Final Report

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Load Packages

```
library(tidyverse)
```

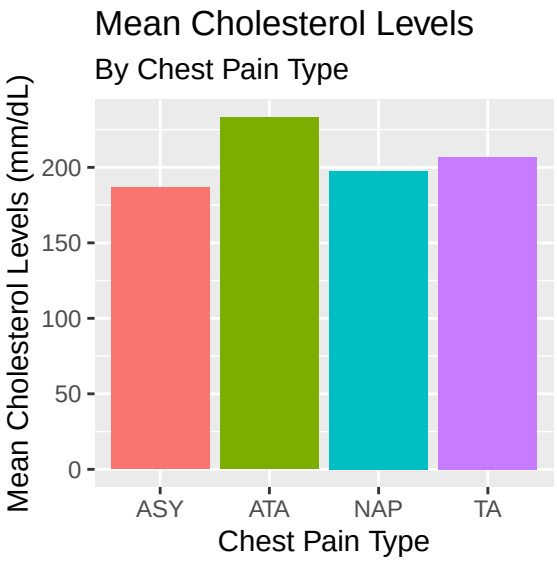
Load Data

```
heart <- readr::read_csv("heart.csv")
```

```
mean_cholesterol <- heart %>%
  group_by(ChestPainType) %>%
  summarize(mean_cholesterol = mean(Cholesterol))%>%
  print()
```

```
## # A tibble: 4 x 2
##   ChestPainType mean_cholesterol
##   <chr>                    <dbl>
## 1 ASY                       187.
## 2 ATA                       233.
## 3 NAP                       197.
## 4 TA                        207.
```

```
mean_cholesterol %>%
  ggplot()+
  geom_col(mapping = aes(x = ChestPainType, y = mean_cholesterol,  fill = ChestPainType), position = "d
    theme(legend.position = "none")+
    labs(title = "Mean Cholesterol Levels",
         subtitle = "By Chest Pain Type",
         x = "Chest Pain Type",
         y = "Mean Cholesterol Levels (mm/dL)")
```




```
heart_grouped <- heart %>%
  mutate(chol_level = cut(Cholesterol,
                          breaks = c(-Inf, 120, 200, 239, Inf),
                          labels = c("Low", "Normal", "Intermediate", "High"),
                          right=FALSE))
```

```
heart_grouped <- heart_grouped %>%
  mutate(press_level = cut(RestingBP,
                          breaks = c(-Inf, 120, 130, 140, 180, Inf),
                          labels = c("Normal", "Elevated", "Hypertension 1", "Hypertension 2", "Hyperte
                          right=FALSE))
```

```
heart_grouped <- heart_grouped %>%
  mutate(Sex, sex_factor=ifelse(Sex=="M", 0,1)) %>%
  mutate(ExerciseAngina, exer_factor=ifelse(ExerciseAngina=="N", 0,1))
```

```
chol_grouped <- heart_grouped %>%
  group_by(ChestPainType, chol_level)%>%
  summarize(count = n())
```

```
## `summarise()` has grouped output by 'ChestPainType'. You can override using the `.groups` argument.
```

```
RBP_grouped <- heart_grouped %>%
  group_by(ChestPainType, press_level) %>%
  summarize(count = n())
```

```
## `summarise()` has grouped output by 'ChestPainType'. You can override using the `.groups` argument.
```

```
exer_grouped <- heart_grouped %>%
  group_by(ChestPainType, exer_factor) %>%
  summarize(count = n())
```

```
## `summarise()` has grouped output by 'ChestPainType'. You can override using the `.groups` argument.
```

```
sex_grouped <- heart_grouped %>%
  group_by(ChestPainType, sex_factor) %>%
  summarize(count = n())
```

```
## `summarise()` has grouped output by 'ChestPainType'. You can override using the `.groups` argument.
```