

Student

Instruction:

- Write the class **Student** according to the following specifications

Constructor

- **constructor(name, age):** To set the values of property **name**: Name and **age**: Age as specified, and to create an empty array in the property **courses**: Courses.

Properties

- **name**: Name, type: string
- **age**: Age, type: number
- **courses**: Courses, type: array of objects
 - {
 - name**: Course Name, type: string,
 - grade**: Grade, type: String ["A", "B+", "B", "C+", "C", "D+", "D", "F"]
 - }

Methods

- **addCourse(course):** Adds a course. Adds a course object (course consisting of {name: Course Name, type: string, grade: Grade, type: string}) to the property **courses**: Courses. If addition is possible, **add to the first position of the array** and **return the added course object. If the value is null or undefined, return null.**
- **removeCourse(courseName):** Removes a course. **Delete the course object from courseName: Course Name** specified, compared in the property courses: Courses. Shift the array elements to close gaps. **If not found, return -1.**
- **getStudentInfo():** Retrieves student details. **Returns an object {name: Name, type: string, age: Age, type: number, courses: Courses, averageGrade: AverageGrade }.**
- **isEnrolled(courseName):** Checks if the student is currently enrolled in a specified course by name. **Returns true if the student is enrolled in the course, otherwise false.**
- **listAllCourses():** **Returns an array of strings**, each representing a course and its grade, for the student. This method is useful for quickly viewing all of a student's courses and grades.
- **getHonorClass():** Determines the student's honor class based on their average grade. Returns a string indicating the honor class
The classification is as follows:
 - "Summa Cum Laude": For students with an average grade of 3.9 or higher.

- "Magna Cum Laude": For students with an average grade between 3.7 and 3.89, inclusive.
- "Cum Laude": For students with an average grade between 3.5 and 3.69, inclusive.
- "Honorable Mention": For students with an average grade between 3.0 and 3.49, inclusive.
- "No honors": For students with an average grade below 3.0.

For **retake Module 1.1**, **getAverageGrade()**:

getAverageGrade(): Retrieves the average grade. **return the average grade**, with the grades defined as [A=4, B+=3.5, B=3, C+=2.5, C=2, D+=1.5, D=1, F=0] calculated from grade: Grade in the property courses: Courses. In cases where a value is not a grade, **return undefined**.

Initiate code:

```
class Student {  
  // Insert your code here  
  
}  
  
// Creating a new Student object for stu  
let stu = new Student("Scott", 17);  
  
// Adding courses to stu's record  
stu.addCourse({name: "Math", grade: "A"});  
stu.addCourse({name: "Programming", grade: "B+"});  
stu.addCourse({name: "Network", grade: "B+"});  
stu.addCourse({name: "GenEd", grade: "D"});  
  
//Average Grade  
console.log(stu.getAverageGrade());  
  
// Listing all courses  
console.log(stu.listAllCourses());  
  
// Removing "GenEd" course  
console.log(stu.removeCourse("GenEd"));  
  
// Attempting to remove a non-existent course "History"  
console.log(stu.removeCourse("History"));  
  
// Checking enrollment in "Programming" and "History"  
console.log(stu.isEnrolled("Programming"));  
console.log(stu.isEnrolled("History"));  
  
// Getting student info after updates  
console.log(stu.getStudentInfo());  
  
// Determining honor class after updates  
console.log(stu.getHonorClass());
```