**Problem 5:**

**Write a minimal program implementing MVC**

**Solution:-**

**Course file**

public class Course

{

private String CourseName;

private String CourseID;

private String CourseCategory;

public String getID()

{

return CourseID;

}

public void setID(String id)

{

this.CourseID=id;

}

public String getName()

{

return CourseName;

}

public void setName(String name)

{

this.CourseName=name;

}

public String getCategory()

{

return CourseCategory;

}

public void setCategory(String category)

{

this.CourseCategory=category;

}

}

**CourseController**

public class CourseController

{

private Course model;

private CourseView view;

public CourseController(Course model, CourseView view)

{

this.model=model;

this.view=view;

}

public void setCourseName(String name)

{

model.setName(name);

}

public String getCousreName()

{

return model.getName();

}

public void setCourseID(String id)

{

model.setID(id);

}

public String getCousreID()

{

return model.getID();

}

public void setCourseCategory(String category)

{

model.setCategory(category);

}

public String getCousreCategory()

{

return model.getCategory();

}

public void updateView()

{

view.printCourseDetails(model.getName(), model.getID(), model.getCategory());

}

}

**CourseView**

class CourseView

{

public void printCourseDetails(String CourseName, String CourseID, String CourseCategory)

{

System.out.println("Course Details");

System.out.println("Course Name: "+CourseName);

System.out.println("Course ID: "+CourseID);

System.out.println("Course Category: "+CourseCategory);

}

}

**MVCPattern**

public class MVCPattern

{

public static void main(String args[])

{

Course model=retriveCouseFromDatabase();

CourseView view=new CourseView();

CourseController controller=new CourseController(model,view);

controller.updateView();

controller.setCourseName("Python");

System.out.println("After updating, Curse details are as follows......");

controller.updateView();

}

private static Course retriveCouseFromDatabase()

{

Course course=new Course();

course.setName("Java");

course.setID("01");

course.setCategory("Programming");

return course;

}

}

**Output: -**

