



```

class Student {
  name <String>
  id <String>
  score <Score>
}

class Score {
  scores <Map> {subject => grade}

  getTotalScore(){
    input: none
    output: <Number> (total scores)
  }

  getAverage(){
    input: none
    output: <Number> (average)
  }
}

class Scoresheet {
  students <Set> {Student} (students whose scores need to be printed)
  allStudents <Map> {id => Student} (all input students)
  scoresheetTitle <String>

  appendStudent(){
    input: <Student>
    output: none
  }

  getStudentTotalScores(){
    input: none
    output: <Array> (all students' total scores)
  }

  getAverage(){
    input: none
    output: <Number> (the average of all students' total score)
  }

  getMedian(){
    input: none
    output: <Number> (the median of all students' total score)
  }

  printScoreSheet(){
    input: none
    output: <String> (the scores of selected students)
  }
}

```

```

function inInputValid(){
  input: <String> ('name, id, subject: grade,...')
  output: <Boolean>
}

function isStudentIdValid(){
  input: <String> ('id1, id1, id3,...')
  output: <Boolean>
}

function addScores(){
  input: <String> ('name, id, subject: grade,...')
  output: <String> (student's name)
}

function showHints(){
  input: <String> (prompt)
  output: <String> (user's input according to the prompt)
}

function printScores(){
  input: <String> ('id1, id1, id3,...')
  output: none
}

```