**1. What is the difference between interfaces and abstract classes? Provide an example where you would use each.**

An interface is used to define common functionality, without actually implementing, it is used for unrelated classes to share the same behavior, for example a Vehicle interface can be used on a Car and Bicycle class ensuring that they both have a start() and stop() method.

On the other hand, abstract classes can have both abstract and implemented methods, for example an Animal abstract class can have an eat() method that multiple animals use (Cat, Dog), but a makeSound() method that is abstract for each to define with different functionality.

**2. What are the advantages of using interfaces?**

* **Allows multiple inheritance**: It allows a class to implement multiple interfaces
* **Enables abstraction**: It allows for defining method signatures without implementing
* **Ensures consistency**: It forces every class that inherits the interface to stick to the same method specifications

**3. Give an example of inheritance i.e., real life business example where it could be used?**

For example, in a banking system, the **BankAccount** class acts as a parent that holds shared features like viewing a balance or depositing money. A **SavingsAccount** class inherits those methods and adds extra interest calculation functionality and a CheckingAccount inherits the parent methods and adds its own functionality of having an overdraft limit, this allows code to be reused and tweaked to specific needs.