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SE 350

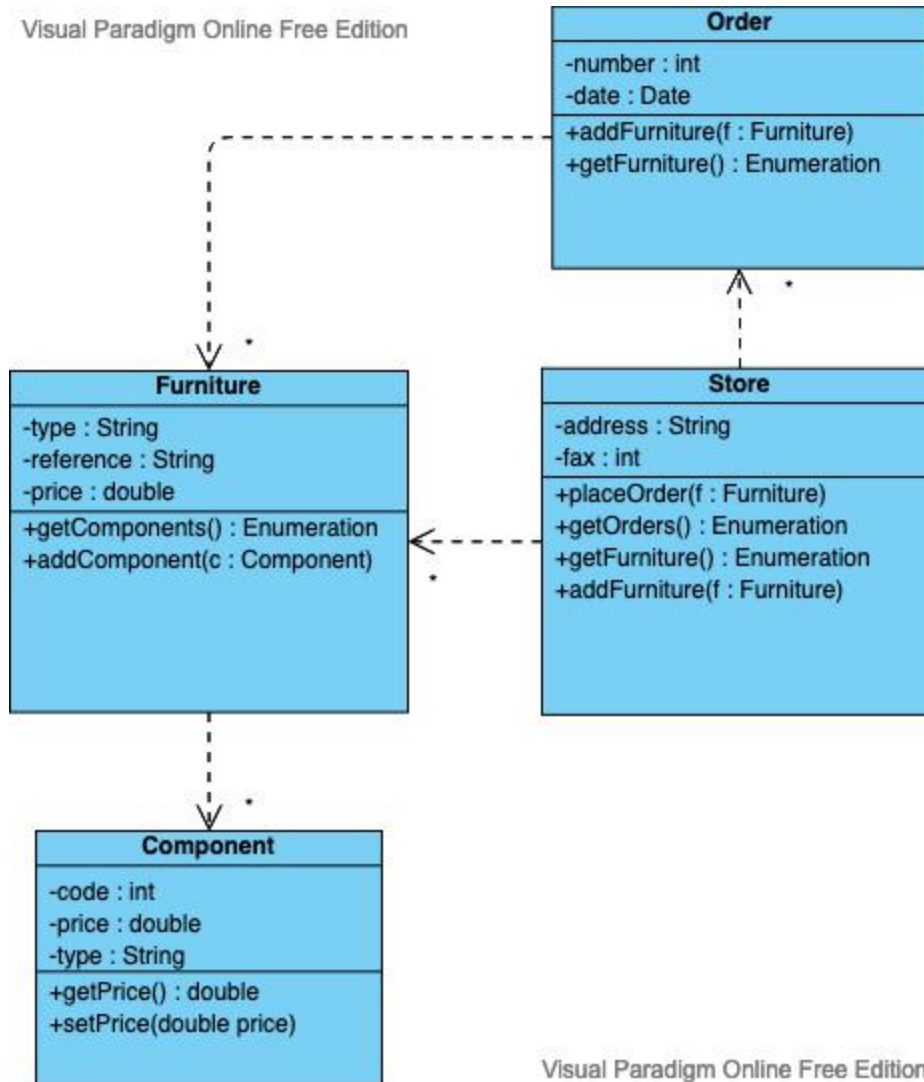
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### Problem 1

#### 1. Exercise 1:

1. True because one of the main purposes of inheritance is to promote code reusability and reduce code redundancy. This includes sharing methods and attributes between parent and sub classes.
2. False because it is legal to have a class be declared as final and extend another class so long as the parent class is not final itself.
3. False because when you specialize you can and probably should rewrite members of the superclass. Also when you generalize you could end up saving on writing lines of codes by sharing members in the superclass.
4. True because the “super” keyword can call superclass methods and constructors and the “this” keyword allows you to call methods and constructors of the same class.
5. False because there are other programming languages which have multiple inheritance such as C++. Java doesn't have multiple inheritance in order to avoid ambiguity and avoid the diamond problem.
6. True because the subclass will always inherit all of the members of the superclass and it would override the features of the previous class and/or add new features.

7. False because the relationship between team and player can be more accurately represented by having an array of players on a team which would be association rather than inheritance.
  8. False because you cannot generalize Team and Players in a tournament to be derived from a base class.
  9. False because you can generalize both to inherit from a base class.
  10. False because an interface can only extend other interfaces.
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2. All classes for Exercise 2 are located in package "exercise2."
  3. All classes for Exercise 3 are located in package "exercise3."
  4. All classes for Exercise 4 are located in package "exercise4."
  5. All classes for Exercise 5 are located in package "exercise5."



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