Reading Assignment

Question:

- What are the advantages of Polymorphism?

Answer :
-Polymorphism allows a more flexible code. We can write code that works on the superclass type and can be easily extended to work with any subclass.
-Polymorphism allows to reuse code by writing methods that can operate on objects of a superclass, and these methods will automatically work with objects of any subclass.
-Polymorphism allows method overloading, where multiple methods can have the same name but different parameter lists.

Question:

- How is Inheritance useful to achieve Polymorphism in Java?

Answer:
Inheritance allows method overriding, which means subclass to implement a method that is already defined in its superclass.
With inheritance, objects of a subclass can be treated as objects of their superclass, so we can use a reference variable of a superclass to refer to an object of any subclass.

Question:

- What are the differences between Polymorphism and Inheritance in Java

Answer:
-Inheritance is a mechanism where a class acquires the properties and behaviors of another class. It promotes code reusability and establishes a relationship between a superclass and a subclass.

-Polymorphism allows objects of different types to be treated as objects of a common type. It can be achieved through method overloading and method overriding. Method overloading involves having multiple methods with the same name but different parameters, while method overriding occurs when a subclass provides a specific implementation for a method already defined in its superclass.