**National University of Computer and Emerging Sciences **

**Laboratory Manual**

*for*

**Data Structures Lab**

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| Section BSE 5C |
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**In this lab we cover:**

● File Handling

**Basic File Handling Operation:**

In the file creation process, the first step is to create a **File** Object, followed by invoking built-in functions on that object.

**File myobj = new File(“file.txt”)**

**i) Create File**

import java.io.File

myobj.createfile() // File created

**ii) Write in File**

**Use FileWriter object to write in the file.**

import.java.FileWriter

FileWriter obj = new FileWriter(myobj);

myobj.write(“Data in File”)

**iii) Read Data from File**

User can read the data from file using scanner and FileReader

Type: 1

String content = "";

Scanner input = new Scanner(myObj);

while(input.hasNextLine()){

content = content +input.nextLine();

}

input.close();

Type: 2

FileReader input = new FileReader("input.txt"); FileReader input = new FileReader("file.txt");

// Reads characters

input.read(array);

System.out.println("Data in the file:"); System.out.println(array);

// Closes the reader

input.close();

**iv) Delete File**

Delete the file using File Object

myobj.delete()

**Lab Manual:**

**Question 1: Invert Cases**

Write a code in Java to invert the cases of alphabets from a file.

1. Read the file, “file.txt”.

2. Invert the cases using wrapper class.

3. Delete that file, “file.txt”.

4. Write the inverted text in the new file, “file\_process.txt”. **Example:**

**File.txt:**

This is Pakistan .

After all functions:

**File\_process.txt:**

tHIS IS pAKISTAN.

**Question 2: Marks Sheet**

Write a code in Java to create mark sheets of the students. You have to create a Menu:

i. Press 1 for creating New File.

ii. Press 2 to Write Data.

iii. Press 3 to Read Data.

iv. Press 4 to Exit.

Press 1 : Enter Roll number of the student. A new file will be created e.g “l192277.txt”.

Again display Menu to users.

Based on Selection, operations will perform.

Press 2: User will enter data.

Data in File must be look like this:

Subject Marks

Math 35

Physics 30

Users can see data of any created file in this run.