Ex1:

1. Create a package “**Base**”, includes:
2. A class “**Animal**”, includes:

+ instance variables: id, name

+ Some methods: constructors, getter, setters (use try.. catch to check name<>””)

1. A class “**Cat**” extends Animal

+ Some extend variables: sex, colorHair

+ Some methods: constructors, getters, setters (use try…catch to check sex=”male/female”, type is any types as: “”), override toString() method to return a string : **id+”;”+name+”;”+sex+”;”+colorHair**

1. Create another package “**Process**”, includes an interface called “**I\_Process”:**  
    boolean add(Animal x)

Animal update(id) : Làm xong trả về địa chỉ đã sửa

Animal Delete(id) : làm xong trả về địa chỉ **object** vừa xóa

Animal find(id): trả về địa chỉ object trùng mã

void SortByColor()

1. Create a package “**Manager**”, includes:
2. A class called “**CatManager**” to manager list of cats (***using HashSet<Animal>***), it implements above interface I\_Process. This class includes:

+ Instance variables: HashSet<Animal> list

+ Class variable: price =100000

+ Implements all abstract

+ A main method that has a menu:

1. Add a cat
2. Update a cat and display the updated cat
3. Delete a cat and display the deleted cat
4. Find a cat and display
5. Sort by color
6. *Exit*