Implement a frame system with inheritance that  
supports the definition of three kinds of slots:  
properties of a class that may be inherited by  
subclasses, properties that are inherited by instances of  
the class but not by subclasses, and properties of the  
class and its subclasses that are not inherited by  
instances (class properties). Discuss the benefits, uses,  
and problems with this distinction

Answer:

Slot type 1:

Class Animal

Slot : count legs :4

Class 4leggedAnimal inherits Animal

Slot: count legs:4

Slot type 2:

Class Animal

Slot : count legs :4

deer

instance of Animal

slot : count legs:4

Class 4leggedAnimal inherits Animal

Slot: foodhabit: herbivore

Slot type 3:

Class Animal

Slot : count legs :4

Class 4leggedAnimal inherits Animal

Slot: count legs:4

Slot: foodhabit: herbivore

deer

instance of Animal, 4leggedAnimal

slot: foodhabit: omnivore