Assignment 4

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```
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------------- tidyverse 1.2.1 --
```

```
## v ggplot2 3.1.0     v purrr   0.2.5
## v tibble  2.0.1     v dplyr   0.7.8
## v tidyr   0.8.2     v stringr 1.3.1
## v readr   1.3.1     v forcats 0.3.0
```

```
## -- Conflicts ------------------------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(dplyr)
library(magrittr)
```

```
##
## Attaching package: 'magrittr'
```

```
## The following object is masked from 'package:purrr':
##
##     set_names
```

```
## The following object is masked from 'package:tidyr':
##
##     extract
```

Create Test Data

Fish Caught

```
### create vector of possible fish
possible.fish = c("parrotfish","unicornfish","bonito","yellowfin","swordfish")

###Fish Catch Data (I used long format data frame)###

### number of fish caught on northside
catch_north <- sample(possible.fish, size=20, replace=T) %>%
  as_tibble %>%
  group_by(value) %>%
  count() %>%
  magrittr::set_colnames(value = c("fish", "north"))
```

```
## Warning: Calling `as_tibble()` on a vector is discouraged, because the behavior is likely to change i
## This warning is displayed once per session.
```

```
### number of fish caught on eastside
catch_east <- sample(possible.fish, size=20, replace=T) %>%
  as_tibble %>%
```

```
  group_by(value) %>%
  count() %>%
  magrittr::set_colnames(value = c("fish", "east"))

### number of fish caught on westside
catch_west <- sample(possible.fish, size=20, replace=T) %>%
  as_tibble %>%
  group_by(value) %>%
  count() %>%
  magrittr::set_colnames(value = c("fish", "west"))

### combine all together

catch_all_1 <- left_join(catch_north, catch_east, by= "fish")
catch_location_data <- left_join(catch_all_1, catch_west, by= "fish") %>%
  as.tibble()
```

```
## Warning: `as.tibble()` is deprecated, use `as_tibble()` (but mind the new semantics).
## This warning is displayed once per session.
```

```
as.numeric(catch_location_data$north)
```

```
## [1] 5 3 7 1 4
```

```
#some runs have NAs instead of zeros from the sample of possible fish. This is in case that happens
catch_location_data[is.na(catch_location_data)] <- 0
```

Price Data

```
### In Polyneisan Francs
price_data <- c("4000","15000", "20000", "25000", "20000") %>%
  as.tibble %>%
  mutate(fish = c("parrotfish", "unicornfish", "bonito", "yellowfin","swordfish")) %>%
  magrittr::set_colnames(value = c("price", "fish")) %>%
  mutate(price = parse_double(price, na = "0"))
```

Run Function

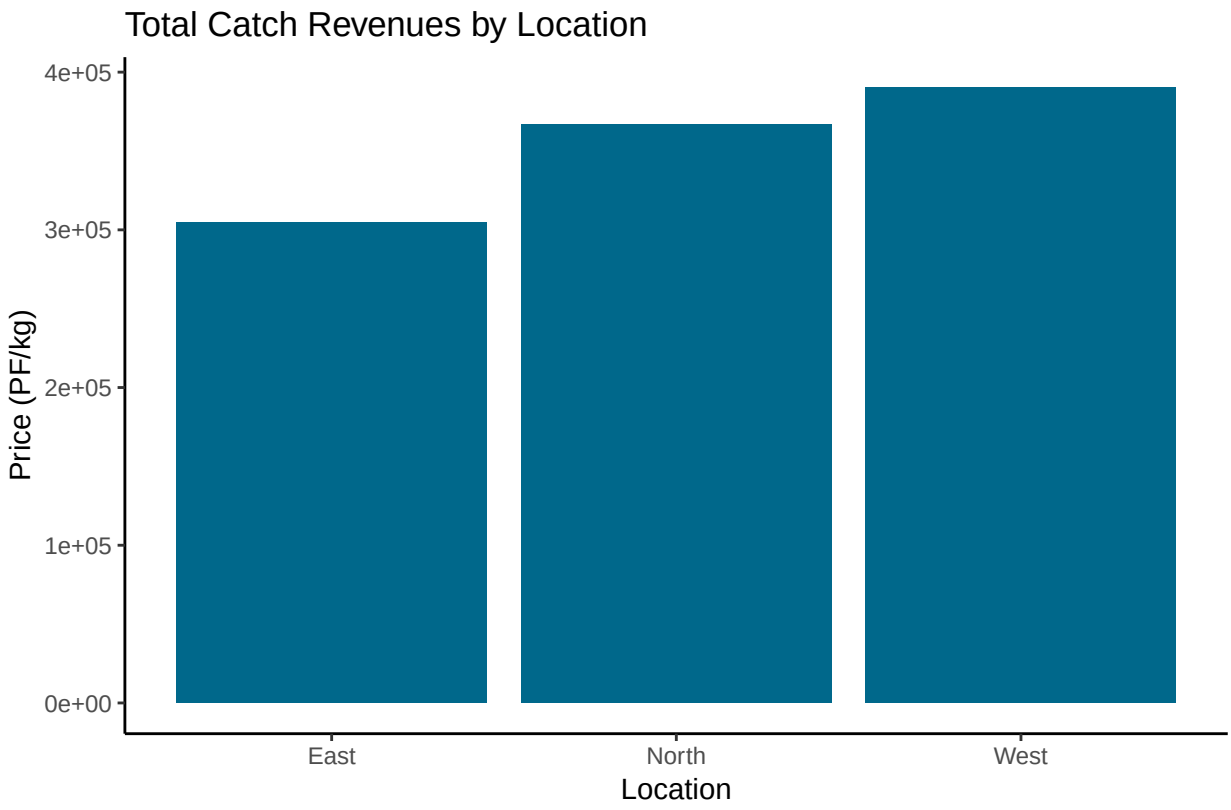
```
source("R/calc_fisheries_data.R")

summary <- fish_summary(catch_location_data = catch_location_data, price_data = price_data, graph = TRU
```

```
## Warning: `data_frame()` is deprecated, use `tibble()`.
## This warning is displayed once per session.
```

```
summary
```

```
## [[1]]
## # A tibble: 1 x 3
##   freq_north freq_west   freq_east
##   <chr>      <chr>       <chr>
## 1 swordfish  unicornfish bonito
##
## [[2]]
## # A tibble: 1 x 3
```

```
##   rev_north rev_west rev_east
##       <dbl>    <dbl>    <dbl>
## 1    367000   390000   305000
##
## [[3]]
## # A tibble: 5 x 2
##   Fishery     `Total Revenue`
##   <chr>                 <dbl>
## 1 bonito               320000
## 2 parrotfish            32000
## 3 swordfish            320000
## 4 unicornfish          165000
## 5 yellowfin            225000
##
## [[4]]
## [1] 1062000
##
## [[5]]
```



Total Revenue: PF 1062000