Lab 2: Data Visulization

2025/06/27

Today's agenda: data visualization with ggplot2. Get help on dataset ChickWeight by `?ChickWeight`. Play with the following R code to figure out what we are doing here.
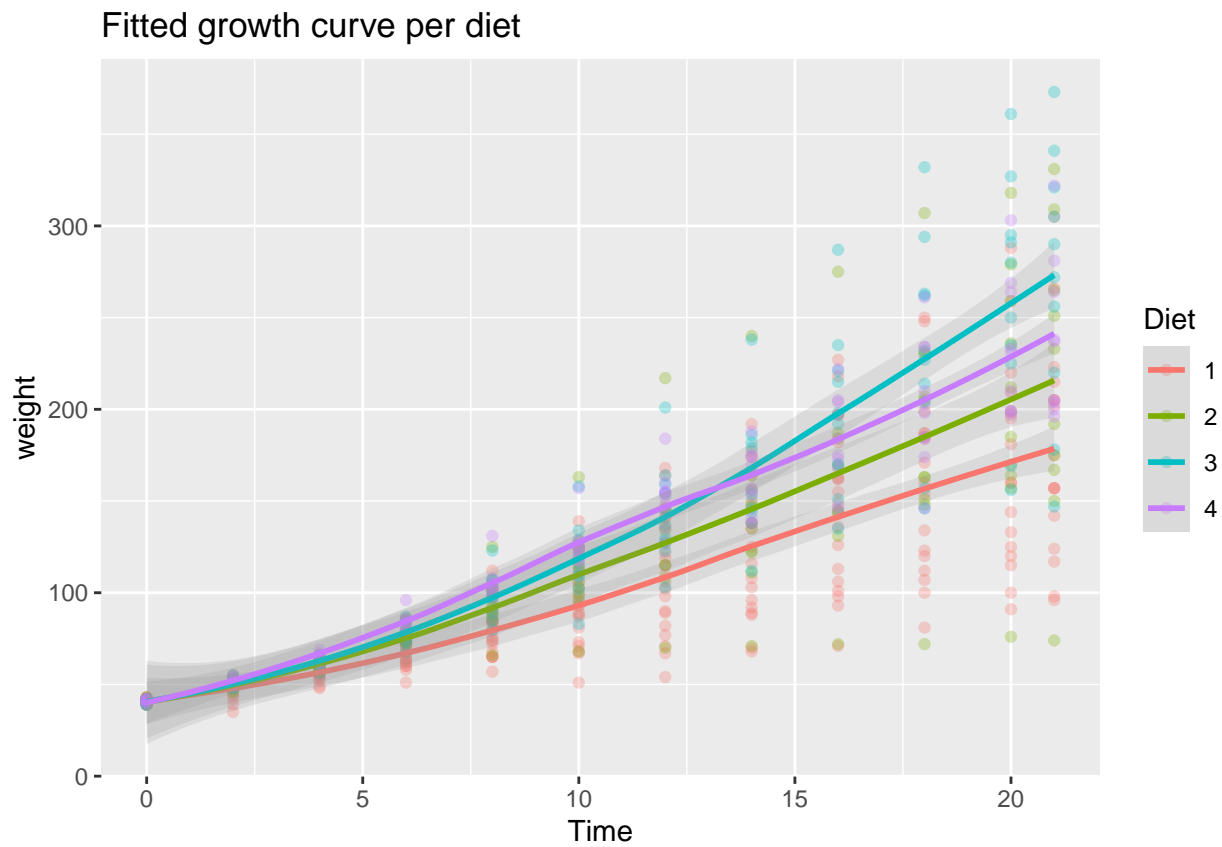
First plot

```r
p1 <- ggplot(ChickWeight, aes(x=Time, y=weight, colour=Diet)) +
    geom_point(alpha=.3) +
    geom_smooth(alpha=.2, size=1) +
    ggtitle("Fitted growth curve per diet")
```

```
## Warning: Using 'size' aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use 'linewidth' instead.
## This warning is displayed once every 8 hours.
## Call 'lifecycle::last_lifecycle_warnings()' to see where this warning was
## generated.
```
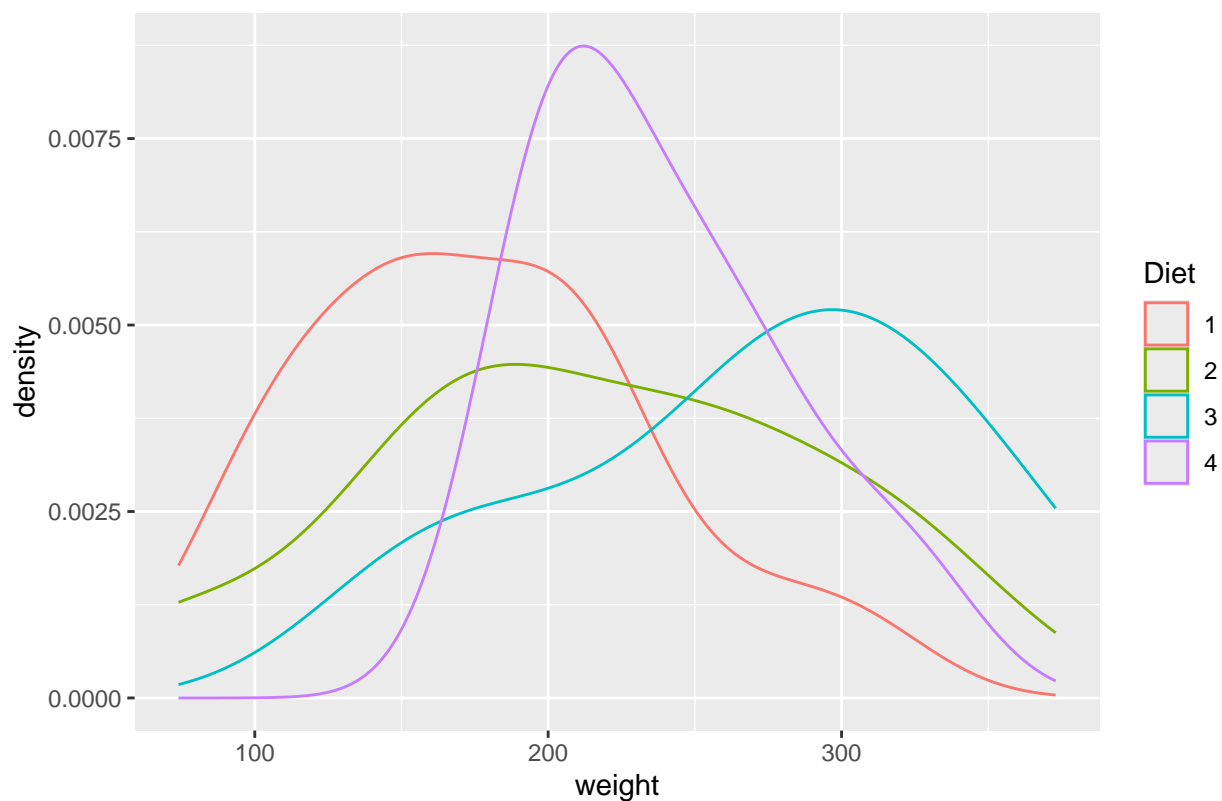
```r
p1
```

```
## 'geom_smooth()' using method = 'loess' and formula = 'y ~ x'
```

Fitted growth curve per diet

Second plot

```r
p2 <- ggplot(subset(ChickWeight, Time==21), aes(x=weight, colour=Diet)) +
    geom_density() +
    ggtitle("Final weight, by diet")
p2
```

Final weight, by diet

Third plot

```
p3 <- ggplot(subset(ChickWeight, Time==21), aes(x=weight, fill=Diet)) +
    geom_histogram(colour="black", binwidth=50) +
    facet_grid(Diet ~ .) +
    ggtitle("Final weight, by diet") +
    theme(legend.position="none")         # No legend (redundant in this graph)
p3
```

Final weight, by diet