Implementing MVC dedign pattern in Java

Suppose we want to bulid a payroll system. Inorder to do that we need to put in a lot of components (like employee class, Employee dashboard, Employee controller and some many other too involving the whole system).

i.e., we are actually trying to separate responsibilities for each class.
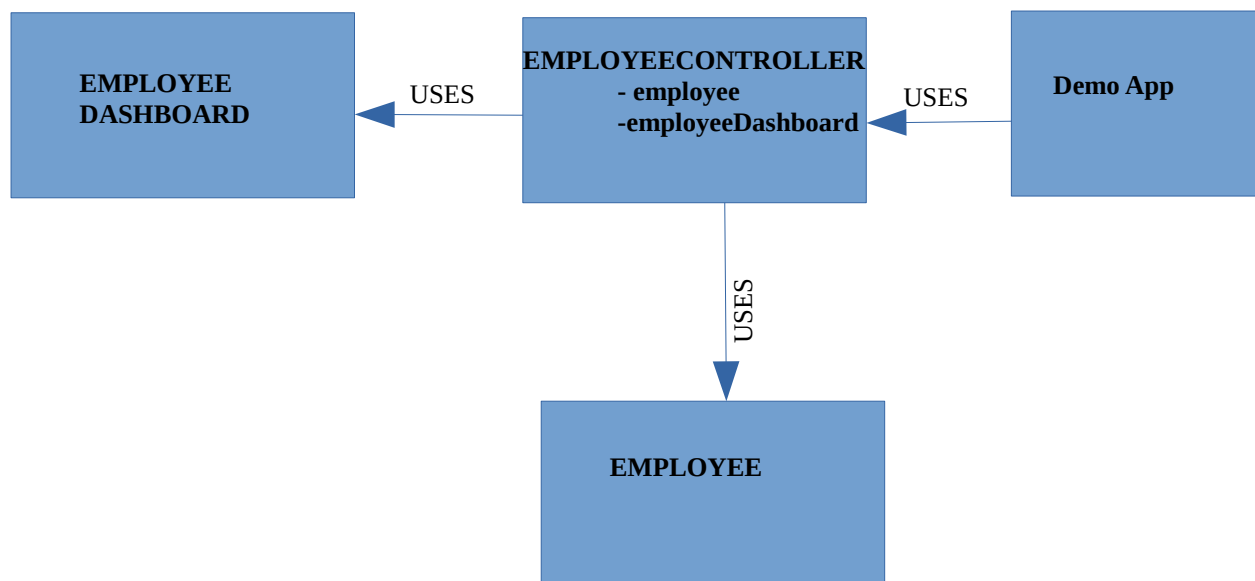
MVC (Model view controller takes all of those conformalized classes and structure them into different categories)

So for employee we'd be calling it as **Model**(and this real employee model has 'employee name', 'employee number', 'social security number',..)

And Employee Dashboard is the **view** in which payroll system admin can go and view employee details(like name of the employee, thier salary, thier birthdate,..)

And Employee controller which is going to be a connector between the employee model and the employee view which we call it as **controller**.

The client will use use employee controller which uses the employee instances and employee dashboard instances

Main.java

```java
class EmployeeController {

  private Employee employeeModel;

  private EmployeeDashboardView view;


  public EmployeeController(Employee employeeModel, EmployeeDashboardView view) {

    this.employeeModel = employeeModel;

    this.view = view;

  }


  public void setEmployee(String name, String lastName) {

    employeeModel.setFirstName(name);

    employeeModel.setLastName(lastName);

  }


  public String getEmployeeName() {

    return employeeModel.getFirstName() + " " + employeeModel.getLastName();

  }


  public void setSSN(String ssn) {

    employeeModel.setSsNumber(ssn);

  }


  public String getSSN() {

    return employeeModel.getSsNumber();

  }


  //Update our view
  public void updateDashboardView() {

    view.printEmployeeInformation(employeeModel);

  }
}
```

```java
class Employee {

    private String firstName;
    private String lastName;
    private String ssNumber;

    public double getSalary() {
        return salary;
    }

    public void setSalary(double salary) {
        this.salary = salary;
    }

    private double salary;

    public String getFirstName() {
        return firstName;
    }

    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }

    public String getLastName() {
        return lastName;
    }

    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
```

```java
    public String getSsNumber() {

        return ssNumber;

    }


    public void setSsNumber(String ssNumber) {

        this.ssNumber = ssNumber;

    }

}


class EmployeeDashboardView {


    public void printEmployeeInformation(Employee employee) {

        System.out.println("Name: " + employee.getFirstName() + " " + employee.getLastName());

        System.out.println("SSN: " + employee.getSsNumber());

        System.out.println("Salary: " + employee.getSalary());


    }

}


public class Main {


    public static void main(String[] args) {


        Employee employee = retrieveEmployeeFromServer();


        //Creating our view to which we'll write our employee information into

        EmployeeDashboardView view = new EmployeeDashboardView();


        //Createing our controller

        EmployeeController controller = new EmployeeController(employee, view);
```
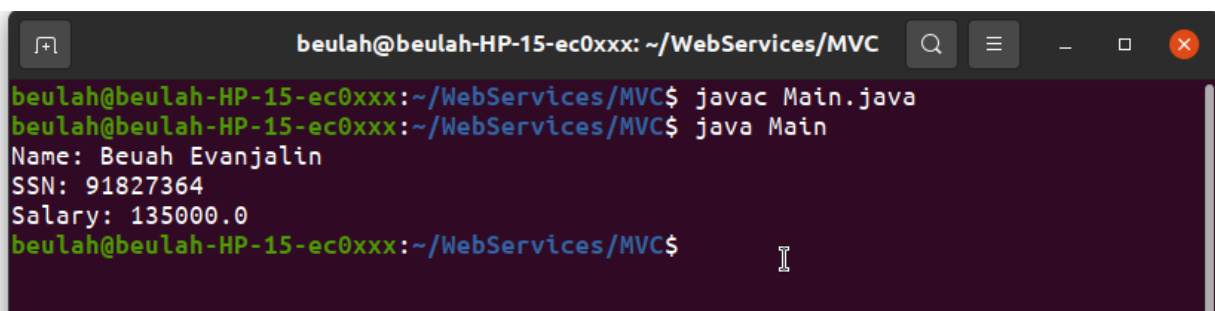
```java
//      controller.setEmployee(employee.getFirstName(), employee.getLastName());

        controller.updateDashboardView();

    }

    public static Employee retrieveEmployeeFromServer() {
        Employee employee = new Employee();
        employee.setSsNumber("91827364");
        employee.setFirstName("Beuah");
        employee.setLastName("Evanjalin");
        employee.setSalary(135000);

        return employee;

    }
}
```