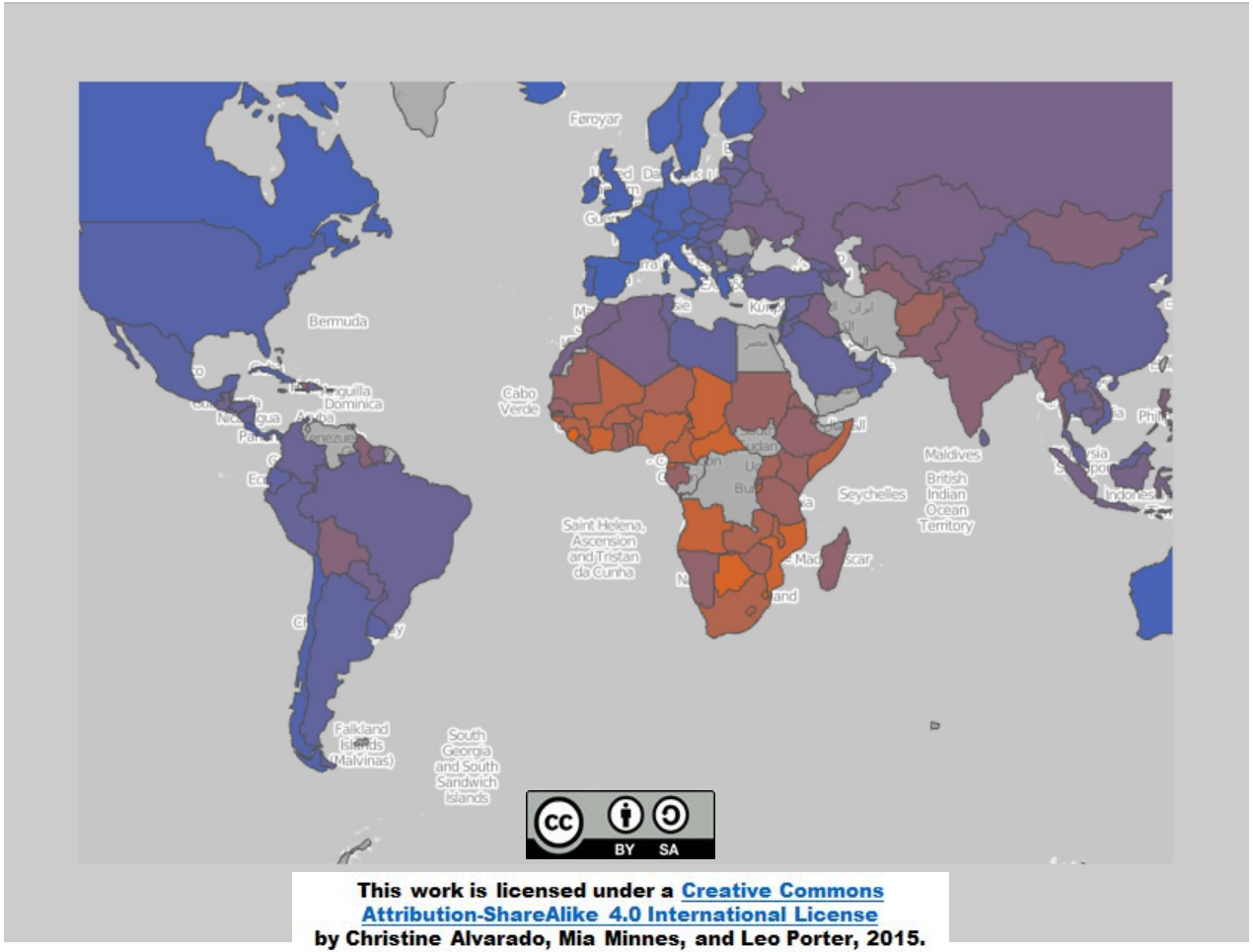


| A | B | C | D | E | F |
|---|---|---|---|---|---|
| Series Name | Series Code | Country Name | Country Code | 2013 [YR2013] | Title |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Afghanistan | AFG | 60.9314146 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Albania | ALB | 77.5372439 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Algeria | DZA | 71.0096585 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | American Samoa | ASM | .. | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Andorra | ADO | .. | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Angola | AGO | 51.8661707 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Antigua and Barbuda | ATG | 75.8292927 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Argentina | ARG | 76.1872927 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Armenia | ARM | 74.5407561 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Aruba | ABW | 75.3321707 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Australia | AUS | 82.197561 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Austria | AUT | 80.8902439 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Azerbaijan | AZE | 70.6931463 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Bahamas, The | BHS | 75.072561 | |
| Life expectancy at birth, total (years) | SP.DYN.LE00.IN | Bahrain | BHR | 76.669878 | |

**LifeExpectancyWorldBank.csv**

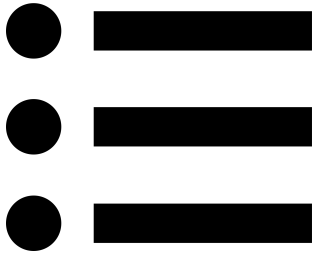
countries.geo.json


```
{"type":"FeatureCollection","features":[
{"type":"Feature","properties":{"name":"Afghanistan"},"geometry":
{"type":"Polygon","coordinates":[[[61.210817,35.650072],[62.230651,35.270664],
[62.984662,35.404041],[63.193538,35.857166],[63.982896,36.007957],[64.546479,36.312073],
[64.746105,37.111818],[65.588948,37.305217],[65.745631,37.661164],[66.217385,37.39379],
[66.518607,37.362784],[67.075782,37.356144],[67.83,37.144994],[68.135562,37.023115],
[68.859446,37.344336],[69.196273,37.151144],[69.518785,37.608997],[70.116578,37.588223],
[70.270574,37.735165],[70.376304,38.138396],[70.806821,38.486282],[71.348131,38.258905],
[71.239404,37.953265],[71.541918,37.905774],[71.448693,37.065645],[71.844638,36.738171],
[72.193041,36.948288],[72.63689,37.047558],[73.260056,37.495257],[73.948696,37.421566],
[74.980002,37.41999],[75.158028,37.133031],[74.575893,37.020841],[74.067552,36.836176],
[72.920025,36.720007],[71.846292,36.509942],[71.262348,36.074388],[71.498768,35.650563],
[71.613076,35.153203],[71.115019,34.733126],[71.156773,34.348911],[70.881803,33.988856],
[69.930543,34.020212],[70.323594,33.358533],[69.687147,33.105499],[69.262522,32.501944],
[69.317764,31.901412],[68.926677,31.620189],[68.556932,31.71331],[67.792689,31.58293],
[67.683394,31.303154],[66.938891,31.304911],[66.381458,30.738899],[66.346473,29.887943],
[65.046862,29.472181],[64.350419,29.560031],[64.148002,29.340819],[63.550261,29.468331],
[62.549857,29.318572],[60.874248,29.829239],[61.781222,30.73585],[61.699314,31.379506],
[60.941945,31.548075],[60.863655,32.18292],[60.536078,32.981269],[60.9637,33.528832],
[60.52843,33.676446],[60.803193,34.404102],[61.210817,35.650072]]]},"id":"AFG"},
{"type":"Feature","properties":{"name":"Angola"},"geometry":
{"type":"MultiPolygon","coordinates":[[[[16.326528,-5.87747],[16.57318,-6.622645],
[16.860191,-7.222298],[17.089996,-7.545689],[17.47297,-8.068551],[18.134222,-7.987678],
[18.464176,-7.847014],[19.016752,-7.988246],[19.166613,-7.738184],[19.417502,-7.155429],
[20.037723,-7.116361],[20.091622,-6.94309],[20.601823,-6.939318],[20.514748,-7.299606],
[21.728111,-7.290872],[21.746456,-7.920085],[21.949131,-8.305901],[21.801801,-8.908707],
[21.875182,-9.523708],[22.208753,-9.894796],[22.155268,-11.084801],[22.402798,-10.993075],
[22.837345,-11.017622],[23.456791,-10.867863],[23.912215,-10.926826],
[24.017894,-11.237298],[23.904154,-11.722282],[24.079905,-12.191297],
[23.930922,-12.565848],[24.016137,-12.911046],[21.933886,-12.898437],
```


**countries.geo.json**

Properties and location

Visual representation



Pro

de.fhpotsdam.unfolding.data

## Class Feature

```
java.lang.Object
  └de.fhpotsdam.unfolding.data.Feature
```

**Direct Known Subclasses:**
MultiFeature, PointFeature, ShapeFeature

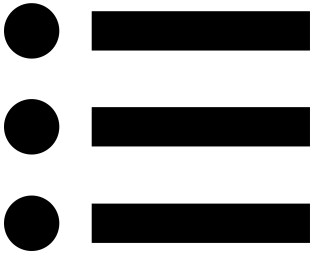
---

```
public class Feature
extends java.lang.Object
```

A feature stores one or more locations, its type, and additional data properties.

---

Visual representation



# Properties and location

Vis

de.fhpotsdam.unfolding.marker

## Interface Marker

**All Known Implementing Classes:**

AbstractMarker, AbstractShapeMarker, MultiMarker, SimpleLinesMarker,

class in de.fhpotsdam.unfolding.marker

```
public interface Marker
```

Marker interface for all markers to be drawn on to maps. A marker has at least one
hit.

# Abstract data type: List

```
List<Feature> countries = new ArrayList();
```

Ordered list of things of type Feature

```
public class LifeExpectancy extends PApplet
{
  UnfoldingMap map;
  Map<String, Float> lifeExpMap;

  List<Feature> countries;
  List<Marker> countryMarkers;
    ...
}
```

```
public class LifeExpectancy extends PApplet
{
  ...
  List<Feature> countries;
  List<Marker> countryMarkers;

  public void setup() {
    ...
    countries = GeoJSONReader.loadData(this,
          "data/countries.geo.json");
    countryMarkers = MapUtils.createSimpleMarkers
(countries);
    ...
}
```

## 1 Feature + 1 Marker per Country

```
public class LifeExpectancy extends PApplet
{
  ...
  public void setup() {
    ...
    lifeExpByCountry = loadLifeExpectancyFromCSV(
          "data/LifeExpectancyWorldBank.csv");

    countries = GeoJSONReader.loadData(this,
          "data/countries.geo.json");
    countryMarkers = MapUtils.createSimpleMarkers
(countries);

    map.addMarkers(countryMarkers);
    shadeCountries();
    ...
}
```

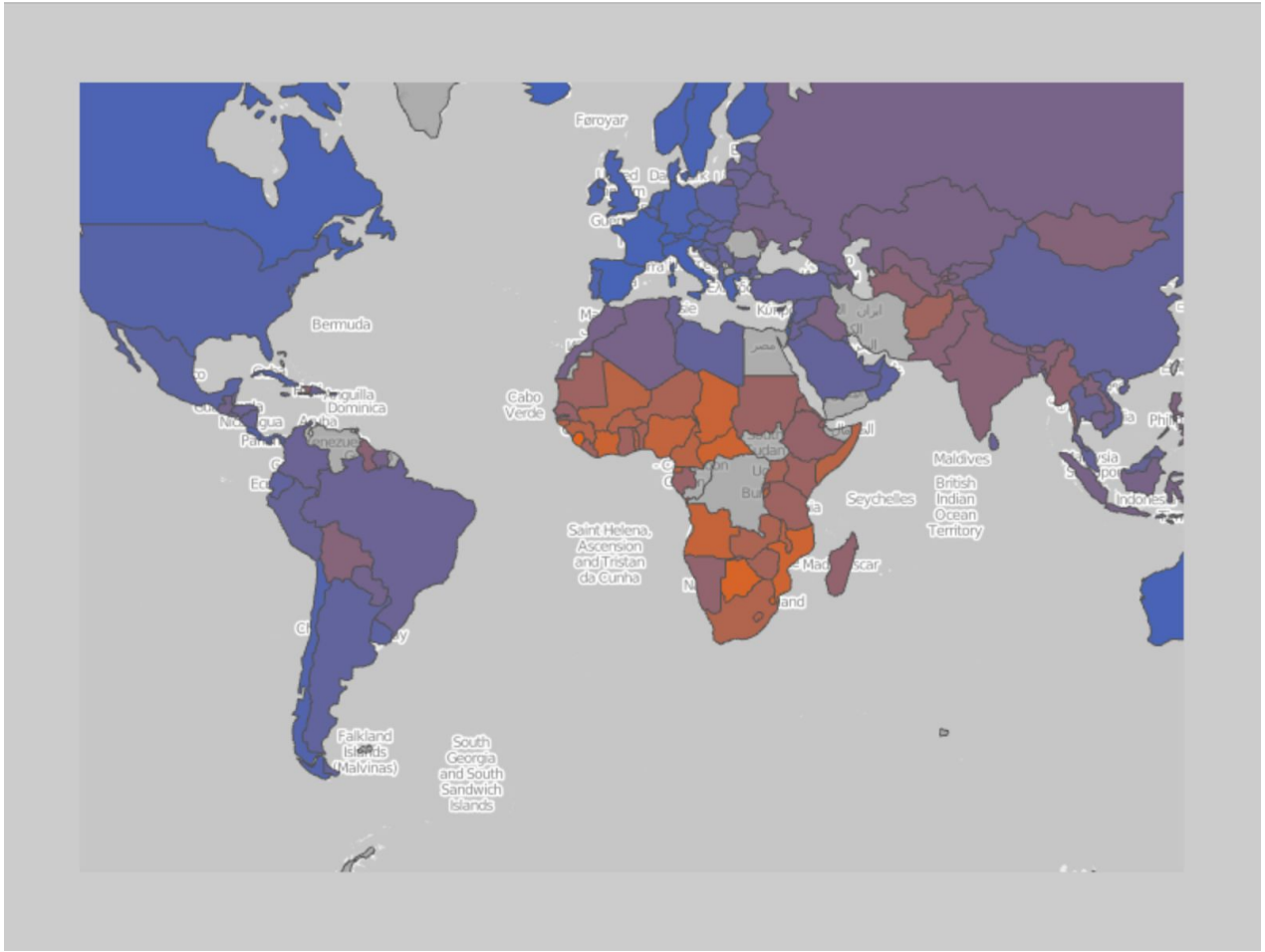
```
private void shadeCountries() {

}
```

```
private void shadeCountries() {

   for (Marker marker : countryMarkers) {
     String countryId = marker.getId();









   }

}
```

```
private void shadeCountries() {

  for (Marker marker : countryMarkers) {
    String countryId = marker.getId();

    if (lifeExpMap.containsKey(countryId)) {
      float lifeExp = lifeExpMap.get(countryId);


    }
    else {

    }
  }

}
```

```
private void shadeCountries() {

  for (Marker marker : countryMarkers) {
    String countryId = marker.getId();

    if (lifeExpMap.containsKey(countryId)) {
      float lifeExp = lifeExpMap.get(countryId);
      int colorLevel = (int) map(lifeExp, 40, 90, 10, 255);

    }
    else {

    }
  }

}
```

```
private void shadeCountries() {

  for (Marker marker : countryMarkers) {
    String countryId = marker.getId();

    if (lifeExpMap.containsKey(countryId)) {
      float lifeExp = lifeExpMap.get(countryId);
      int colorLevel = (int) map(lifeExp, 40, 90, 10, 255);
      marker.setColor(color(255-colorLevel, 100,
colorLevel));
    }
    else {
      marker.setColor(color(150,150,150));
    }
  }

}
```


Faroyar
Bermuda
Gabo Verde
Maldives
British Indian Ocean Territory
Seychelles
Saint Helena, Ascension and Tristan da Cunha
Falkland Islands (Malvinas)
South Georgia and South Sandwich Islands