

Assignment-zhuang

```
import java.util.Scanner;
import java.util.List;
import java.util.ArrayList;
public class Test {
    public static void main(String[] args) {
        // Create an ArrayList to store SalesEmployee objects.
        List<SalesEmployee> mylist = new ArrayList<>();
        // Initialize a SalesAgent object and set its attributes
        using setter methods.
        SalesAgent p1 = new SalesAgent();
        String fname1 = "Lily";
        p1.setFirstName(fname1);
        String lname1 = "Ann";
        p1.setLastName(lname1);
        String pps1 = "9238456B";
        p1.setPPS(pps1);
        // Add the SalesAgent object to the list.
        mylist.add(p1);
        // Initialize a SalesPerson object and set its attributes
        using setter methods.
        SalesPerson p2 = new SalesPerson();
        String fname2 = "Joe";
        p2.setFirstName(fname2);
        String lname2 = "John";
        p2.setLastName(lname2);
        String pps2 = "1234415A";
        p2.setPPS(pps2);
        // Add the SalesPerson object to the list.
        mylist.add(p2);
        // Initialize a SalesAgent object using a constructor with
        default values.
        SalesAgent p3 = new SalesAgent("Josh", "Love", "7461512C");
        // Add the SalesAgent object to the list.
        mylist.add(p3);
        // Loop through the list and prompt the user to enter sales
        for each
        // SalesEmployee.
        for (int i = 0; i < mylist.size(); i++) {
            System.out.print("Please enter sales for employee No.
            " + (i + 1) + ": ");
            Scanner myScan = new Scanner(System.in);
            double nums = myScan.nextDouble();
        }
    }
}
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        mylist.get(i).sales = nums;
        // Calculate commission for the SalesEmployee.
        mylist.get(i).calculateCommission();
    }
    // Use an enhanced for loop to print the details of each
    SalesEmployee.
    for (SalesEmployee p : mylist) {
        System.out.println(p.toString());
    }
}

```

```

import java.text.DecimalFormat;
public abstract class SalesEmployee {
    // Declare variables
    private String firstName;
    private String lastName;
    private static int bikeEmployeeNumber = 1;
    private String ppsNumber;
    protected double sales = 0.00;
    protected double commission = 0.00;
    private int employeeNumber = 0;
    // Constructor
    public SalesEmployee() {
        this.firstName = "";
        this.lastName = "";
        this.ppsNumber = "";
        this.employeeNumber = bikeEmployeeNumber++;
    }
    public SalesEmployee(String firstName, String lastName, String
    ppsNumber) {
        this.firstName = firstName;
        this.lastName = lastName;
        this.ppsNumber = ppsNumber;
        this.employeeNumber = bikeEmployeeNumber++;
    }
    // Set the firstName, lastName, PPS
    public void setFirstName(String name) {
        this.firstName = name;
    }
    public void setLastName(String lname) {
        this.lastName = lname;
    }
}

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    public void setPPS(String PPS) {
        this.ppsNumber = PPS;
    }
    // Get the value of variables
    public String getfirstName() {
        return firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public String getPPS() {
        return ppsNumber;
    }
    public int getEmployeeNumber() {
        return employeeNumber;
    }
    // Override toString method from Objective method;
    public String toString() {
        // Using DecimalFormat to format the numbers
        DecimalFormat df = new DecimalFormat("0.00");
        return "Employee name is: " + firstName + " " + lastName +
"; PPS number is: " + ppsNumber
        + ";\nEmployee number is: " + employeeNumber + ";
Commission is: " + df.format(commission)
        + "; Total sales is:" + sales + "; Type is " +
getClass().getSimpleName();
    };
    // Crate a abstract method called calculateCommission;
    public abstract void calculateCommission();
}

```

```

public class SalesAgent extends SalesEmployee {
    //Constructor
    public SalesAgent() {
        super();
    }
    public SalesAgent(String firstName, String lastName, String
ppsNumber) {
        super(firstName, lastName, ppsNumber);
    }
    public void calculateCommission() {
        commission = sales * 0.1;
    }
}

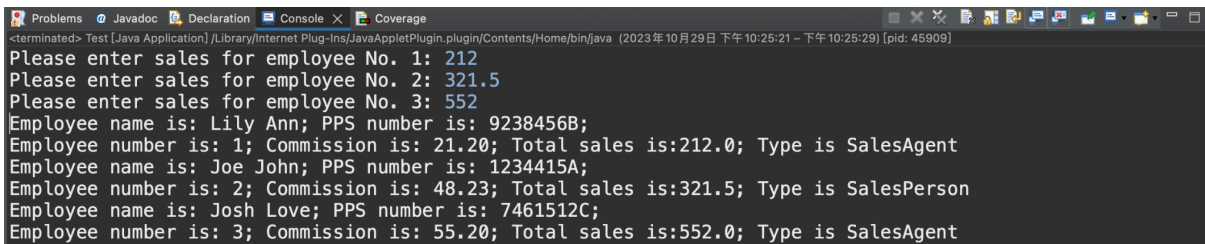
```

```

public class SalesPerson extends SalesEmployee {
    //Constructor
    public SalesPerson() {
        super();
    }
    public SalesPerson(String firstName, String lastName, String
ppsNumber) {
        super(firstName, lastName, ppsNumber);
    }
    public void calculateCommission() {
        commission = sales * 0.15;
    }
}

```

Consequence



```

<terminated> Test [Java Application] /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home/bin/java (2023年10月29日 下午10:25:21 - 下午10:25:29) [pid: 45909]
Please enter sales for employee No. 1: 212
Please enter sales for employee No. 2: 321.5
Please enter sales for employee No. 3: 552
Employee name is: Lily Ann; PPS number is: 9238456B;
Employee number is: 1; Commission is: 21.20; Total sales is:212.0; Type is SalesAgent
Employee name is: Joe John; PPS number is: 1234415A;
Employee number is: 2; Commission is: 48.23; Total sales is:321.5; Type is SalesPerson
Employee name is: Josh Love; PPS number is: 7461512C;
Employee number is: 3; Commission is: 55.20; Total sales is:552.0; Type is SalesAgent

```