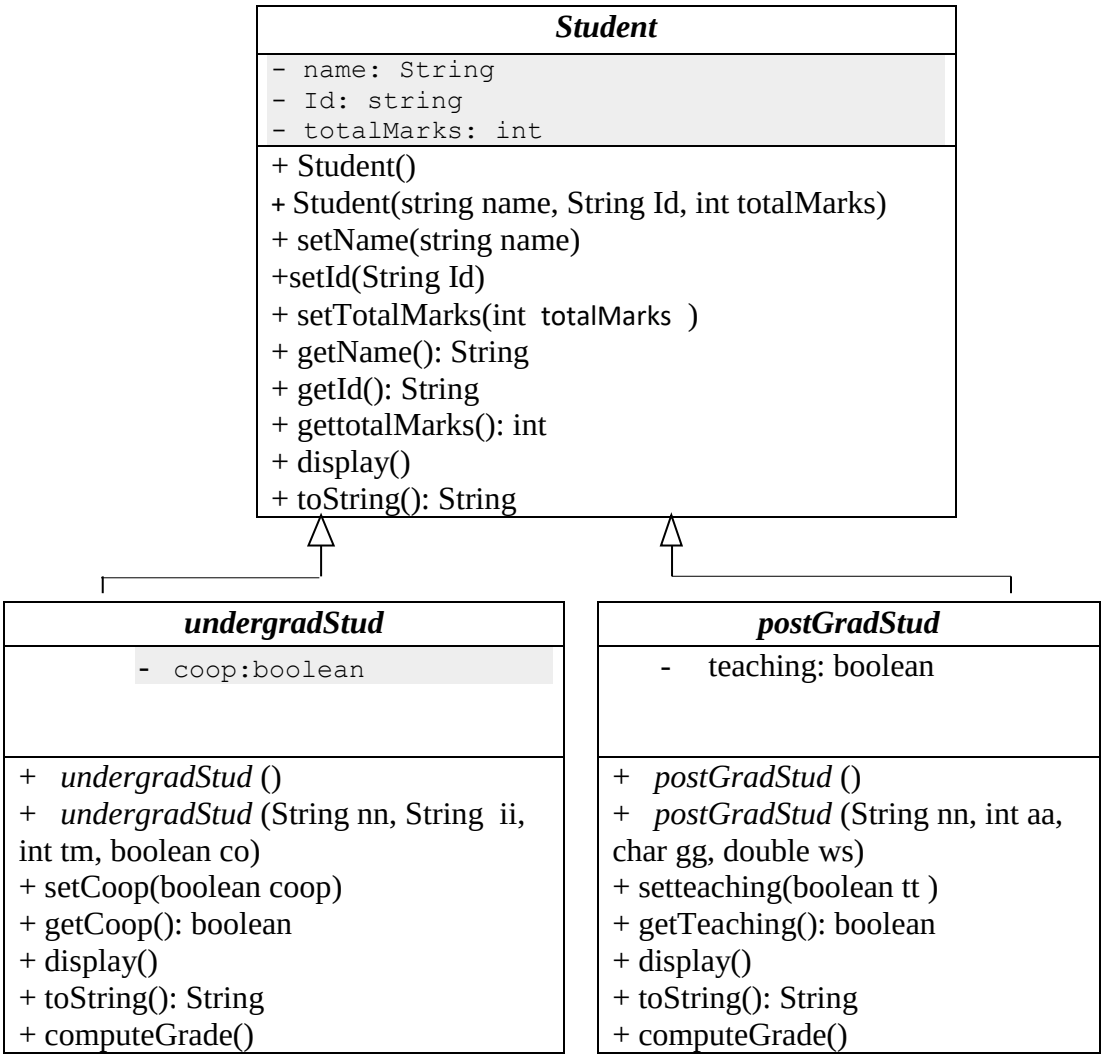
جامعة اليمامة
Al Yamamah University

COLLEGE OF ENGINEERING AND ARCHITECTURE
ACADEMIC YEAR 2022-2023
FALL SEMESTER

COURSE : CIS 104

Lab 9
ABSTRACT CLASSES

Consider the above UML and read the following description.



The method ***computeGrade()*** is computed as follows:

- For ***undergradStud***: if totalMarks is greater than 60 then the student is "Pass" otherwise he is "Fail".
- For postG***radStud***: if totalMarks is greater than 70 then the student is "Pass" otherwise he is "Fail".

Question 1: Write in Java the classes: ***Student***, ***undergradStud*** and ***postGradStud***.

Question 2: Write a main method to test your methods.

1.1 Create an array of size 4 of type Student.
1.2 Add to the array 3 objects of type ***undergradStud*** and an object of type ***postGradStud***
1.3 Compute grade for all the students and count the number of objects of type ***undergradStud*** using the operator ***instanceof***.

Hint: When the method computeGrade(is computed differently in the subclasses then the method should be abstract in the superclass.