

```
#choropleth map
```

```
#load ggplot, maps, already installed maps  
#install.packages(c("ggplot2", "maps"))  
library(ggplot2)  
library(maps)
```

```
#sample data  
us_states <- map_data("state")  
unique_states <- unique(us_states$region)  
set.seed(123)  
data <- data.frame(region = unique_states,  
                   value = rnorm(length(unique_states)))
```

```
#choropleth with map & sample data  
choropleth_data <- merge(us_states, data, by = "region", all.x = TRUE)
```

```
#map info  
#add +  
ggplot(data = choropleth_data, aes(x = long, y = lat, group = group, fill = value)) +  
  geom_polygon(color = "white") +  
  coord_fixed(1.3) +  
  scale_fill_gradient(low = "pink", high = "maroon") +  
  labs(title = "choropleth map of US states",  
       fill = "value")
```