

## COMP2000: Software engineering 2

### Lab 3: Standard Java

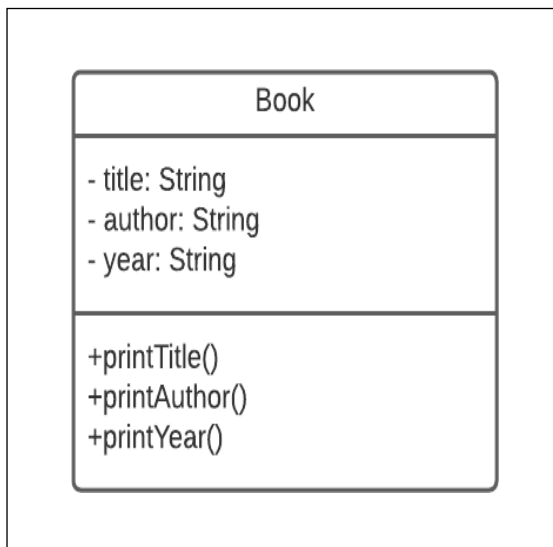


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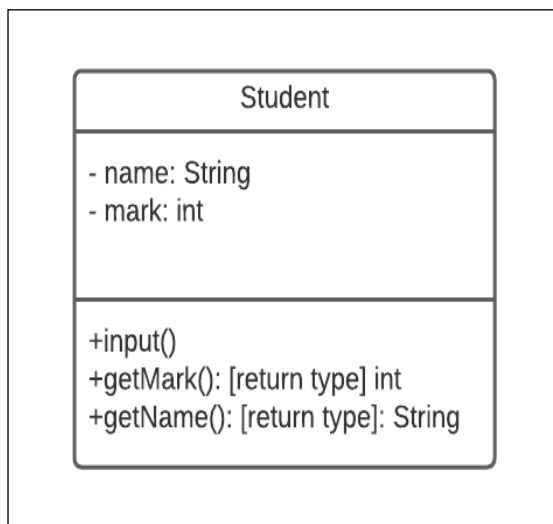
**Set of activities to work through during your own time**

**Note: Consider any issues might arise (use Exception)**

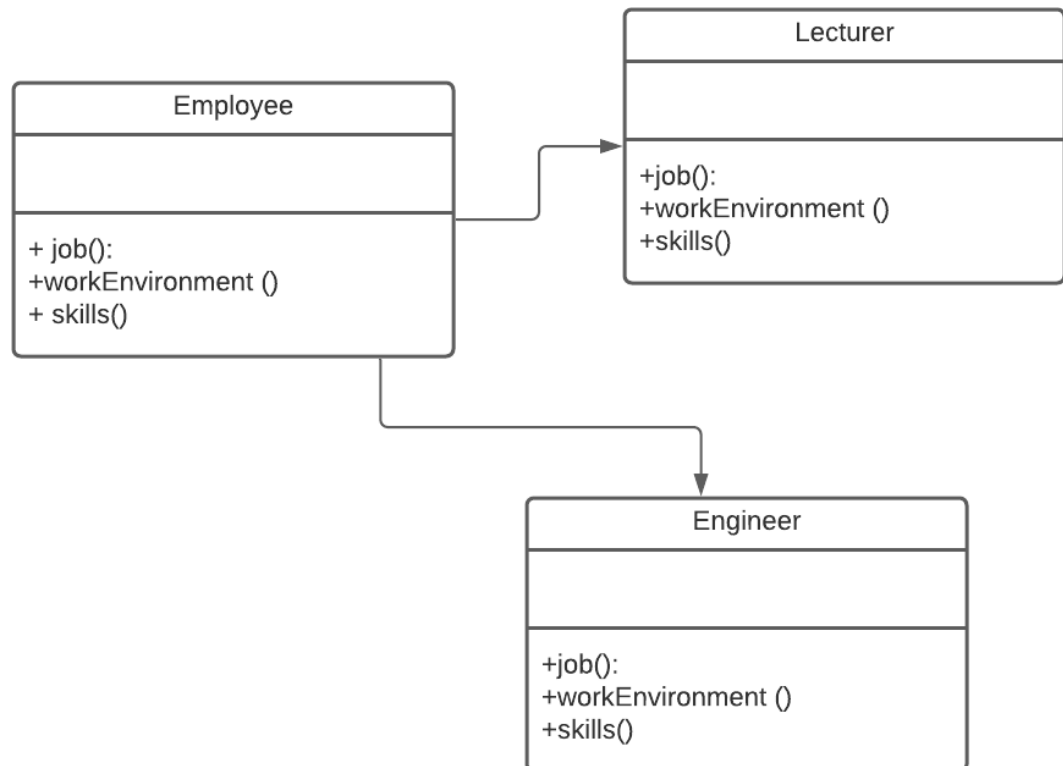
- 1- write a java program to create a list of Books considering the class Book below; call the related methods from a different class.



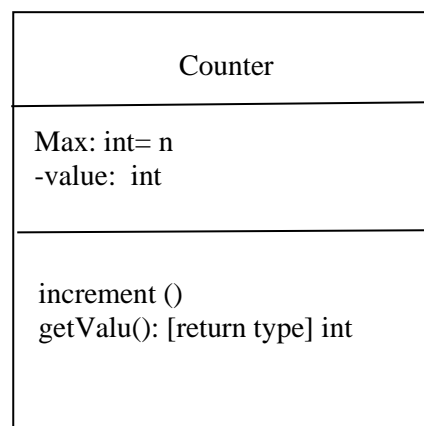
- 2- write a java program to store students in an Array List and then print out names of all students who passed (the mark should be 40 or more to pass) – enable user input (5-10 students).



- 3- write a java program to create the classes, Lecturer and Engineer to extend the abstract class and implement its methods as shown the diagram below.



- 4- Write a java program to create Triangle, Circle and Square Classes that implement the interface, Shape, which has two abstract methods draw() and howManySides().
- 5- Write a java program to create Roses, Palm and Strawberry Classes to implement the interface, Plant, that has three abstract methods kind(), taste() and colour().
- 6- Write a Java program to create the following class to increase the value by one until it gets equal to the value of MAX.



- 7- Create a java class, Calculator, which should Add, Multiply, Divide and Subtract two numbers, x and y, then call them in the main method.
- 8- Write a java program to call the divide and add methods of the Calculator class that you implemented in previous activity to add and divide two numbers x and y (user input). Note the call should be performed from a different class e.g. class Main.