# Class Diagrams - Student Information
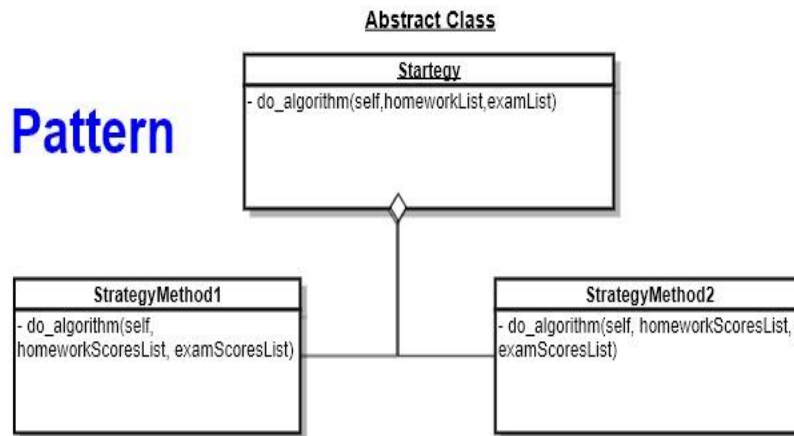
### These classes are defined in the  both Presentation and business layer.

**Abstract Class**

## Strategy Pattern

| Startegy |
|---|
| - do_algorithm(self,homeworkList,examList) |

| StrategyMethod1 |
|---|
| - do_algorithm(self, homeworkScoresList, examScoresList) |

| StrategyMethod2 |
|---|
| - do_algorithm(self, homeworkScoresList, examScoresList) |

## Observer Pattern

**Abstract Class**

| Subject |
|---|
| attachObserver(self, observer) |
| notifyObservers(self, observer): |

**Abstract Class**

| Observer |
|---|
| update(self) |

| Student |
|---|
| - __student_name |
| - __hw-Scores[] |
| - __ex-Scores[] |
| - __Observers[] |
| - name(self) |
| - attachObserver(self, observer) |
| - notifyObservers(self) |
| - addHWScore(self, score) |
| - addExamScore(self, score) |
| - getAverage(self, strategy=StrategyMethod1()) |

| Course |
|---|
| - __CourseTitle |
| - __CourseNo |
| - __Students[] |
| - __Observers[] |
| - notifyObservers(self) |
| - attachObserver(self, observer) |
| - courseNo(self) |
| - courseTitle(self) |
| - addStudent(self, student) |
| - getStudentAverages(self) |

| RecordOffice |
|---|
| - __Courses[] |
| - __StudentRecords[] |
| - addCourse(self, course) |
| - getStudentRecords(self) |
| - __getGrade(self, average) |
| - __updateStudentGrades(self) |
| - update(self) |
| - __str__(self) |