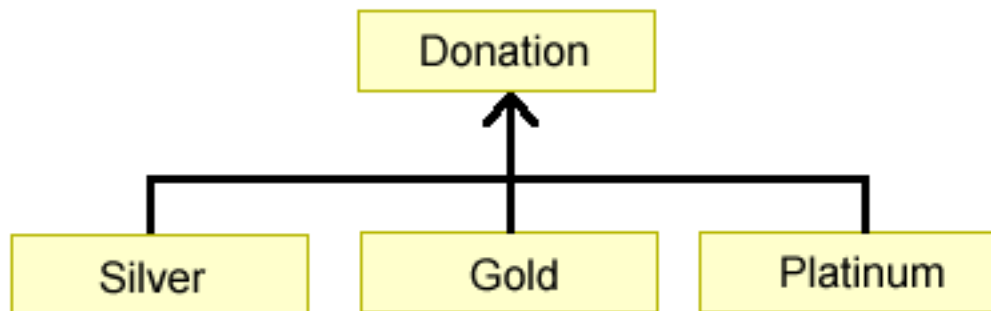## Workspace: Donation

Directions

A set of classes is used to manage the different donations made to a charitable organization. The donors are organized into clubs depending upon the amount of their donation. The class hierarchy is shown in the following diagram.

The class **Donation** is specified as an abstract class as shown in the following declaration.

```java
public abstract class Donation
{
    private String donorName;  // the donor's name

    public Donation(String name)
    {
        donorName = name;
    }

    // returns the name of the club the donor belongs
    public abstract String getClub();

    // returns the amount of the donation
    public abstract double getAmount();

    // returns a string with information about the donation
    public String toString()
    {
        String str;
        str = "Donor Name       = " + donorName + "\n" +
              "Donation Club    = " + getClub() + "\n" +
              "Donation Amount = " + getAmount();
        return str;

    }
}
```

All donations have a donor name. For all donation classes, the toString method returns a string containing the information for that donation. Three additional classes are used to represent the different types of donations and are described in the table below.

Class	Description	Sample toString Output
Silver	These donors made a $100 donation	Donor Name = John Wayne Donation Club = Silver Donation Amount = 100.0
Gold	These donors made a $500 donation	Donor Name = Jimmy Stewart Donation Club = Gold Donation Amount = 500.0
Platnium	These donors made a $1000 donation	Donor Name = Natalie Woods Donation Club = Platinum Donation Amount = 1000.0

Using the class hierarchy and specifications give above, you will write complete class declarations for the Silver, Gold, and Platinum classes.

Modifications

1. ## Silver Class

   Write the complete class declaration for the class Silver. Include all necessary instance variables and implementations of its constructor and method(s). The constructor should take a parameter that indicates the name of the donor. A donor becomes a member of the Silver club if they make a donation of $100.

2. ## Gold Class

   Write the complete class declaration for the class Gold. Include all necessary instance variables and implementations of its constructor and method(s). The constructor should take a parameter that indicates the name of the donor. A donor becomes a member of the Gold club if they make a donation of $500.

3. ## Platinum Class

   Write the complete class declaration for the class Platinum. Include all necessary instance variables and implementations of its constructor and method(s). The constructor should take a parameter that indicates the name of the donor. A donor becomes a member of the Platinum club if they make a donation of $1000.