

Inheritance - Cats and Dogs

```
public class Pet
{private String na;

    public Pet(String n)
    {na = n;
     }

    public void talk()
    {System.out.println("Grr");
     }

    public String getName()
    {return na;
     }

}
```

```
public class Cat extends Pet
{

    public Cat(String n)
    {super(n);
     }

    public void talk()
    {System.out.println("Meow");
     }

    public void sleep()
    {System.out.println("I am sleeping");
     }
}
```

```

public class Dog extends Pet
{

    public Dog(String n)
    {super(n);
    }

    public void talk()
    {System.out.println("Bark");
    }

    public void chase()
    {System.out.println("i am chasing");
    }

}

```

```

import java.util.Scanner;
import java.util.*;
public class petclient {
static Scanner in = new Scanner(System.in);

public static void main() {
    ArrayList<Pet> pets = new ArrayList<Pet>();

    pets.add(new Dog("Max"));
    pets.add(new Pet("Tom"));
    pets.add(new Cat("Helen"));
    pets.add(new Dog("Fred"));
    pets.add(new Dog("Steve"));
    pets.add(new Cat("Nancy"));
    pets.add(new Dog("Perry"));

    for (int x=0; x< pets.size(); x++)
        {System.out.print(pets.get(x).getName());
        pets.get(x).talk();
        }
    }
}

```

Why Doesn't This Work?

```
import java.util.Scanner;
import java.util.*;
public class petclient {
    static Scanner in = new Scanner(System.in);

    public static void main() {
        ArrayList<Pet> pets = new ArrayList<Pet>();

        pets.add(new Dog("Max"));
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        pets.add(new Cat("Nancy"));
        pets.add(new Dog("Perry"));

        for (int x=0; x< pets.size(); x++)
            {System.out.print(pets.get(x).getName());
              pets.get(x).talk();
              pets.get(x).sleep();
            }
        }
    }
```