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 Class:  Rabbits
Author:  Jacob Rust
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*****/
import java.awt.*;


public class rabbit extends Animal implements Prey
{

    private double visualRange = 30.0;


    public rabbit()
    {
        super();
    }


    public rabbit(Cage cage)
    {
        super(cage, Color.blue);
    }


    public rabbit(Cage cage, Color color)
    {
        super(cage, color);
    }


    public rabbit(Cage cage, Color color, Position pos)
    {
        super(cage, color, pos);
    }
```

```
    public void setVisualRange(double range)
    {
        visualRange = range;
    }


    public String toString()
    {
        return (myPos.toString() + " is a  Rabbit.  ");
    }


    {
        //is the rabbit female
        if(getGender()=="female")
        {
            //can it reproduce
            if(getOffspring() == "yes")
            {
                //creates the # of offspring created between 1-4
                Position[] empties = myCage.emptyNeighbors(myPos);
                int numBabies = (int)(Math.random()*4);
                if(numBabies < empties.length)
                {
                    numBabies = empties.length;
                }
                if(empties.length == 0)
                {
                    super.act();
                }
                if(empties.length >0)
                {
                    //adds a rabbit
                    Position newPos= empties[(int)
(Math.random()*empties.length)];
                    rabbit baby = new rabbit(myCage,Color.gray,newPos);
                    myCage.addAnimal(baby);
                }
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            }
            else if(getOffspring() == "no")
            {
                super.act();
            }
        }
        else if(getGender()=="male")
        {
            super.act();
        }



    }



//Rabbit gets a 50/50 chance of being male or female
    public String getGender()
    {
        String Gender = "Gender";
        double number  = Math.random()*4;
        if(number < 3)
        {
            Gender = "male";
        }
        if(number >= 3)
        {
            Gender = "female";
        }
        return Gender;
    }
//determines the chance a rabbit can produce offspring
    public String getOffspring()
    {
        String Offspring = "number";
        double number = Math.random()*100;
        if (number > 7)
        {
            Offspring = "no";
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        }
        if(number<= 7)
        {
            Offspring = "yes";
        }
        return Offspring;

    }


    public boolean canItEatMe(Animal obj)
    {
        if(obj instanceof Predator)
            return true;
        return false;
    }


    public String getSpecies()
    {
        return "Rabbit";
    }

}
```