```
import java.util.Scanner;
interface Animal {
   void eat();
   void sleep();
   void move();
   void reproduce();
   void communicate();
}
abstract class Bird implements Animal {
   private String species;
   public Bird(String species) {
       this.species = species;
       // System.out.println(species + " is a bird");
   }
   public void move() {
        System.out.println(species + " moves like a bird");
   abstract void fly();
   public String getSpecies() {
        return species;
   }
}
abstract class Reptile implements Animal {
   private String species;
   public Reptile(String species) {
       this.species = species;
        System.out.println(species + " is a reptile");
   }
   public void move() {
        System.out.println(species + " moves like a reptile");
   abstract void swim();
   public String getSpecies() {
        return species;
    }
abstract class Mammal implements Animal {
   private String species;
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public Mammal(String species) {
        this.species = species;
        System.out.println(species + " is a mammal");
    }
   public void move() {
        System.out.println(species + " moves like a mammal");
   abstract void walk();
   public String getSpecies() {
        return species;
   }
}
class Penguin extends Bird {
   public Penguin() {
        super("Penguin");
   }
   public void eat() {
        System.out.println(getSpecies() + " eats fish");
   public void sleep() {
        System.out.println(getSpecies() + " sleeps standing");
    }
   public void reproduce() {
        System.out.println(getSpecies() + " lays eggs");
   }
   public void communicate() {
        System.out.println(getSpecies() + " makes sounds");
   }
   public void fly() {
        System.out.println(getSpecies() + " cannot fly");
   }
   public void swim() {
        System.out.println(getSpecies() + " swims well");
    }
}
class Sparrow extends Bird {
   public Sparrow() {
        super("Sparrow");
   public void eat() {
        System.out.println(getSpecies() + " eats seeds");
```

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}
    public void sleep() {
        System.out.println(getSpecies() + " sleeps in nest");
   public void reproduce() {
        System.out.println(getSpecies() + " lays eggs");
   public void communicate() {
        System.out.println(getSpecies() + " chirps");
   public void fly() {
        System.out.println(getSpecies() + " flies fast");
    }
}
class Crocodile extends Reptile {
   public Crocodile() {
        super("Crocodile");
    public void eat() {
        System.out.println(getSpecies() + " eats meat");
   public void sleep() {
        System.out.println(getSpecies() + " sleeps with eyes open");
   public void reproduce() {
        System.out.println(getSpecies() + " lays eggs");
   public void communicate() {
        System.out.println(getSpecies() + " growls");
    }
   public void swim() {
        System.out.println(getSpecies() + " swims stealthily");
    }
}
class Human extends Mammal {
   public Human() {
        super("Human");
   public void eat() {
        System.out.println(getSpecies() + " eats varied diet");
    }
```

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public void sleep() {
      System.out.println(getSpecies() + " sleeps lying down");
   }
   public void reproduce() {
      System.out.println(getSpecies() + " gives birth");
   public void communicate() {
      System.out.println(getSpecies() + " speaks languages");
   }
   public void walk() {
      System.out.println(getSpecies() + " walks upright");
   }
}
public class AnimalDemoNew {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      // Display knowledge table
      String[] table = {
              "| Subject | Object | Predicate |",
                 | bird | True
                                  | False
               Penguin | fly
                          | reptile | True
              "| Crocodile | swim | True
              "| eat | Meat |",
                        | mammal | True
               Human | walk | True |", | eat | Varied |",
               | bird | True
               Sparrow | fly | True
              " | eat | Seeds
      };
       for (String line : table)
         System.out.println(line);
      while (true) {
          System.out.print("\nAsk a question (e.g., 'Penguin is bird?') or type 'quit':
");
          String question = sc.nextLine().trim();
          String[] parts = question.split(" ");
          if (parts.length < 3) {</pre>
             return;
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}
            String subject = parts[0].toLowerCase();
            String verb = parts[1].toLowerCase();
            String object = parts[2].toLowerCase().replace("?", "");
            Animal animal = null;
            switch (subject) {
                case "penguin":
                    animal = new Penguin();
                    if ((verb.equals("is") && object.equals("bird")) && animal instanceof
Bird) {
                        System.out.println("Yes, Penguin is a bird.");
                    } else if (verb.equals("can") && object.equals("fly")) {
                        ((Penguin) animal).fly();
                    } else if (verb.equals("can") && object.equals("swim")) {
                        ((Penguin) animal).swim();
                    } else if (verb.equals("eat")) {
                        ((Penguin) animal).eat();
                    } else {
                        System.out.println("I don't know the answer to that.");
                    break;
                case "sparrow":
                    animal = new Sparrow();
                    if ((verb.equals("is") && object.equals("bird")) && animal instanceof
Bird) {
                        System.out.println("Yes, Sparrow is a bird.");
                    } else if (verb.equals("can") && object.equals("fly")) {
                        ((Sparrow) animal).fly();
                    } else if (verb.equals("eat")) {
                        animal.eat();
                    }
                    break;
                case "crocodile":
                    animal = new Crocodile();
                    if ((verb.equals("is") && object.equals("reptile")) && animal
instanceof Reptile) {
                        System.out.println("Yes, Crocodile is a reptile.");
                    } else if (verb.equals("can") && object.equals("swim")) {
                        ((Crocodile) animal).swim();
                    } else if (verb.equals("eat")) {
                        animal.eat();
                    }
                    break;
                case "human":
                    animal = new Human();
                    if ((verb.equals("is") && object.equals("mammal")) && animal
instanceof Mammal) {
                        System.out.println("Yes, Human is a mammal.");
                    } else if (verb.equals("can") && object.equals("walk")) {
```