

# Lab 9: APIs

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## Lab report

### Exercises

```
library(tidycensus)
va_pop_2010 <- get_decennial(
  geography = "county",
  state = "VA",
  variables = c("P001001"),
  year = 2010,
  show_call = TRUE,
  geometry = TRUE
)
```

#### Exercise 1

```
## Getting data from the 2010 decennial Census
```

```
## Warning: * You have not set a Census API key. Users without a key are limited to 500
## queries per day and may experience performance limitations.
```

```
## i For best results, get a Census API key at
```

```
## http://api.census.gov/data/key_signup.html and then supply the key to the
## 'census_api_key()' function to use it throughout your tidycensus session.
```

```
## This warning is displayed once per session.
```

```
## Census API call: https://api.census.gov/data/2010/dec/sf1?get=P001001%2CNAME&for=county%3A%
```

```
## Using Census Summary File 1
```

```
Exercise 2 library(dplyr) library(ggplot2)
```

```
va_pop_2010 %>% ggplot(aes(fill = value)) + geom_sf() + scale_fill_viridis_c(option =
"magma")
```

**Exercise 3**

**Exercise 4**

**Exercise 5**

**Exercise 6**

**Exercise 7**