

Q. Discuss the ways using suitable examples in which inheritance promotes software reuse, saves time during program development and helps prevent errors.

Ans: Inheritance allows developers to create subclasses that reuse code declared already in a superclass. Avoiding the duplication of common functionality between several classes by building a class inheritance hierarchy can save developers a considerable amount of time. Similarly, placing common functionality in a single superclass, rather than duplicating the code in multiple unrelated classes, helps prevent the same errors from appearing in multiple source-code files. If errors occur in the common functionality of the superclass, the software developer needs to modify only the superclass's.