Practical

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Graphical Exploration

Exercise. 1

Draw a box plot to show the distribution of the birth weight(bweight) for the different age groups (agegrp).

-. Label the titles i.e y, x, and the main title

-. Change the color of the titles from the default black to a color of your choice.

-. Increase the size of axis titles and main title

-. save the graph as a .pdf file to a location of your choice

Exercise. 2

Draw a Grouped bar plot showing the number of kids in each category of lbw grouping them by sex.

-. Label the titles i.e y, x, and the main title

-. Change the color of the titles from the default black to a color of your choice.

-. Increase the size of axis titles and main title.

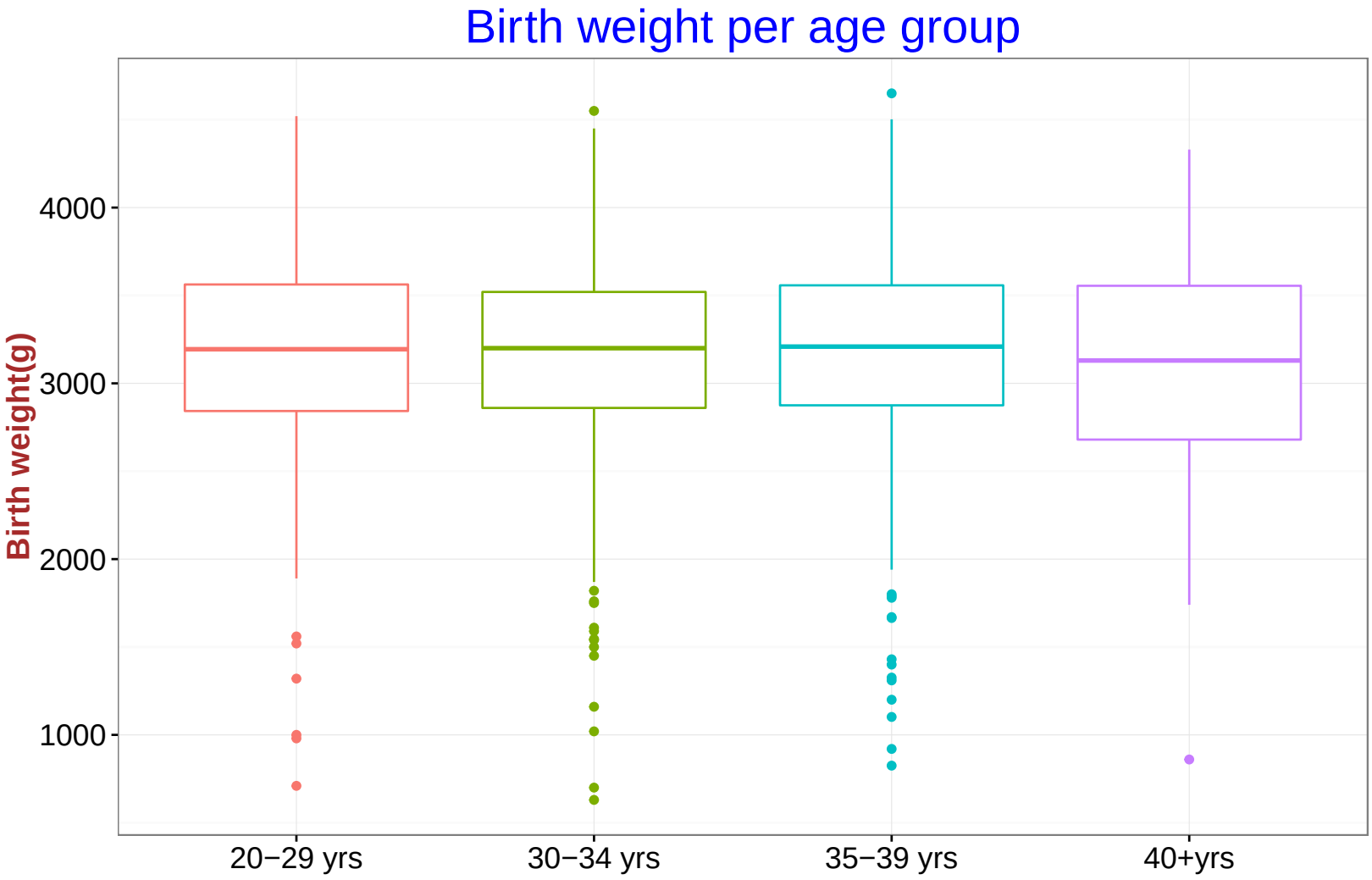
-. save the graph as a .png file to a location of your choice

Solution 1

```
bx<-ggplot(birth, aes(x=agegrp, y=bweight, color=agegrp)) +
    geom_boxplot() + guides(color=FALSE)
bx<- bx + theme_bw() + labs(title="Birth weight per age group"
                            ,x="",y="Birth weight(g)")
bx<- bx + theme(title=element_text(color="blue", size=18),
  axis.title.y=element_text(size=15,face="bold",color="brown"),
  axis.text=element_text(size=14) )
```

```
# Save the plot
ggsave("H:/Jmburu/boxplot.pdf",plot=bx,width=8,height=6,unit="in")
```

Solution 1 ...

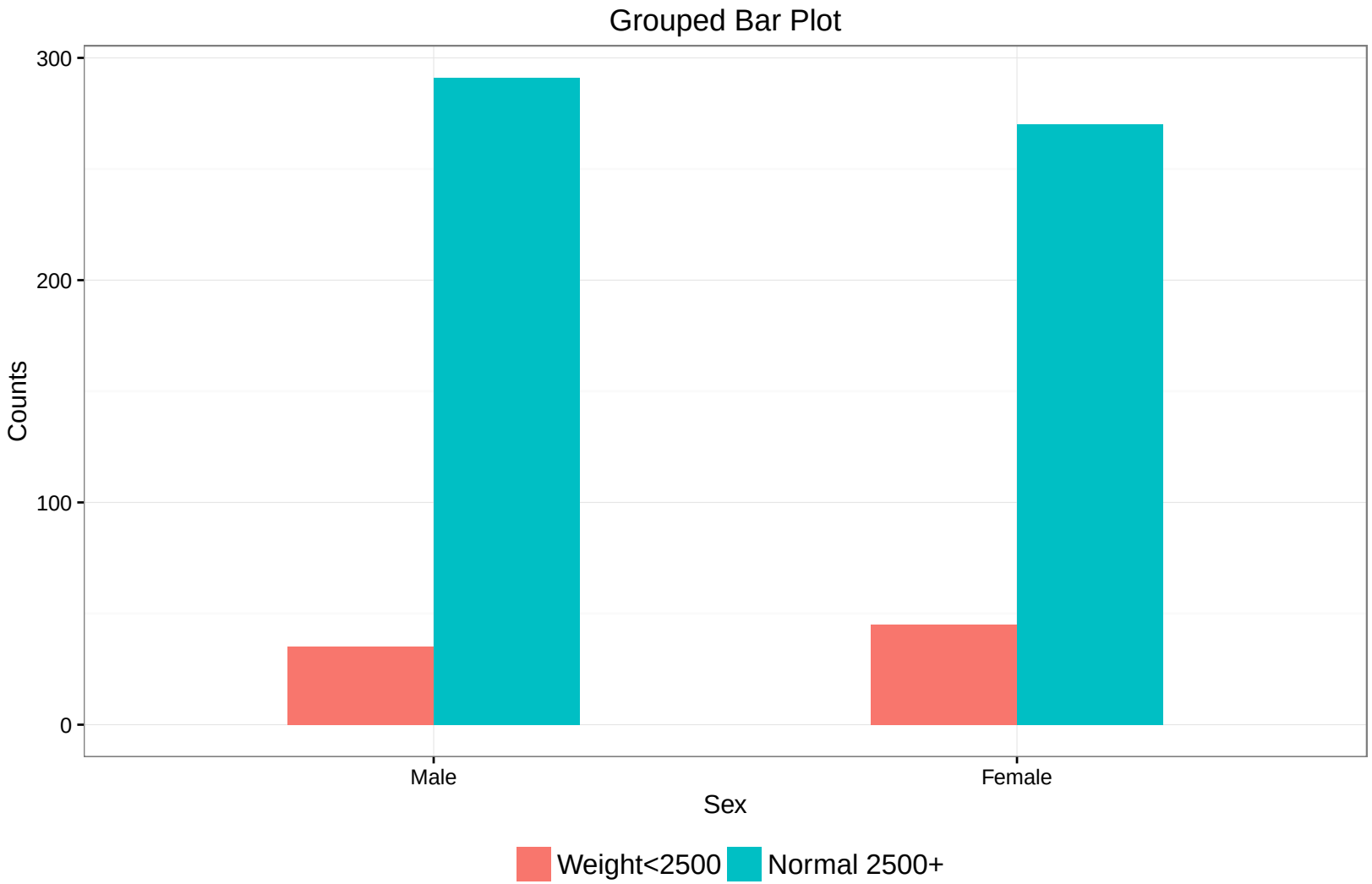

Birth weight per age group
Birth weight(g)
4000
3000
2000
1000
20−29 yrs
30−34 yrs
35−39 yrs
40+yrs

Solution 2 ...

```
b<-ggplot(data=Count, aes(x=sex,y=count,fill=lbw))
b<- b + geom_bar(stat="identity",width=.5,position ="dodge") +
    theme_bw()
b<- b + labs(title="Grouped Bar Plot",x="Sex",y="Counts")
b<- b + theme(legend.key=element_blank(),
            legend.title=element_blank(),
            legend.text=element_text(size = rel(1.1)),
            legend.direction="horizontal",legend.position="bottom")
```

```
# Save the plot
ggsave("H:/Jmburu/barplot.png",plot=b,width=8,height=6,unit="in")
```

Solution 2 ...


Grouped Bar Plot
300
200
100
0
Counts
Male
Female
Sex
Weight<2500
Normal 2500+