Employee Management System

package ems;  
  
public class Employee {  
 //Attributes - instance variables  
 private int id;  
 private String name;  
 private String designation;  
 private double salary;  
  
 //Constructor  
 public Employee(int id, String name, String designation, double salary) {  
 this.id = id;  
 this.name = name;  
 this.designation = designation;  
 this.salary = salary;  
 }  
  
 //Getters & Setters  
 public int getId() {  
 return id;  
 }  
  
 public void setId(int id) {  
 this.id = id;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
  
 public String getDesignation() {  
 return designation;  
 }  
  
 public void setDesignation(String designation) {  
 this.designation = designation;  
 }  
  
 public double getSalary() {  
 return salary;  
 }  
  
 public void setSalary(double salary) {  
 this.salary = salary;  
 }  
  
 //Override the toString()  
  
 @Override  
 public String toString() {  
 return "Employee ID = " + id + ", Name = "+name+ ", Designation = "+ designation + ",Salary = "+ salary;  
 }  
}

2.

package ems;  
  
public interface EmployeeManagement {  
 void addEmployee(Employee employee);  
 void viewAllEmployees();  
 void updateEmployee(int empId);  
 void deleteEmployee(int empId);  
 Employee findEmployeeById(int empId);  
}

3.

package ems;  
  
import java.util.ArrayList;  
import java.util.List;  
import java.util.Scanner;  
  
public class EmployeeManagementImpl implements EmployeeManagement{  
  
 private List<Employee> employeeList = new ArrayList<>();  
  
 //To add an employee  
 @Override  
 public void addEmployee(Employee employee){  
 employeeList.add(employee);  
 System.*out*.println("Employee Added Successfully");  
 }  
  
 //Display all employees  
 @Override  
 public void viewAllEmployees() {  
 if (employeeList.isEmpty()){  
 System.*out*.println("Employees not found");  
 } else {  
 System.*out*.println("List of Employees: ");  
 for(Employee employee : employeeList){  
 System.*out*.println(employee);  
 }  
 }  
 }  
  
 //To update an employee  
 @Override  
 public void updateEmployee(int empId){  
 Employee employee = findEmployeeById(empId);  
 if(employee != null ){  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.println("Enter new name: ");  
 employee.setName(scanner.nextLine());  
 System.*out*.println("Enter new designation: ");  
 employee.setDesignation(scanner.nextLine());  
 System.*out*.println("Enter new Salary: ");  
 employee.setSalary(scanner.nextDouble());  
 System.*out*.println("Employee Updated Successfully");  
 } else {  
 System.*out*.println("Employee Not Found");  
 }  
 }  
  
 //To find employee by id  
 public Employee findEmployeeById(int empId){  
 for (Employee employee : employeeList){  
 if(employee.getId() == empId){  
 return employee;  
 }  
 }  
 return null;  
 }  
  
 //To delete an employee  
 public void deleteEmployee(int empId){  
 Employee employee = findEmployeeById(empId);  
 if(employee != null){  
 employeeList.remove(employee);  
 System.*out*.println("Employee Deleted Successfully");  
 }else {  
 System.*out*.println("Employee Not Found");  
 }  
 }  
  
}

4.

package ems;  
  
import java.util.Scanner;  
  
public class EmployeeManagementSystem {  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 EmployeeManagementImpl management = new EmployeeManagementImpl();  
 boolean exit = false;  
  
 System.*out*.println("Welcome to EMS");  
 while(!exit){  
 System.*out*.println("\n Menu : ");  
 System.*out*.println("1. Add Employee");  
 System.*out*.println("2. View All Employees");  
 System.*out*.println("3. Update Employee");  
 System.*out*.println("4. Delete an Employee");  
 System.*out*.println("5. Exit");  
 System.*out*.println("Enter your choice: ");  
 int choice = scanner.nextInt();  
  
 switch(choice){  
 case 1:  
 System.*out*.println("Enter Employee Id: ");  
 int id=scanner.nextInt();  
  
// scanner.nextLine();  
 System.*out*.println("Enter Employee Name:");  
 String name = scanner.nextLine();  
  
 System.*out*.println("Enter Employee Designation: ");  
 String designation = scanner.nextLine();  
  
 System.*out*.println("Enter Employee Salary: ");  
 double salary = scanner.nextDouble();  
  
 Employee employee = new Employee(id,name, designation, salary);  
 management.addEmployee(employee);  
 break;  
  
  
 case 2:  
 management.viewAllEmployees();  
 break;  
  
 case 3:  
 System.*out*.println("Enter Employee ID to update: ");  
 int updateID = scanner.nextInt();  
 management.updateEmployee(updateID);  
 break;  
  
 case 4:  
 System.*out*.println("Enter Employee ID to delete: ");  
 int deleteId = scanner.nextInt();  
 management.deleteEmployee(deleteId);  
 break;  
  
 case 5:  
 exit = true;  
 System.*out*.println("Good Bye!!!!!");  
 break;  
  
 default:  
 System.*out*.println("Invalid Choice!");  
 }  
 }  
 scanner.close();  
  
 }  
}