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## Omer's Tasks – Swift/Python Project

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Create a class named Student with the following **instance variables**:

| Name              | Type       | Description                              |
|-------------------|------------|--|
| name              | String     | Student's full name                      |
| year              | Int        | Grade level (9–12)                       |
| grades            | Array<Int> | List of numeric grades                   |
| gpa               | Float      | Student's current GPA (0.0–4.0)          |
| perfectAttendance | Bool       | Tracks if student has perfect attendance |

Write the following functions inside the class:

- (a) `printGrades()` – Prints every grade in the `grades` array.
- (b) `printInfo()` – Prints:  
This is {name}. They are in {year}th grade and currently have a GPA of {gpa}.
- (c) `hasFailingGrades()` – Returns `true` if any grade is below 65.
- (d) `calcAverage()` – Returns the average of all grades as a `Float`.
- (e) `highestGrade()` – Returns the highest grade in the array. Print out the updated array.
- (f) `dropLowestGrade()` – Removes the lowest grade from the array.
- (g) `honorRoll()` – Returns `true` if  $\text{GPA} \geq 3.5$  **and** perfect attendance is `true`.
- (h) `letterGrade()` – Returns the array of the students' grade converted from a number grade to a letter grade.  
Use the scale below:

$$90-100 = A, \quad 80-89 = B, \quad 70-79 = C, \quad 60-69 = D, \quad < 60 = F$$

- (i) `addCurve(points: Int)` - This function adds the given number of points to **every** grade in the array, but no grade may exceed 100. For example: `grades = [50, 70, 60, 90, 95, 99]`  
`addCurve(5) --> [55, 75, 65, 95, 100, 100]`
- (j) `updateGPA()` – Recalculates the GPA based on numeric grades. Basically, take the average grade in grades, divide it by 100, and then multiply it by 4 giving you the new GPA. Then, if they are in 9th grade, that is their new GPA. If in 10th grade, their new GPA is  $(\text{current GPA} + \text{new GPA})/2$ . If in 11th grade, their new GPA is  $(\text{current GPA} * 2 + \text{new GPA})/3$ . If in 12th grade, their new GPA is  $(\text{current GPA} * 3 + \text{new GPA})/4$