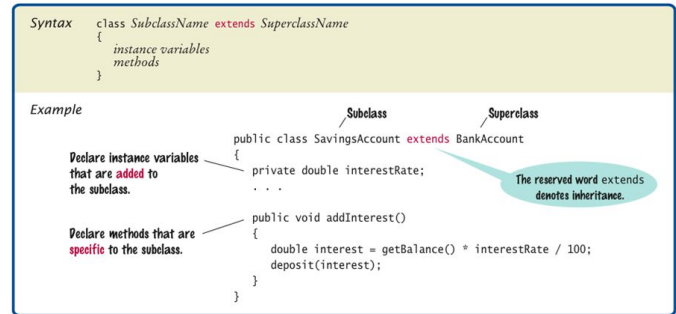


- A subclass inherits data and behavior from a superclass.
- You can always use a subclass object in place of a superclass object.
- A subclass inherits all methods that it does not override.
- A subclass can override a superclass method by providing a new implementation.
- The extends reserved word indicates that a class inherits from a superclass
- An overriding method can extend or replace the functionality of the superclass method.
- Use the reserved word super to call a superclass method.
- Unless specified otherwise, the subclass constructor calls the superclass constructor with no arguments.
- To call a superclass constructor, use the super reserved word in the first statement of the subclass constructor.
- The constructor of a subclass can pass arguments to a superclass constructor, using the reserved word super.
- Override the toString method to yield a string that describes the object's state.
- The equals method checks whether two objects have the same contents.
- If you know that an object belongs to a given class, use a cast to convert the type.
- The instanceof operator tests whether an object belongs to a particular type.

Syntax 9.1 Inheritance



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Example code: `public class ChoiceQuestion`

```
{
...
public void display()
{
// Display the question text

// Display the answer choices

for (int i = 0; i < choices.size(); i++) {

int choiceNumber = i + 1;

System.out.println(choiceNumber + ": " + choices.get(i)); }
```

