group_by() operates on groups of rows

```
summarise(by_day, delay = mean(dep_delay, na.rm = TRUE))
#> # A tibble: 365 x 4
#> # Groups:   year, month [12]
#>    year month   day delay
#>   <int> <int> <int> <dbl>
#> 1  2013     1     1 11.5
#> 2  2013     1     2 13.9
#> 3  2013     1     3 11.0
#> 4  2013     1     4  8.95
#> 5  2013     1     5  5.73
#> 6  2013     1     6  7.15
#> # … with 359 more rows
```

```
by_day <- group_by(flights, year, month, day)
```

group_by( ) operates on groups of rows

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#> # … with 359 more rows
```

Pipes make dplyr code more elegant

```
by_dest <- group_by(flights, dest)
delay <- summarise(by_dest,
  count = n(),
  dist = mean(distance, na.rm = TRUE),
  delay = mean(arr_delay, na.rm = TRUE)
)
delay <- filter(delay, count > 20, dest != "HNL")

# It looks like delays increase with distance up to ~750 miles
# and then decrease. Maybe as flights get longer there's more
# ability to make up delays in the air?
ggplot(data = delay, mapping = aes(x = dist, y = delay)) +
  geom_point(aes(size = count), alpha = 1/3) +
  geom_smooth(se = FALSE)
#> `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```