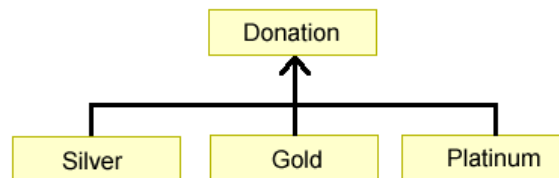


# AP Computer Science: The Donation Abstract Class

## Part A: Donation

- 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.
- 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 <code>toString</code> 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
Platinum	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.
- 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.
- 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.
- 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.
- The output should look like the following:

```
Donor Name      = John Wayne
Donation Club   = Silver
Donation Amount = 100.0
```

Donor Name = Jimmy Stewart  
Donation Club = Gold  
Donation Amount = 500.0

Donor Name = Natalie Woods  
Donation Club = Platinum  
Donation Amount = 1000.0