Naming objects

Let's revisit our dplyr session:

The mean number of beds available by date:

```
beds_data %>%
  group_by(date) %>%
  summarise(
    mean_beds = mean(beds_av, na.rm = T))
```

Output = Object = New data frame!

Next step: Visualise

Piecing it together

```
beds_data %>%
  group_by(date) %>%
  summarise(
    mean_beds = mean(beds_av, na.rm = T))
```

Output = Object = New data frame!

```
  ggplot(data =          )
```

Now, we could do this:

```
ggplot(data = beds_data %>%
          group_by(date) %>%
          summarise(
          mean_beds = mean(beds_av, na.rm = T))
       )+
geom_...
```

But, it’s often better to:

Keep wrangling separate

And it's <u>always</u> better to:

Keep your code readable

as

as possible

Solution:

```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

name

Replace this:

```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

With this:

name

Naming

```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

naming is hard

Naming

```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

Murray

Naming

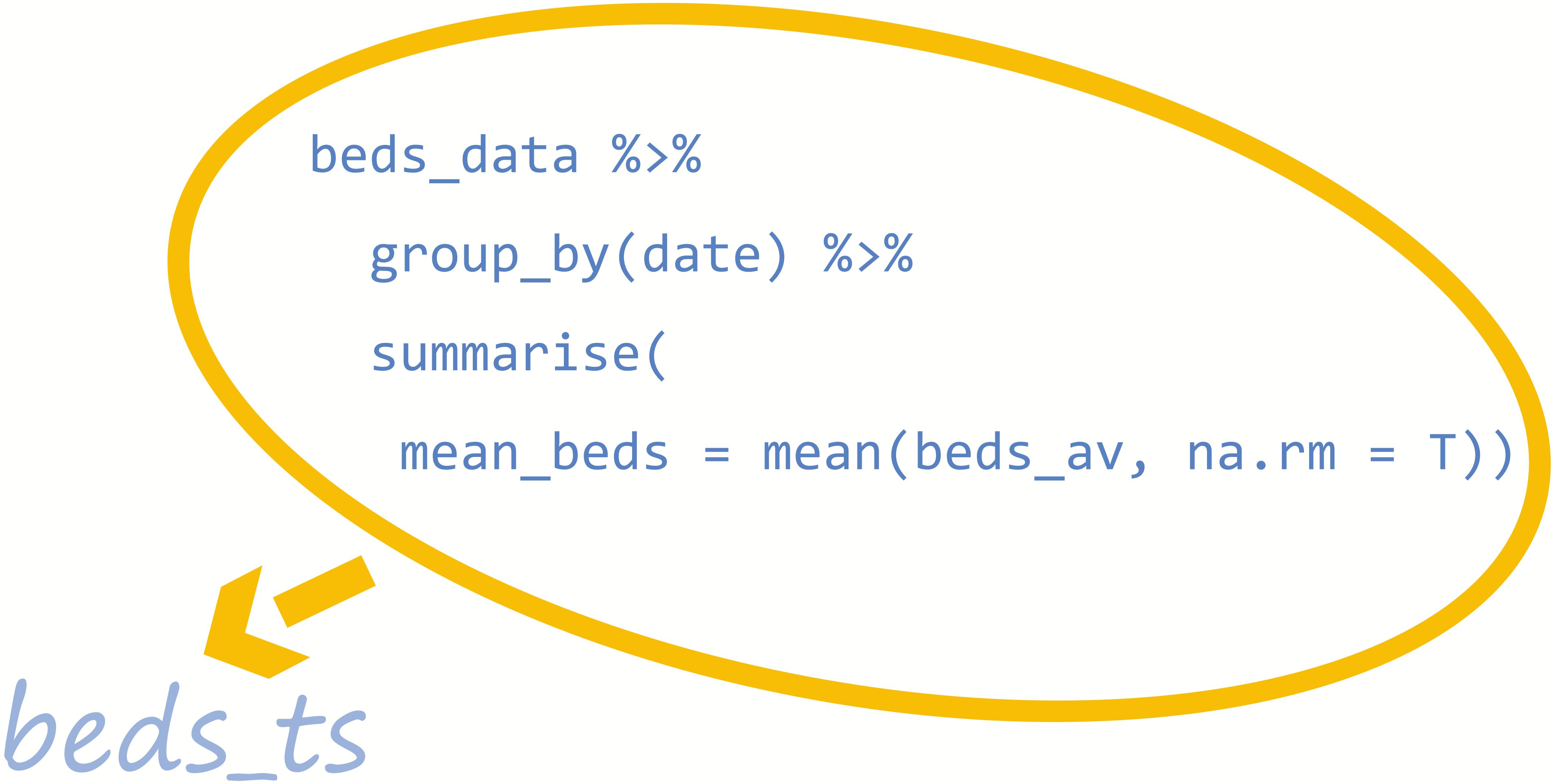
```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

~~Murray~~

Good (object) names are:

1. Descriptive
2. Short(ish)
3. Consistent with other names

Naming?



```
beds_data %>%
  group_by(date) %>%
  summarise(
   mean_beds = mean(beds_av, na.rm = T))
```

beds_ts

Assignment

Name objects with the assignment operator:

assignment operator

```
beds_ts  <- beds_data %>%
               group_by(date) %>%
               summarise(
            mean_beds = mean(beds_av, na.rm = T))
```

Assignment operator

<-

Shortcut: Alt -

Assignment

Assigns this name…

```
beds_ts  <- beds_data %>%
               group_by(date) %>%
               summarise(
            mean_beds = mean(beds_av, na.rm = T))
```

Assignment

Assigns this name…

To the object produced by this code

```
beds_ts  <- beds_data %>%
               group_by(date) %>%
               summarise(
            mean_beds = mean(beds_av, na.rm = T))
```

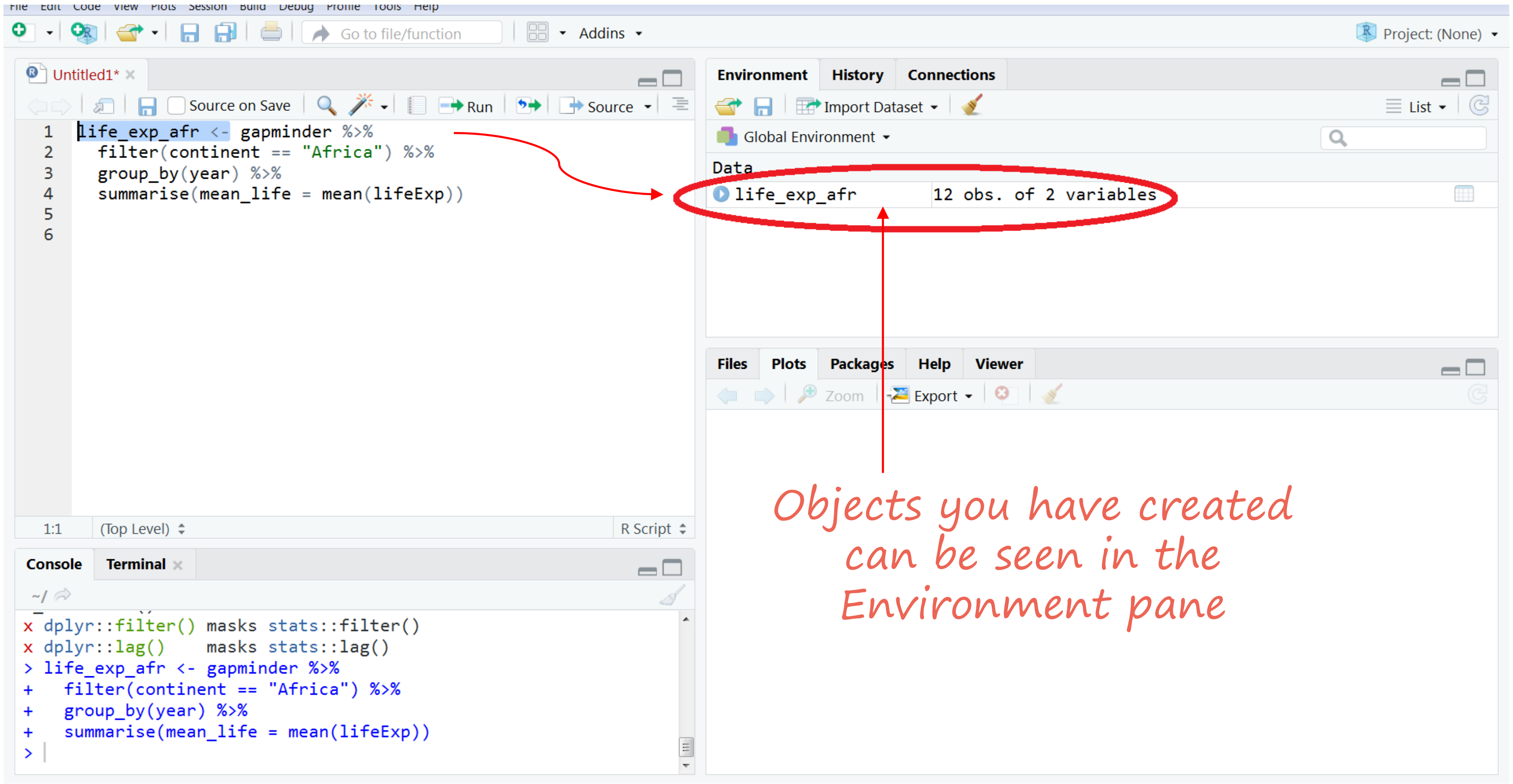
Assignment

```
beds_ts  <- beds_data %>%
               group_by(date) %>%
               summarise(
            mean_beds = mean(beds_av, na.rm = T))
```

```
beds_ts
```

→ running **beds_ts** recalls data
frame above

Objects



```
life_exp_afr <- gapminder %>%
  filter(continent == "Africa") %>%
  group_by(year) %>%
  summarise(mean_life = mean(lifeExp))
```

```
Data
life_exp_afr        12 obs. of 2 variables
```

```
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
> life_exp_afr <- gapminder %>%
+   filter(continent == "Africa") %>%
+   group_by(year) %>%
+   summarise(mean_life = mean(lifeExp))
> 
```

Objects you have created can be seen in the Environment pane

Returning to the plot:

```
ggplot(data = beds_data %>%
          group_by(date) %>%
          summarise(
          mean_beds = mean(beds_av, na.rm = T)))+
    geom_...(aes(x = …, y = …))
```

Becomes:

```
ggplot(data = beds_ts)+
  geom_...(aes(x = …, y = …))
```

Or:

```
ggplot(beds_ts)+
  geom_...(aes(…, …))
```

Your turn (1)

If you haven’t already, follow the steps we’ve just covered to create the object **`beds_ts`**.

Your turn (2)

Plot the trend in mean available beds. You may require `ggplot()` plus `+` the following layers:

`geom_line()`

`ylim()`

`geom_point()`

To get help with this (or any) function type

`?ylim`

Your turn (3)

Give your plot object a name.

To summarise

Give an object (data frame, plot, value) a name when you may need that object later in your analysis.

End