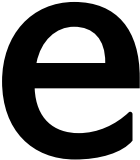
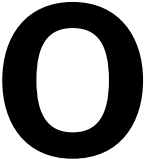


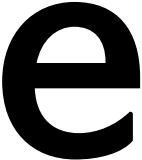
B







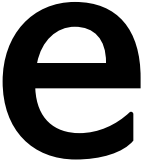




A







RStudio

Go to file/function Addins Project: (None)

Untitled1* x Untitled2* x

Source on Save Run Source

```
1 mtcars %>%
2   filter(cyl != 4) %>%
3   group_by(vs, am) %>%
4   summarise(n = n(), avg_mpg = mean(mpg), avg_hp = mean(hp))
5
```

5:1 (Top Level) R Script

Console Terminal x Jobs x

~/

```
> mtcars %>%
+   filter(cyl != 4) %>%
+   group_by(vs, am) %>%
+   summarise(n = n(), avg_mpg = mean(mpg), avg_hp = mean(hp))
# A tibble: 3 x 5
# Groups:   vs [2]
   vs    am     n avg_mpg avg_hp
  <dbl> <dbl> <int>   <dbl>   <dbl>
1     0     0    12    15.0    194.
2     0     1     5    18.5    199.
3     1     0     4    19.1    115.
> |
```

RStudio

Go to file/function | Addins | Project: (None)

Untitled1* x | Untitled2* x

Source on Save | Run | Source

```
1 library(sqldf)
2
3 sqldf("
4     SELECT    vs, am, count(*) AS n, avg(mpg) AS avg_mpg, avg(hp) AS avg_hp
5     FROM      mtcars
6     WHERE     cyl <> '4'
7     GROUP BY  vs, am
8 ")
```

1:15 (Top Level) R Script

Console | Terminal x | Jobs x

~/

```
>
> sqldf("
+ SELECT    vs, am, count(*) AS n, avg(mpg) AS avg_mpg, avg(hp) AS avg_hp
+ FROM      mtcars
+ WHERE     cyl <> '4'
+ GROUP BY  vs, am
+ ")
  vs am  n avg_mpg  avg_hp
1  0  0 12  15.050 194.1667
2  0  1  5  18.500 198.8000
3  1  0  4  19.125 115.2500
>
```

After

RStudio

Go to file/function | Addins | Project: (None)

Untitled1* x | Untitled2* x

Source on Save | Run | Source

```
1 library(sqldf)
2
3 sqldf("
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5   FROM      mtcars
6   WHERE     cyl <> '4'
7   GROUP BY  vs, am
8   ")
```

1:15 (Top Level) | R Script

Console | Terminal x | Jobs x

```
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+   GROUP BY  vs, am
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```

RStudio

Go to file/function | Addins | Project: (None)

Untitled1* x | Untitled2* x

Source on Save | Run | Source

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```

5:1 (Top Level) | R Script

Console | Terminal x | Jobs x

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# A tibble: 3 x 5
# Groups:   vs [2]
   vs    am     n avg_mpg avg_hp
  <dbl> <dbl> <int>   <dbl>   <dbl>
1     0     0    12    15.0    194.
2     0     1     5    18.5    199.
3     1     0     4    19.1    115.
> |
```