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Program:

```java
import java.util.Scanner;

class Employee {
    String Name;
    int emp_id;
    String department;
    int age;
    String designation;
    double salary;

    // Default constructor
    Employee() {
        this.Name = "";
        this.emp_id = 0;
        this.department = "";
        this.age = 0;
        this.designation = "";
        this.salary = 0.0;
    }

    // Method to read employee data
    void readData(Scanner sc) {
        System.out.println("Enter employee id:");
        this.emp_id = sc.nextInt();
        sc.nextLine();  // Consume the newline left by nextInt()

        System.out.println("Enter name:");
        this.Name = sc.nextLine(); // Use nextLine() to capture the full name

        System.out.println("Enter department:");
        this.department = sc.nextLine();

        System.out.println("Enter age:");
        this.age = sc.nextInt();
        sc.nextLine();  // Consume the newline left by nextInt()

        System.out.println("Enter designation:");
        this.designation = sc.nextLine();

        System.out.println("Enter salary:");
        this.salary = sc.nextDouble();
    }
    // Method to calculate sum of salaries for employees in the "sales"
department
```

```java
    static double calculateSum(Employee[] emp) {
        double total_sum = 0.0;
        for (int i = 0; i < emp.length; i++) {
            if (emp[i].department.equalsIgnoreCase("sales")) {
                total_sum += emp[i].salary;
            }
        }
        return total_sum;
    }

    // Method to find the highest paid employee in the "purchase" department
    static Employee highestPaid(Employee[] emp) {
        Employee highestPaidEmp = null;
        double maxSalary = -1;

        for (int i = 0; i < emp.length; i++) {
            if (emp[i].department.equalsIgnoreCase("purchase") &&
emp[i].designation.equalsIgnoreCase("manager")&& emp[i].salary > maxSalary) {
                highestPaidEmp = emp[i];
                maxSalary = emp[i].salary;
            }
        }
        return highestPaidEmp;
    }

    static void display(Employee[] emp)
    {
        for(int i=0;i<5;i++)
        {
            System.out.println("Name:"+emp[i].Name);
            System.out.println("Employee ID:"+emp[i].emp_id);
            System.out.println("Age:"+emp[i].age);
            System.out.println("Designation:"+emp[i].designation);
            System.out.println("Department:"+emp[i].department);
            System.out.println("Salary:"+emp[i].salary);
        }
    }

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Employee[] emp = new Employee[5];

        // Reading data for each employee
        for (int i = 0; i < emp.length; i++) {
            emp[i] = new Employee();  // Initialize each employee object
            emp[i].readData(sc);
        }

        // Calculate total salary of all employees in the "sales" department
        double totalSalesSalary = calculateSum(emp);
        System.out.println("Total salary of employees in Sales department: " +
totalSalesSalary);
```

```java
        //display details
        Employee obj=new Employee();
        display(emp);

        // Find the highest-paid employee in the "purchase" department
        Employee highestPaidEmp = highestPaid(emp);
        if (highestPaidEmp != null) {
            System.out.println("Highest paid employee in Purchase
department:");
            System.out.println("Name: " + highestPaidEmp.Name);
            System.out.println("Employee ID: " + highestPaidEmp.emp_id);
            System.out.println("Salary: " + highestPaidEmp.salary);
        } else {
            System.out.println("No employees found in the Purchase
department.");
        }

        sc.close();  // Close scanner after all input is completed
    }
}
```

Output:

```
Enter employee id:
1
Enter name:
suresh
Enter department:
sales
Enter age:
23
Enter designation:
manager
Enter salary:
23000
Enter employee id:
2
Enter name:
ram
Enter department:
purchase
Enter age:
34
Enter designation:
manager
Enter salary:
34000
Enter employee id:
3
Enter name:
```

```
ramesh
Enter department:
purchase
Enter age:
45
Enter designation:
manager
Enter salary:
45000
Enter employee id:
4
Enter name:
harish
Enter department:
sales
Enter age:
34
Enter designation:
manager
Enter salary:
34000
Enter employee id:
5
Enter name:
shyam
Enter department:
sales
Enter age:
34
Enter designation:
manager
Enter salary:
45000
Total salary of employees in Sales department: 102000.0
Name:suresh
Employee ID:1
Age:23
Designation:manager
Department:sales
Salary:23000.0
Name:ram
Employee ID:2
Age:34
Designation:manager
Department:purchase
Salary:34000.0
Name:ramesh
Employee ID:3
Age:45
Designation:manager
Department:purchase
Salary:45000.0
Name:harish
```

```
Employee ID:4
Age:34
Designation:manager
Department:sales
Salary:34000.0
Name:shyam
Employee ID:5
Age:34
Designation:manager
Department:sales
Salary:45000.0
Highest paid employee in Purchase department:
Name: ramesh
Employee ID: 3
Salary: 45000.0
```