

# lab-07-simpsons.Rmd

Reem saleh almutairi

20 March 2021

## Packages

```
library(tidyverse)
library(mosaicData)
```

## Exercises

1.

```
view(Whickham)
```

Your answer: observational , Because they notice a person's health status after a period of time. 2.

```
nrow(Whickham)
```

```
## [1] 1314
```

Your answer; 1314 represent recorded participants' age, smoking status at baesline.

3.

```
ncol(Whickham)
```

```
## [1] 3
```

Your answer:

```
class(Whickham$age)
```

```
## [1] "integer"
```

```
class(Whickham$smoker)
```

```
## [1] "factor"
```

```
class(Whickham$outcome)
```

```
## [1] "factor"
```

Your answer: 3,age (Numerical),smoker and outcome are categorical age( integer ),smoker and outcome are ( factor)

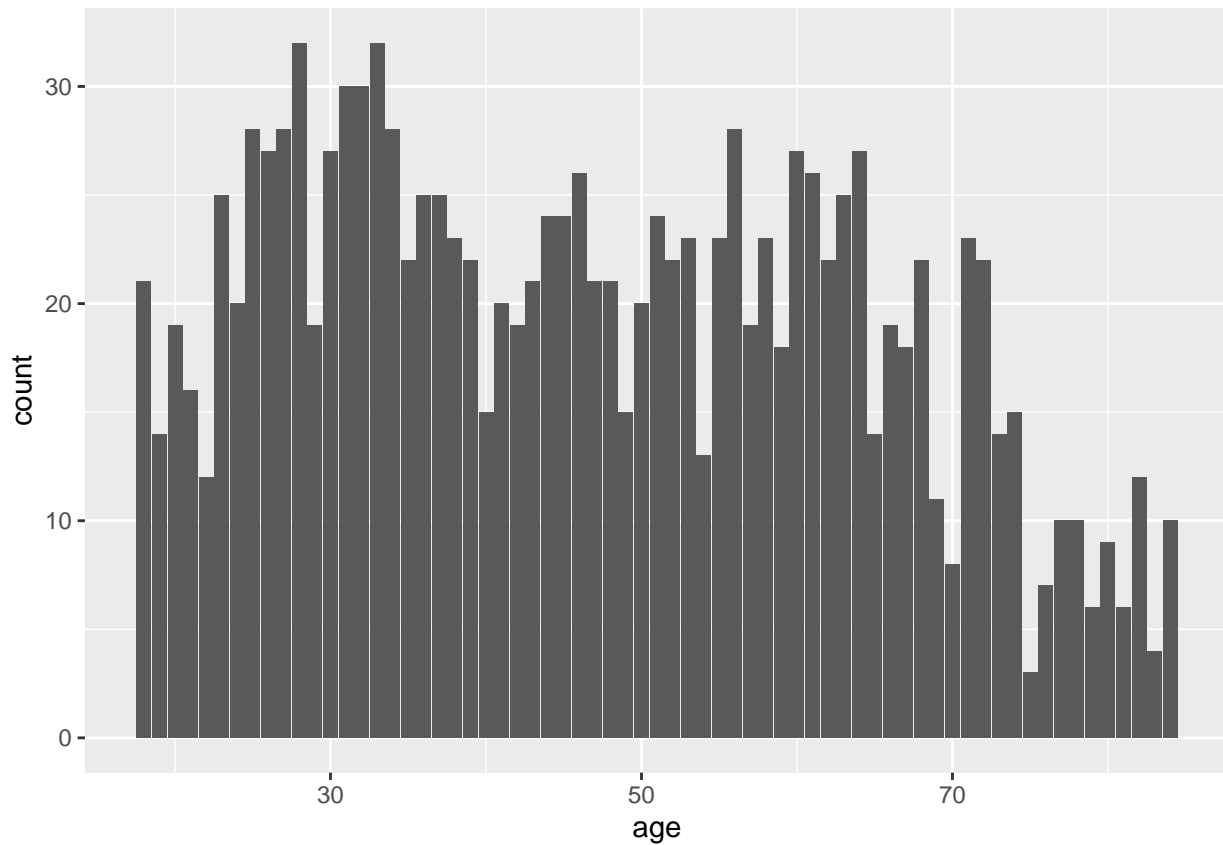
```
ggplot(Whickham, aes(x = outcome)) +
  geom_bar()
```



```
ggplot(Whickham, aes(x = smoker )) +  
  geom_bar()
```

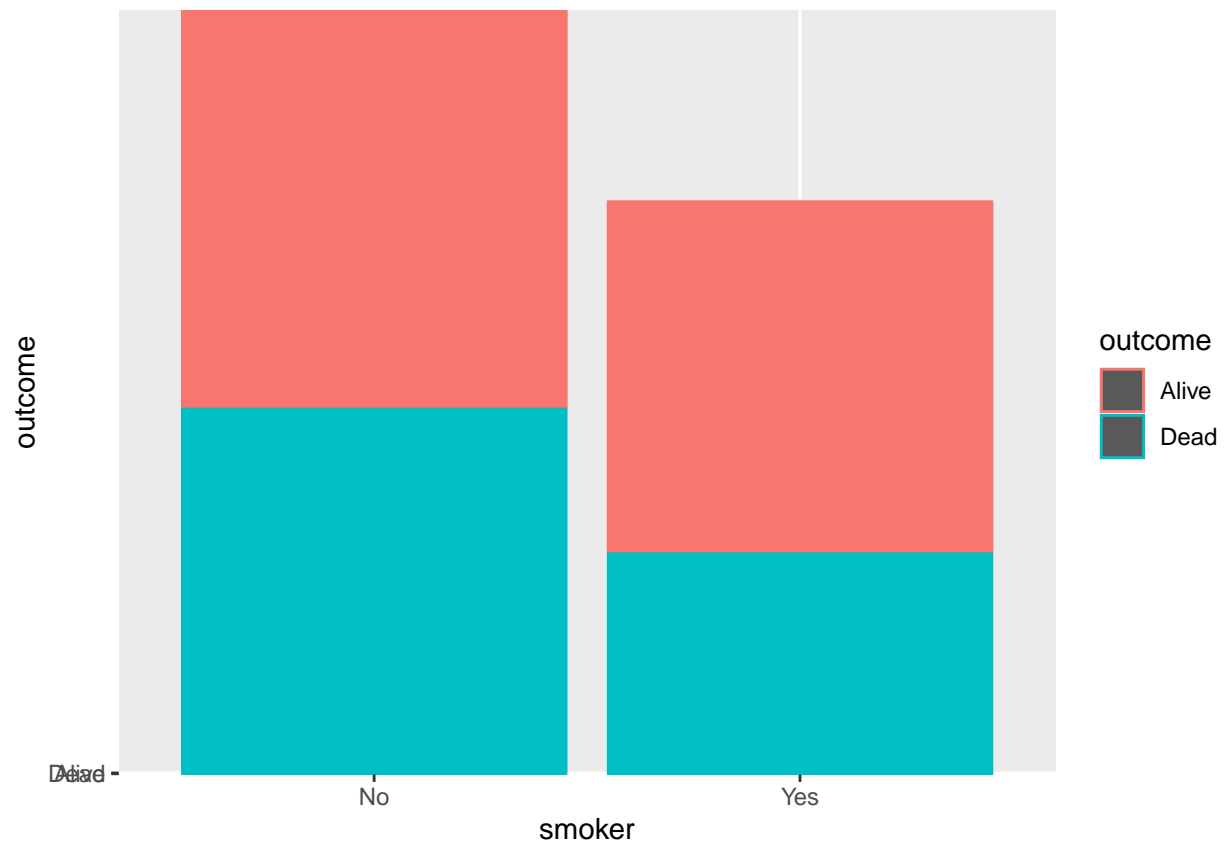


```
ggplot(Whickham, aes(x = age)) +  
  geom_bar()
```



4. I expect the health will be worser and may be the person will be died after while ,if he keeping somke.

```
ggplot(data=Whickham, aes(x=smoker, y=outcome, color=outcome)) + geom_bar(stat="identity")
```



Knit, commit, and push to github.

5.

```
Whickham %>%
  count(smoker, outcome)
```

```
##   smoker outcome    n
## 1    No    Alive 502
## 2    No    Dead 230
## 3   Yes    Alive 443
## 4   Yes    Dead 139
```

6.

7.

Knit, commit, and push to github.