assignment_04_exercise_01_PothineniKalyan

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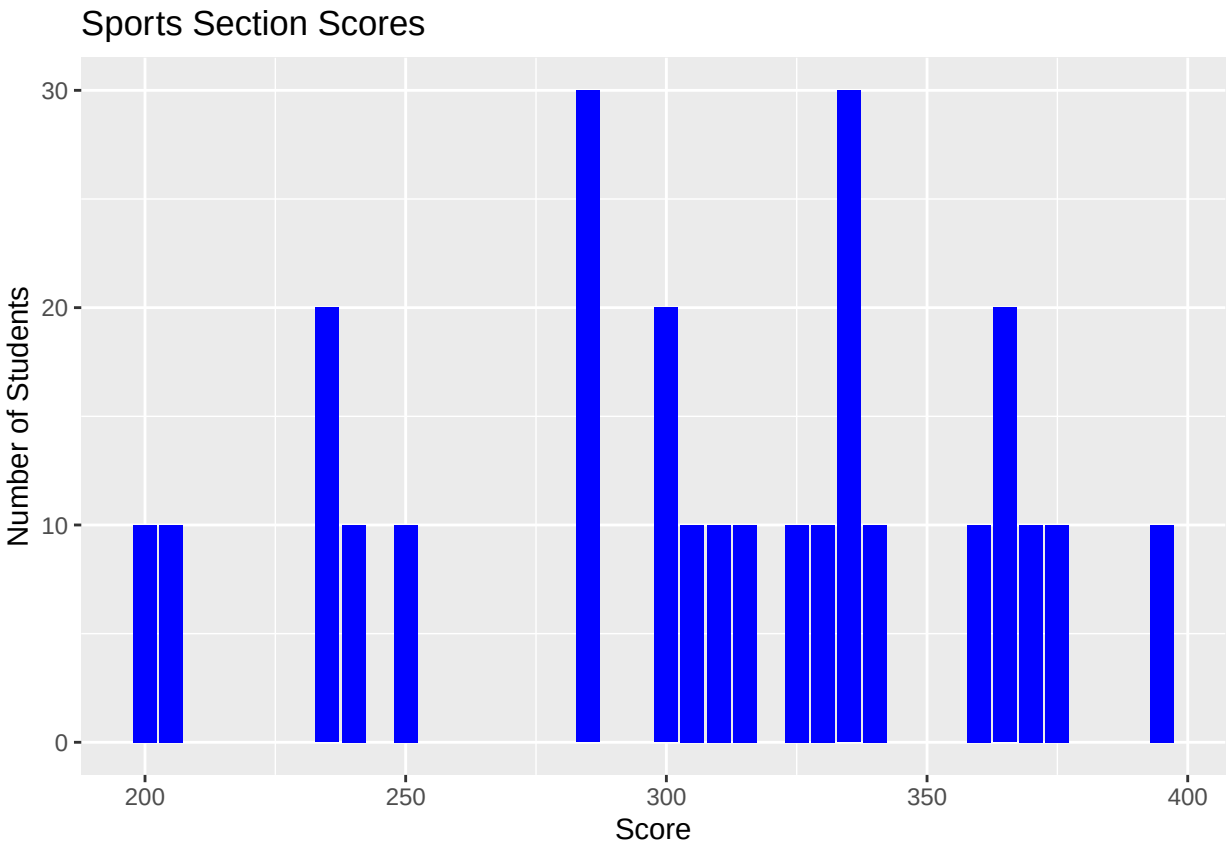
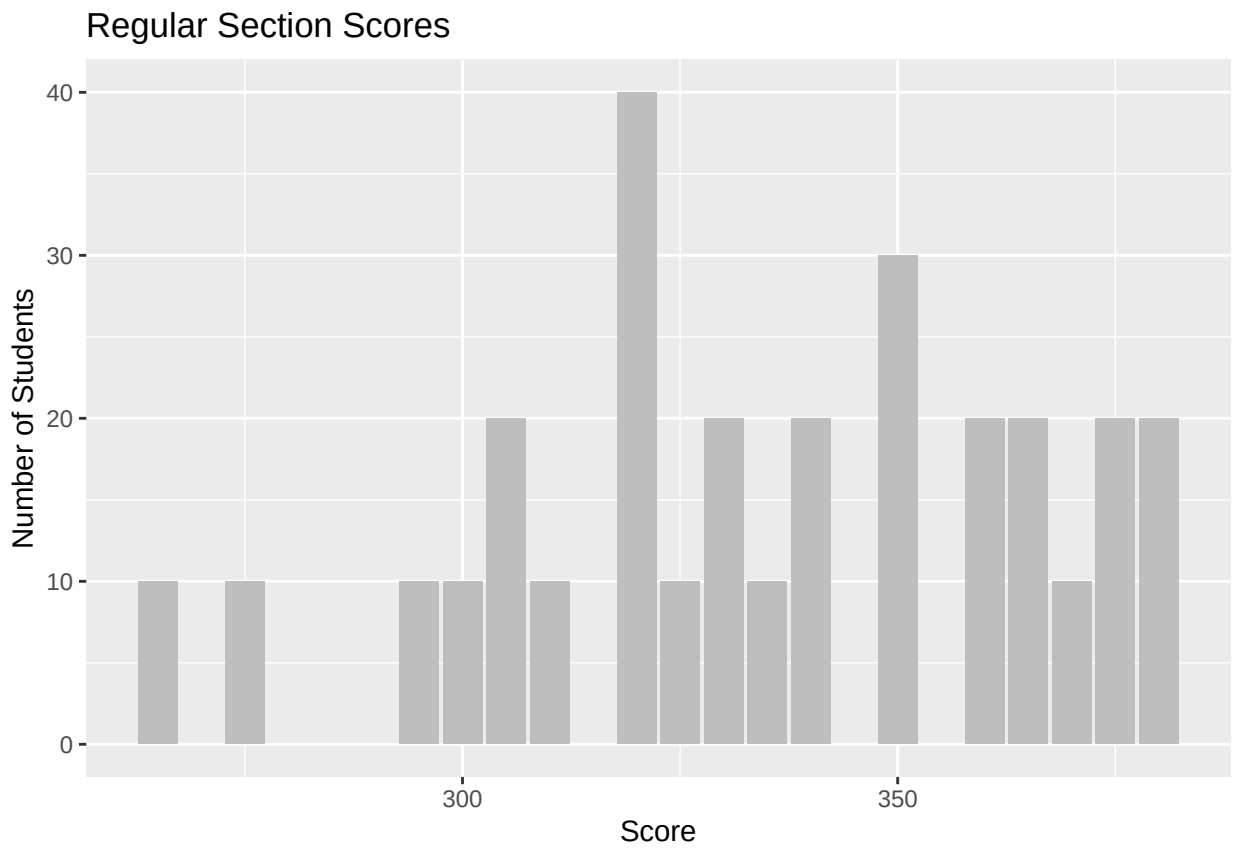
```
# Assignment: ASSIGNMENT 4 Exercise -1
# Name: Pothineni, Kalyan
# Date: 2023-04-04

## Load the ggplot2 package
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.2.3
```

```
## Set the working directory to the root of your DSC 520 directory
setwd("C:/Users/kpothine/OneDrive - Waste Management/Documents/NDO_GIT/dsc520")

# Load the dataset from the CSV file
scores_df <- read.csv("data/scores.csv")

# Subset the dataset by section type
sports_section <- subset(scores_df, Section == "Sports")
regular_section <- subset(scores_df, Section == "Regular")

# Create a plot of the scores and number of students for sports section
sports_plot <- ggplot(sports_section, aes(x = Score, y = Count)) +
  geom_bar(stat = "identity", fill = "blue") +
  ggtitle("Sports Section Scores") +
  xlab("Score") + ylab("Number of Students")

# Display the sports plot
sports_plot
```




```
# Create a plot of the scores and number of students for regular section
regular_plot <- ggplot(regular_section, aes(x = Score, y = Count)) +
  geom_bar(stat = "identity", fill = "gray") +
  ggtitle("Regular Section Scores") +
  xlab("Score") + ylab("Number of Students")


# Display the mixed plot
regular_plot
```




```
#4(a)
# mean and standard deviation of scores for regular section
mean_regular <- mean(regular_section$Score)
sd_regular <- sd(regular_section$Score)
median_regular <- median(regular_section$Score)

#Print the means, sd and median
print(mean_regular)
```

```
## [1] 327.6316
```

```
print(sd_regular)
```

```
## [1] 33.26528
```

```
print(median_regular)
```

```
## [1] 325
```

```
# mean and standard deviation of scores for sports section
mean_sports <- mean(sports_section$Score)
sd_sports <- sd(sports_section$Score)
median_sports <- median(sports_section$Score)
#Print the means, sd and median
print(mean_sports)
```

```
## [1] 307.3684
```

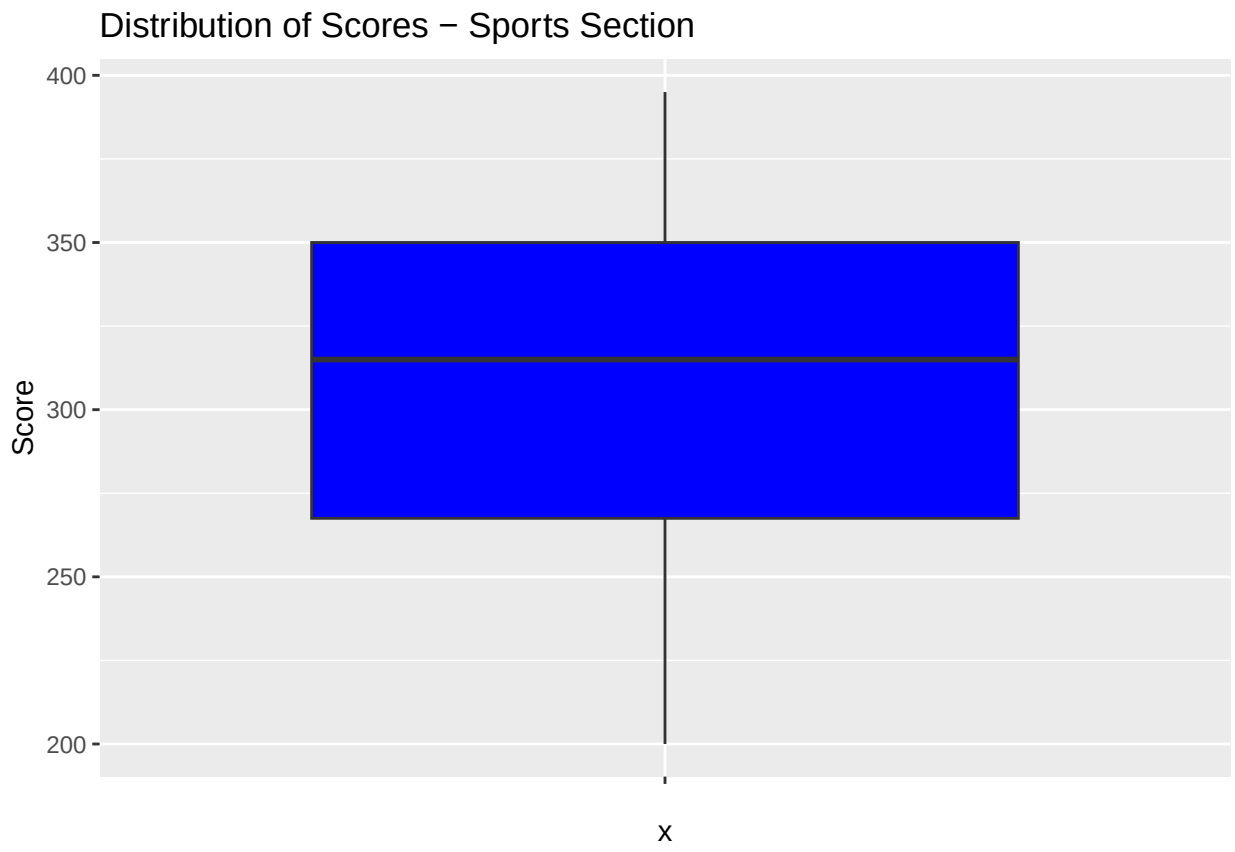
```
print(sd_sports)
```

```
## [1] 58.0318
```

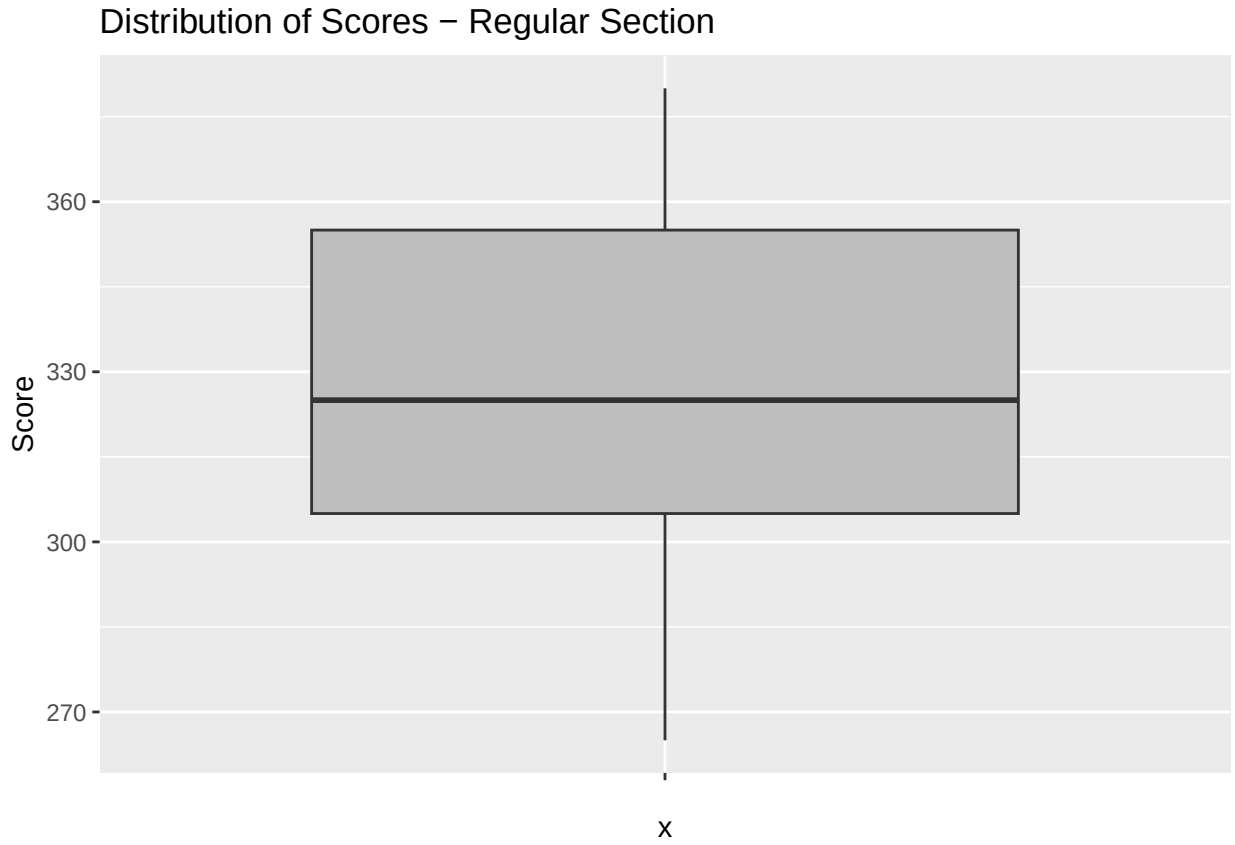
```
print(median_sports)
```

```
## [1] 315
```

```
# boxplot of scores for sports section
ggplot(data = sports_section, aes(x = "", y = Score)) +
  geom_boxplot(fill = "blue") +
  labs(title = "Distribution of Scores - Sports Section", y = "Score")
```




```
# boxplot of scores for regular section
ggplot(data = regular_section, aes(x = "", y = Score)) +
  geom_boxplot(fill = "gray") +
  labs(title = "Distribution of Scores - Regular Section", y = "Score")
```


Distribution of Scores − Regular Section
Score
360
330
300
270
x