available or not before registering a sale.

Sample Sales File



Menu Functionalities:

1-Add a product: get product title,id,price and quantity from user and write in “products.txt”

2-Read data from “products.txt” and display on console.

3-search the product from the file,throw an exception if not exist.

4-add the sales record(write to file “sales.txt”) according to the sample picture shown above,for bread use id 1,for bun use 2.Maintain the product price according to the quantity of the product.

5-Print the sales summary.e.g total sales quantity and total amount all sales”

6-it will read file “sales.txt” till the end of file detected.

7-view all sales will print all the sale for a specific date after taking date from the user.

8-Take product name from the user and search its record from the file “products.txt”.

At the end create a new file “ai.txt” and copy content from sales.txt to “ai.txt”.

Note:Use exception handling and EOF whereever needed.