

# Classes and Objects in Java



More details: Overloading methods



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# By the end of this video you will be able to...

- Give examples of overloading methods in Java
- Explain how to overload methods in Java
- Explain why overloading methods is useful

```
public class SimpleLocation
{
    public double latitude;
    public double longitude;
```

```
    public SimpleLocation(double lat, double lon)
    {
        this.latitude = lat;
        this.longitude = lon;
    }
    public double distance(SimpleLocation other) {
        ...
    }
}
```

**Must be in file**  
**SimpleLocation.java**



```
public class SimpleLocation
{
```

```
    // Member variables not shown
```

```
    public SimpleLocation()
```

```
    {
```

```
        this.latitude = 32.9;
```

```
        this.longitude = -117.2;
```

```
    }
```

```
    public SimpleLocation(double lat, double lon)
```

```
    {
```

```
        this.latitude = lat;
```

```
        this.longitude = lon;
```

```
    }
```



**Default constructor**

```
public class SimpleLocation  
{
```

```
    // Code omitted here
```

```
    public double distance(SimpleLocation other)
```

```
    {
```

```
        // Body not shown
```

```
    }
```

```
    public double distance(double otherLat,  
                           double otherLon)
```

```
    {
```

```
        // Body not shown
```

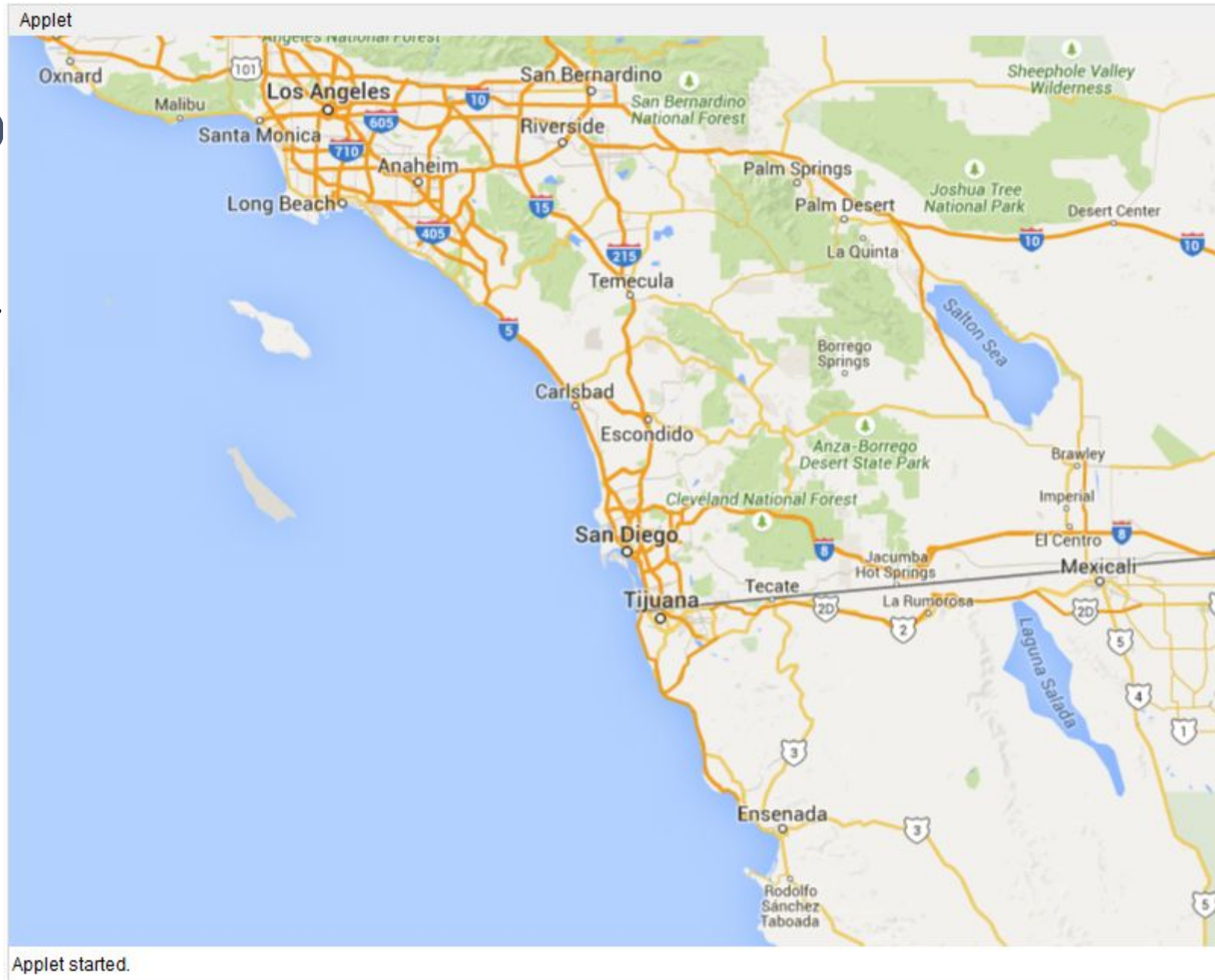
```
    }
```



# Overlo

size(800, 600);  
map = n

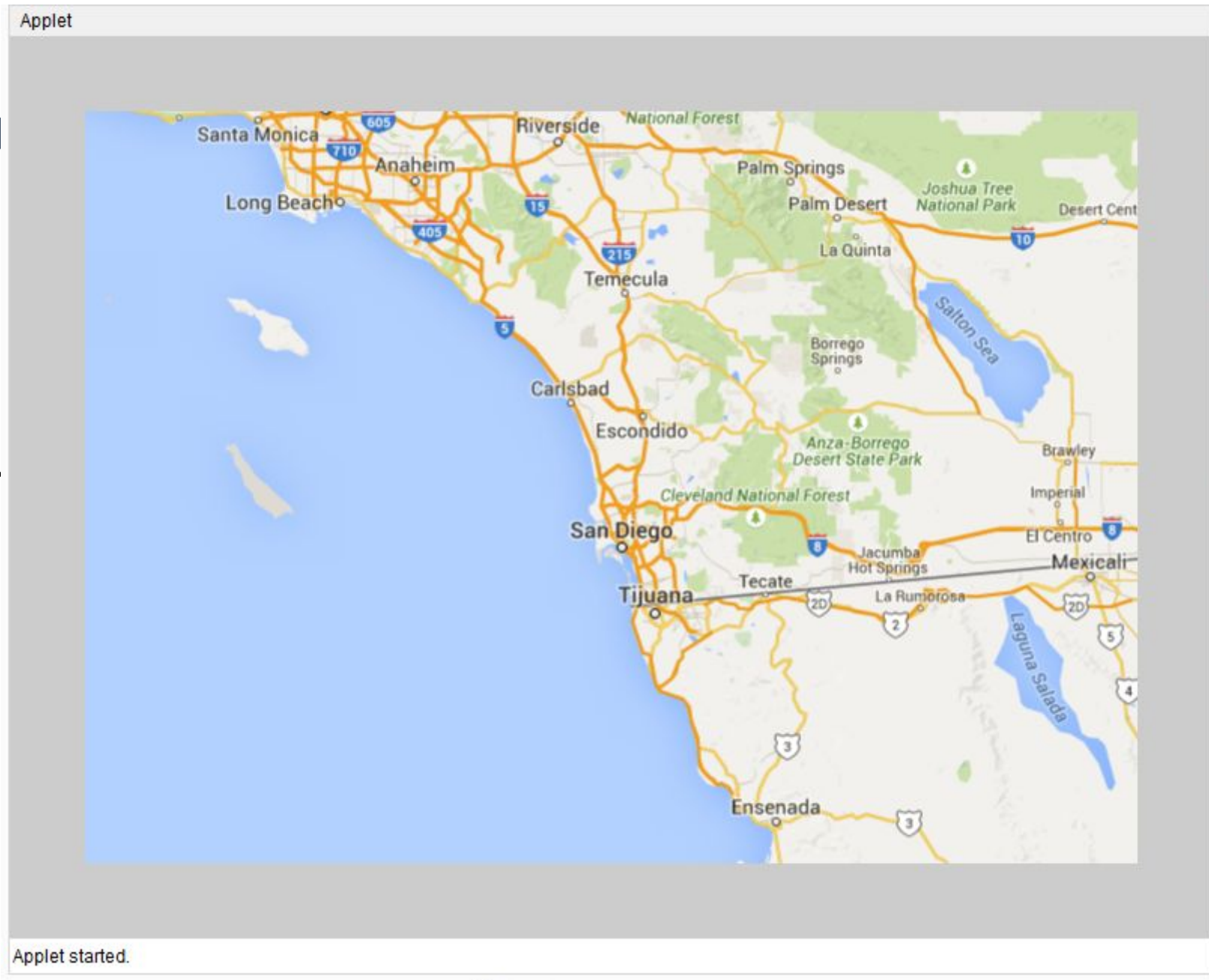
er() );



# Overlo

```
size(800,  
map = new
```

```
size(80  
map = n
```



```
er ( ) ) ;
```

# UnfoldingMap

```
public UnfoldingMap(processing.core.PApplet p,  
                    AbstractMapProvider provider)
```

Creates a new full canvas map with tiles from the given provider.

## Parameters:

p - The main applet.

provider - The map tiles provider to use.

<http://unfoldingmaps.org/javadoc/>



# UnfoldingMap

```
public UnfoldingMap (processing.core.PApplet p,  
                    float x,  
                    float y,  
                    float width,  
                    float height,  
                    AbstractMapProvider provider)
```

Creates a new map with specific position and dimension.

## Parameters:

- p - The main applet.
- x - The x position of this map.
- y - The y position of this map.
- width - The width of this map.
- height - The height of this map.
- provider - The map tiles provider to use.

```
public class SimpleLocation
{
```

```
    // Code omitted here
```

```
    public double distance(SimpleLocation other)
```

```
    {
```

```
        // Body not shown
```

```
    }
```

**Parameters must be  
different**

```
    public int distance(SimpleLocation other)
```

```
    {
```

```
        // Body not shown
```

```
    }
```

