CodeColearning-July82024

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Load Libraries

Load and visualize data

```
1  BC <- read_excel("~/Documents/PhD/BC_Natural_HistoryNote/BodyConditionDataBook.xlsx")
2
3  #| include: false
4  #View(BC)
5
6  head(BC)
```

```
# A tibble: 6 x 13
  Score_Average Score_Average(NOTSTA~1 Head  Scapula Thoracic_Region Pelvic_Bone
          <dbl> <chr>                  <chr> <chr>   <chr>           <chr>
1         0.562 1.125                  1     1       2               0.5
2         0.375 0.75                   1     1       1               0
3         0.562 1.125                  1     1       2               0.5
4         0.5   1                      1     1       2               0
5         0.5   1                      1     1       2               0
6         0.562 1.125                  1     1       2               0.5
# i abbreviated name: 1: `Score_Average(NOTSTANDARDIZED)`
# i 7 more variables: D_W <chr>, `Dry/Wet_Season` <chr>, Date_Range <chr>,
#   ID <chr>, Age <chr>, Sex <chr>, AgeSex <chr>
```

```
1  BC <- transform(BC, Score_Average = as.numeric(Score_Average))
2  BC <- transform(BC, Head = as.numeric(Head))
```

```
Warning in eval(substitute(list(...)), `_data`, parent.frame()): NAs introduced
by coercion
```

```
1   BC <- transform(BC, Scapula = as.numeric(Scapula))
```

Warning in eval(substitute(list(...)), `_data`, parent.frame()): NAs introduced
by coercion

```
1   BC <- transform(BC, Thoracic_Region = as.numeric(Thoracic_Region))
```

Warning in eval(substitute(list(...)), `_data`, parent.frame()): NAs introduced
by coercion

```
1   BC <- transform(BC, Pelvic_Bone = as.numeric(Pelvic_Bone))
```

Warning in eval(substitute(list(...)), `_data`, parent.frame()): NAs introduced
by coercion

```
1    BC <- transform(BC, D_W = as.factor(D_W))
2    BC <- transform(BC, Dry.Wet_Season = as.factor(Dry.Wet_Season))
3    BC <- transform(BC, Age = as.factor(Age))
4    BC <- transform(BC, Sex = as.factor(Sex))
5    BC <- transform(BC, AgeSex = as.factor(AgeSex))
6
7    BC <- na.omit(BC)
8    BC$Nobs<- c(1:125)
9
10   ggplot(BC, aes(x=AgeSex, y=Score_Average)) +  geom_boxplot(fill='blue')
```
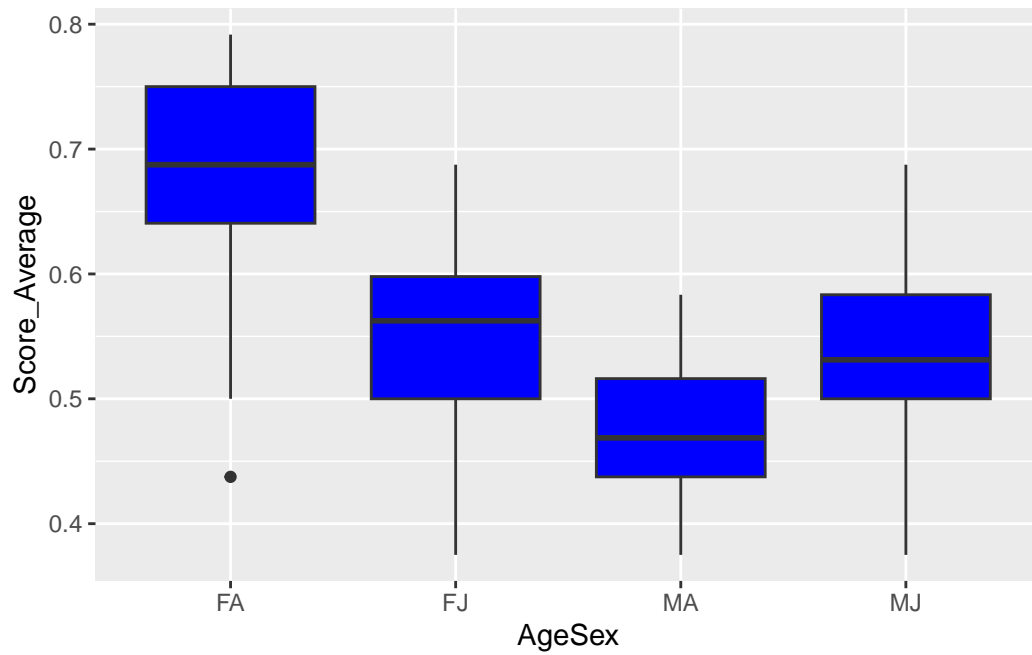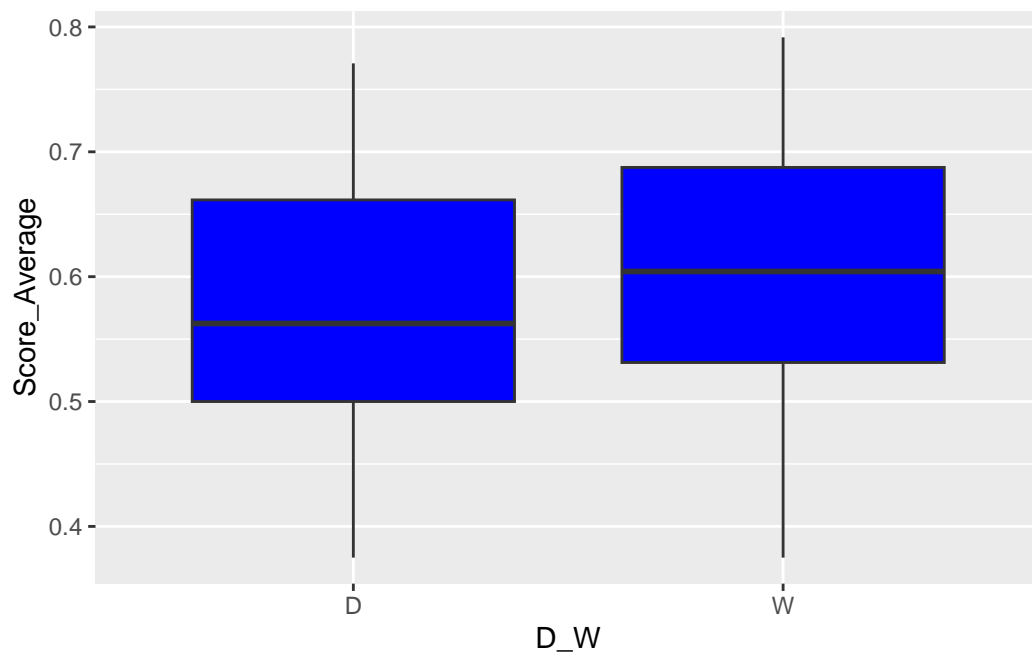
```
1 ggplot(BC, aes(x=Age, y=Score_Average)) + geom_boxplot(fill='blue')
```
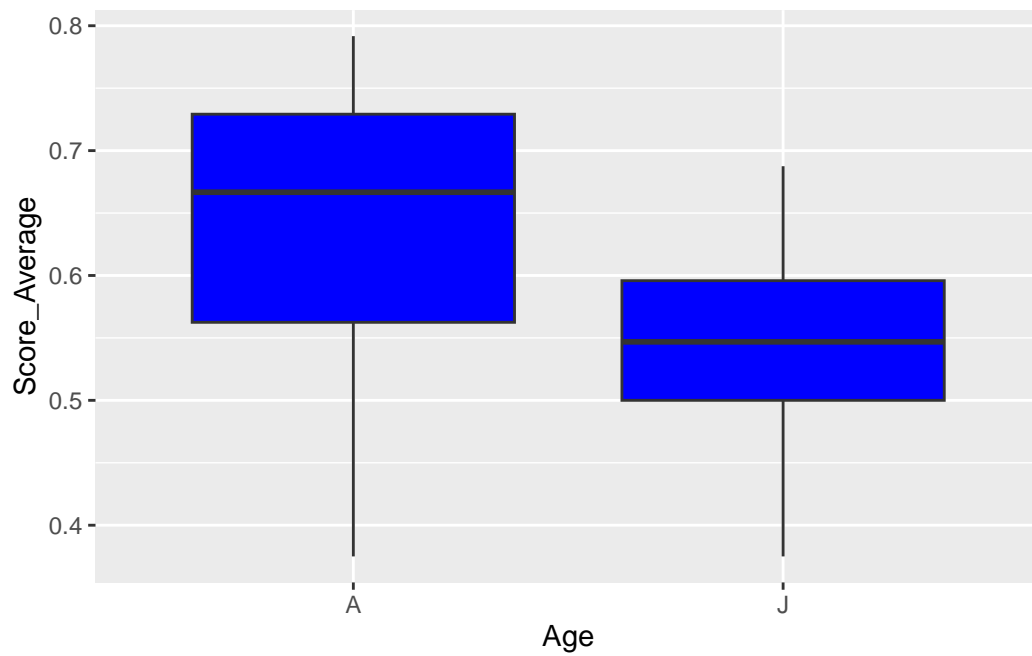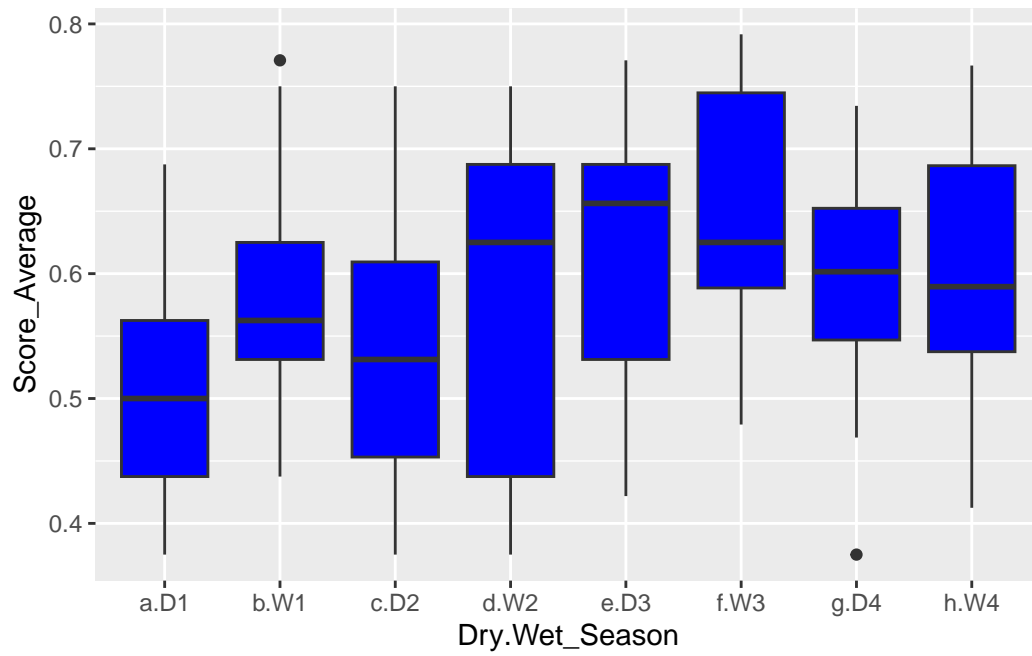
```
ggplot(BC, aes(x=Sex, y=Score_Average)) + geom_boxplot(fill='blue')
```
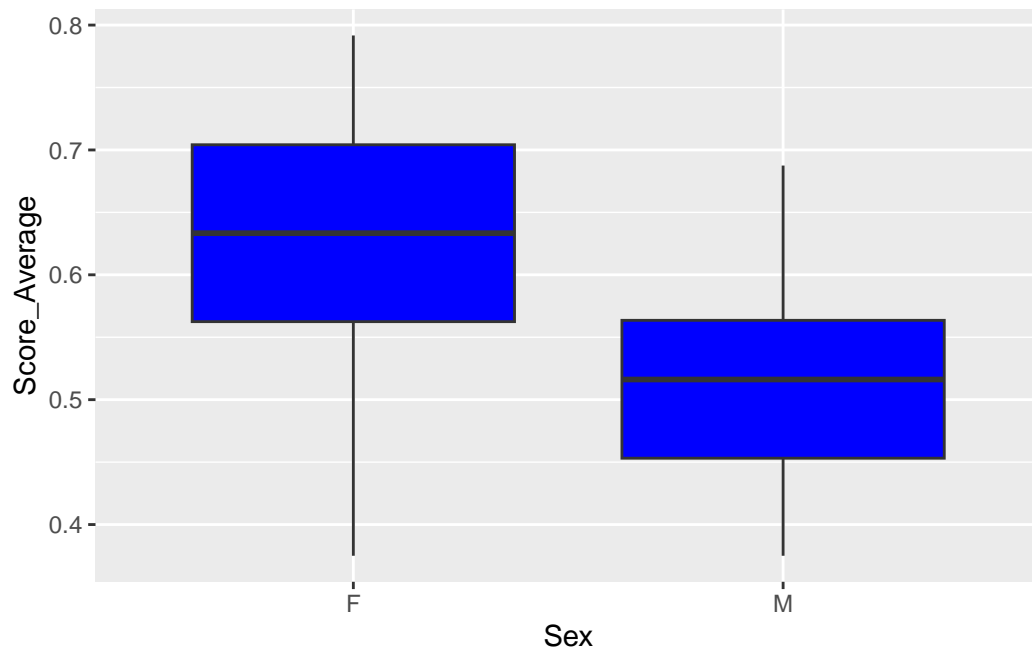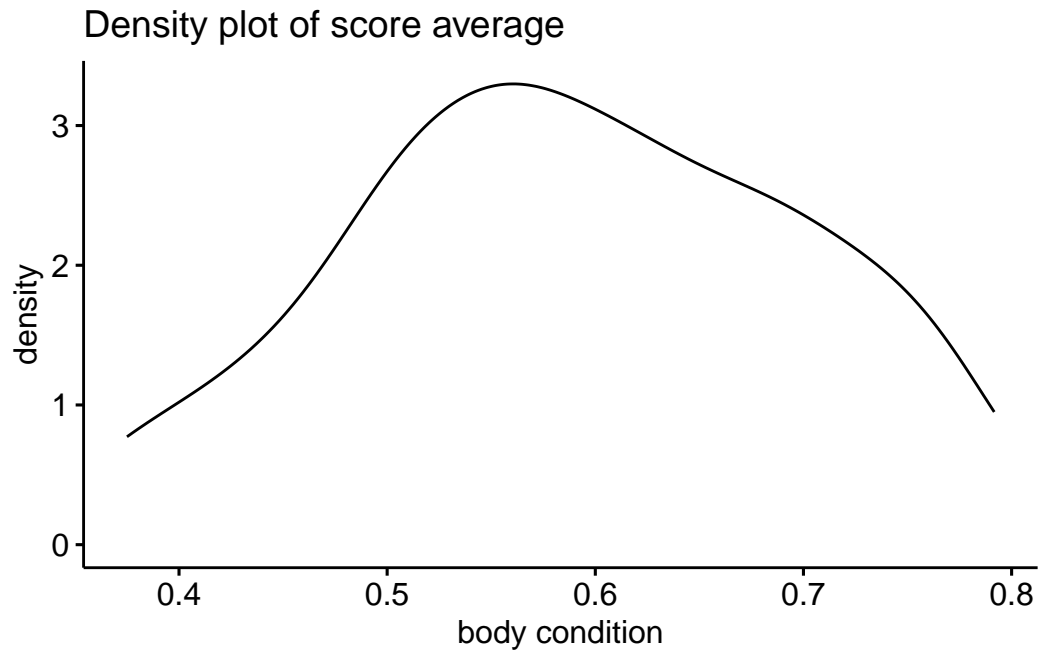


```
ggplot(BC, aes(x=D_W, y=Score_Average)) + geom_boxplot(fill='blue')
```

```
1  ggplot(BC, aes(x=Dry.Wet_Season, y=Score_Average)) + geom_boxplot(fill='blue')
```



```
1  ggdensity(BC$Score_Average,
2          main = "Density plot of score average",
3          xlab = "body condition")
```

Density plot of score average


```
1  ggqqplot(BC$Score_Average)
```