

## Experiment Title: 2.4

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**Subject Code:** 20CSP-321

**Subject Name:** PBLJ

### 1. Aim/Overview of the practical:

#### Employee Management System

Create a menu-based Java application with the following options.

1. Add an Employee
2. Display All
3. Exit

If option 1 is selected, the application should gather details of the employee like employee name, employee id, designation and salary and store it in a file.

If option 2 is selected, the application should display all the employee details.

If option 3 is selected the application should exit.

### 2. Software/Hardware Requirements:

- VS Code/ IntelliJ

### 3. Algorithm/pseudo code:

- Start execution.
- Declare 4 ArrayList to store employee name, employee id, designation and salary.
- Using the constructor add values to the arraylist.
- Make a display function to Display the contents of each arraylist using a for loop.
- In main function take choices as input inside a switch statement.
- Call the relevant functions as per the entered choices.
- Stop execution.

## 4. Steps for experiment/practical/Code:

```
import java.io.*;
import java.util.Scanner;

class FileReadWrite{

    void WriteData() {
        int age, salary, id;
        String name;
        id= Input.nextInt("Employee ID");
        name= Input.inputString("Employee name");
        age= Input.nextInt("Employee age");
        salary= Input.nextInt("Employee Salary");

        FileOutputStream fos;
        try {
            fos = new FileOutputStream("text.txt", true);
            DataOutputStream dos= new DataOutputStream(fos);

            dos.writeInt(id);
            dos.writeUTF(name);
            dos.writeInt(age);
            dos.writeInt(salary);

            dos.flush();
            fos.close();
        } catch (Exception e) {
            e.printStackTrace();
        }
    }

    void ReadData() {
        FileInputStream fis;
        try {
            fis = new FileInputStream("text.txt");
            DataInputStream dis= new DataInputStream(fis);
            int c=1;
            while(true){
                int age, salary, id;
                String name;
                id = dis.readInt();
```

```
        name= dis.readUTF();
        age= dis.readInt();
        salary= dis.readInt();

        System.out.println("Employee " + (c++));
        System.out.println("Employee Id: " + id);
        System.out.println("Employee Name: " + name);
        System.out.println("Age: " + age);
        System.out.println("Salary: " + salary);

        System.out.println("-----");

        // dis.close();
    }
} catch (FileNotFoundException e)
{

} catch (IOException e)
{

}

}

}

public class Exp2_4 {
    public static void main(String[] args) {
        System.out.println("Aryan Jangir_20BCS1671");
        FileReadWrite obj= new FileReadWrite();
        while(true) {
            System.out.println("=====");
            System.out.println("Employee Data: \n\t1. Add employee\n\t2. Display All\n\t3. "+
"Exit");
            int a= Input.inputInt("Option");

            switch (a) {
            case 1: {
                obj.WriteData();
                break;
            }
            case 2: {
                obj.ReadData();
                break;
            }
            }
        }
    }
}
```



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```
    }  
    case 3: {  
        System.out.println("Exit Successfully");  
        System.exit(0);  
        break;  
    }  
    default:  
        System.out.println("Invalid input");  
    }  
}  
  
}  
}  
  
class Input{  
    static Scanner cin= new Scanner(System.in);  
    static int inputInt(String a) {  
        System.out.print("Enter "+a+": ");  
        int aa= cin.nextInt();  
        return aa;  
    }  
    static String inputString(String a) {  
        System.out.print("Enter "+a+": ");  
        String aa= cin.next();  
        return aa;  
    }  
}
```

### 5. Result/Output/Writing Summary:

PROBLEMS 140 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER SQL CONSOLE

Microsoft Windows [Version 10.0.22621.674]

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C:\Users\Lenovo\Desktop\java program>cd "c:\Users\Lenovo\Desktop\java program\" && javac  
Aryan Jangir\_20BCS1671

=====

Employee Data:

1. Add employee
2. Display All
3. Exit

Enter Option: 1

Enter Employee ID: 12

Enter Employee name: Aryan

Enter Employee age: 21

Enter Employee Salary: 54000

=====

Employee Data:

1. Add employee
2. Display All
3. Exit

Enter Option: 1

Enter Employee ID: 13

Enter Employee name: Happy

Enter Employee age: 21

Enter Employee Salary: 60000

=====

Employee Data:

1. Add employee
2. Display All
3. Exit

Enter Option: 2

Employee 1

Employee Id: 12

Employee Name: Aryan

Age: 21

Salary: 54000

-----

Employee 2

Employee Id: 13

Employee Name: Happy

Age: 21

Salary: 60000

-----

```
=====
Employee Data:
    1. Add employee
    2. Display All
    3. Exit
Enter Option: 3
Exit Successfully

c:\Users\Lenovo\Desktop\java program>
```

## 6.Learning outcomes (What I have learnt):

- Learned about ArrayList.
- Learned about Switch Statement.
- Learned about ArrayList Traversal.

**Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):**

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			