**Exercise 10: Implementing the MVC Pattern**

**Code:**

**Student Class: -**

public class Student {  
 public String name;  
 public String id;  
 public String grade;  
  
 public Student(String name, String id, String grade) {  
 this.name = name;  
 this.id = id;  
 this.grade = grade;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
  
 public String getId() {  
 return id;  
 }  
  
 public void setId(String id) {  
 this.id = id;  
 }  
  
 public String getGrade() {  
 return grade;  
 }  
  
 public void setGrade(String grade) {  
 this.grade = grade;  
 }  
}

**StudentView Class: -**

public class StudentView {  
 public void displayStudentDetails(String name,String id,String grade){  
 System.*out*.println("Student Details:");  
 System.*out*.println("Name : "+name);  
 System.*out*.println("Id : "+id);  
 System.*out*.println("Grade : "+grade);  
 }  
}

**StudentController Class: -**

public class StudentController {  
 private Student model;  
 private StudentView view;  
  
 public StudentController(Student model,StudentView view){  
 this.model = model;  
 this.view = view;  
 }  
  
 public void setStudentName(String name){  
 model.setName(name);  
 }  
  
 public void setStudentId(String id){  
 model.setId(id);  
 }  
  
 public void setStudentGrade(String grade){  
 model.setGrade(grade);  
 }  
  
 public String getStudentName(){  
 return model.getName();  
 }  
  
 public String getStudentId(){  
 return model.getId();  
 }  
  
 public String getStudentGrade(){  
 return model.getGrade();  
 }  
  
 public void updateView(){  
 view.displayStudentDetails(model.getName(),model.getId(),model.getGrade());  
 }  
}

**Main Class: -**

public class Main {  
 public static void main(String[] args){  
 Student student=new Student("Priya","101","6");  
 StudentView view=new StudentView();  
 StudentController controller=new StudentController(student,view);  
 controller.updateView();  
 System.*out*.println();  
 controller.setStudentName("Ram");  
 controller.setStudentId("102");  
 controller.setStudentGrade("7");  
 controller.updateView();  
 }  
}

**Output:**

**A screenshot of a computer program

AI-generated content may be incorrect.**