



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment - 5

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Branch: BE-CSE

Semester: 5th

Subject Name: Project Based Learning in Java

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UID: 23BCS12907

Section/Group: KRG-2B

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Aim: 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.

Objective: To combine object-oriented programming, file handling, and menu-driven console interaction.

Procedure:

1. Present a menu:

- a) Add Employee
- b) Display All
- c) Exit

2. On choosing Add, take input for:

- a) Employee Name
- b) Employee ID
- c) Designation
- d) Salary

3. Write this data to a file.

4. On choosing Display, read and display all employee data from the file.

5. Exit on selection of option 3.

Sample Output -

Menu:

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



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Enter choice: 1
Name: John
ID: 1001
Designation: Manager
Salary: 75000
Employee added successfully!

Enter choice: 2
Employee List:
John | 1001 | Manager | 75000

Code -

```
package intro_day1;
import java.io.*;
import java.util.*;

class Employee {
    private String name;
    private String id;
    private String designation;
    private double salary;

    public Employee(String name, String id, String designation, double salary) {
        this.name = name;
        this.id = id;
        this.designation = designation;
        this.salary = salary;
    }

    public String toFileString() {
        return name + "|" + id + "|" + designation + "|" + salary;
    }

    public static Employee fromFileString(String line) {
        String[] parts = line.split("\\|");
        return new Employee(parts[0], parts[1], parts[2], Double.parseDouble(parts[3]));
    }

    public String toString() {
        return name + " | " + id + " | " + designation + " | " + salary;
    }
}
```



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```
public class practice {
    private static final String FILE_NAME = "employees.txt";
    private static Scanner sc = new Scanner(System.in);

    public static void main(String[] args) {
        while (true) {
            System.out.println("\nMenu:");
            System.out.println("1. Add Employee");
            System.out.println("2. Display All");
            System.out.println("3. Exit");
            System.out.print("\nEnter choice: ");
            int choice = sc.nextInt();
            sc.nextLine();

            switch (choice) {
                case 1:
                    addEmployee();
                    break;
                case 2:
                    displayAll();
                    break;
                case 3:
                    System.out.println("Exiting...");
                    System.exit(0);
                default:
                    System.out.println("Invalid choice! Try again.");
            }
        }
    }

    private static void addEmployee() {
        System.out.print("Name: ");
        String name = sc.nextLine();
        System.out.print("ID: ");
        String id = sc.nextLine();
        System.out.print("Designation: ");
        String designation = sc.nextLine();
        System.out.print("Salary: ");
        double salary = sc.nextDouble();
        sc.nextLine();

        Employee emp = new Employee(name, id, designation, salary);

        try (BufferedWriter bw = new BufferedWriter(new FileWriter(FILE_NAME, true))) {
            bw.write(emp.toString());
            bw.newLine();
            System.out.println("Employee added successfully!");
        } catch (IOException e) {
            System.out.println("Error writing to file.");
        }
    }
}
```



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```
}  
  
private static void displayAll() {  
    System.out.println("\nEmployee List:");  
    try (BufferedReader br = new BufferedReader(new FileReader(FILE_NAME))) {  
        String line;  
        while ((line = br.readLine()) != null) {  
            Employee emp = Employee.fromFileString(line);  
            System.out.println(emp);  
        }  
    } catch (FileNotFoundException e) {  
        System.out.println("No employees found.");  
    } catch (IOException e) {  
        System.out.println("Error reading file.");  
    }  
}
```

Output -

```
Menu:  
1. Add Employee  
2. Display All  
3. Exit  
  
Enter choice: 1  
Name: Mandeep  
ID: 10854  
Designation: Engineer  
Salary: 1000000  
Employee added successfully!  
  
Menu:  
1. Add Employee  
2. Display All  
3. Exit  
  
Enter choice: 2  
|  
Employee List:  
Mandeep | 10854 | Engineer | 1000000.0
```