

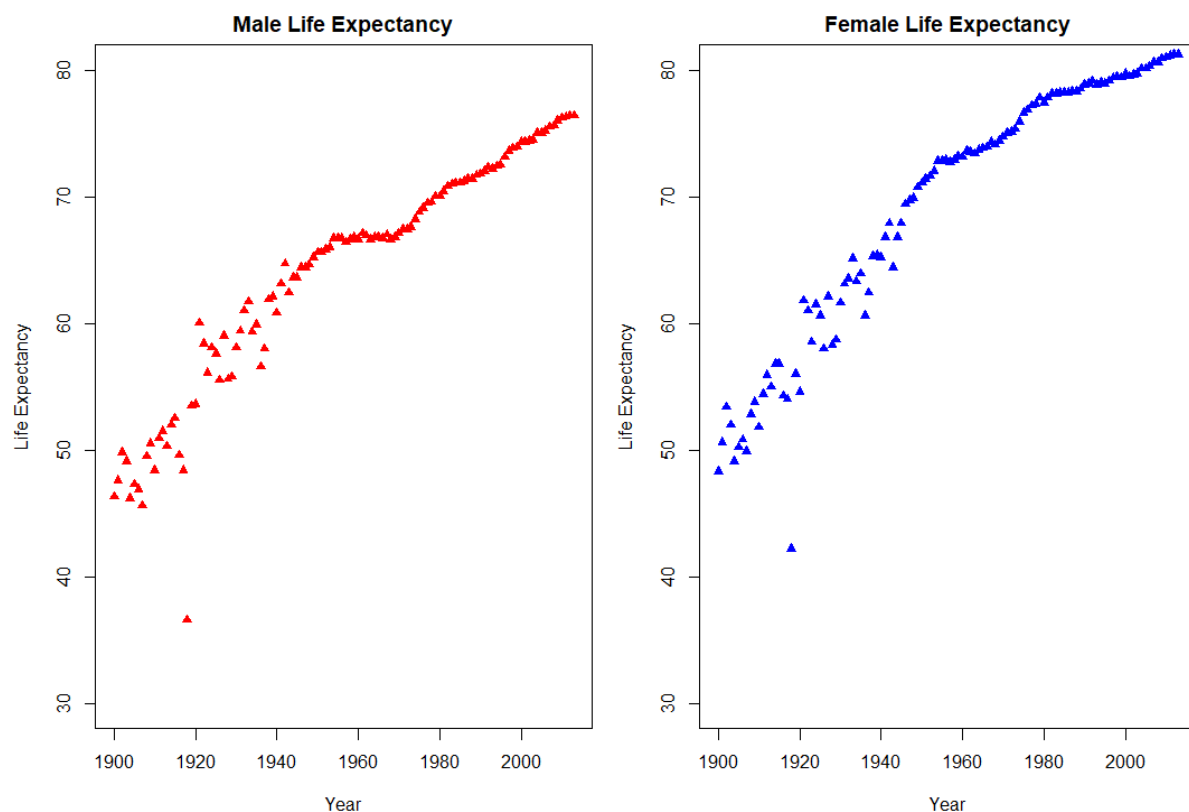
Question 1

```
par(mar=c(5,4,2,1))
```

```
par(mfrow=c(1,2))
```

```
with(subset(LifeExpectancy,Sex=="Male" & Race=="All  
Races"),plot(Year,Average.Life.Expectancy,main="Male Life Expectancy",pch=17,ylab="Life  
Expectancy",xlab="Year",col="red",ylim=c(30,80)))
```

```
with(subset(LifeExpectancy,Sex=="Female" & Race=="All  
Races"),plot(Year,Average.Life.Expectancy,main="Female Life Expectancy",pch=17,ylab="Life  
Expectancy",xlab="Year",col="blue",ylim=c(30,80)))
```



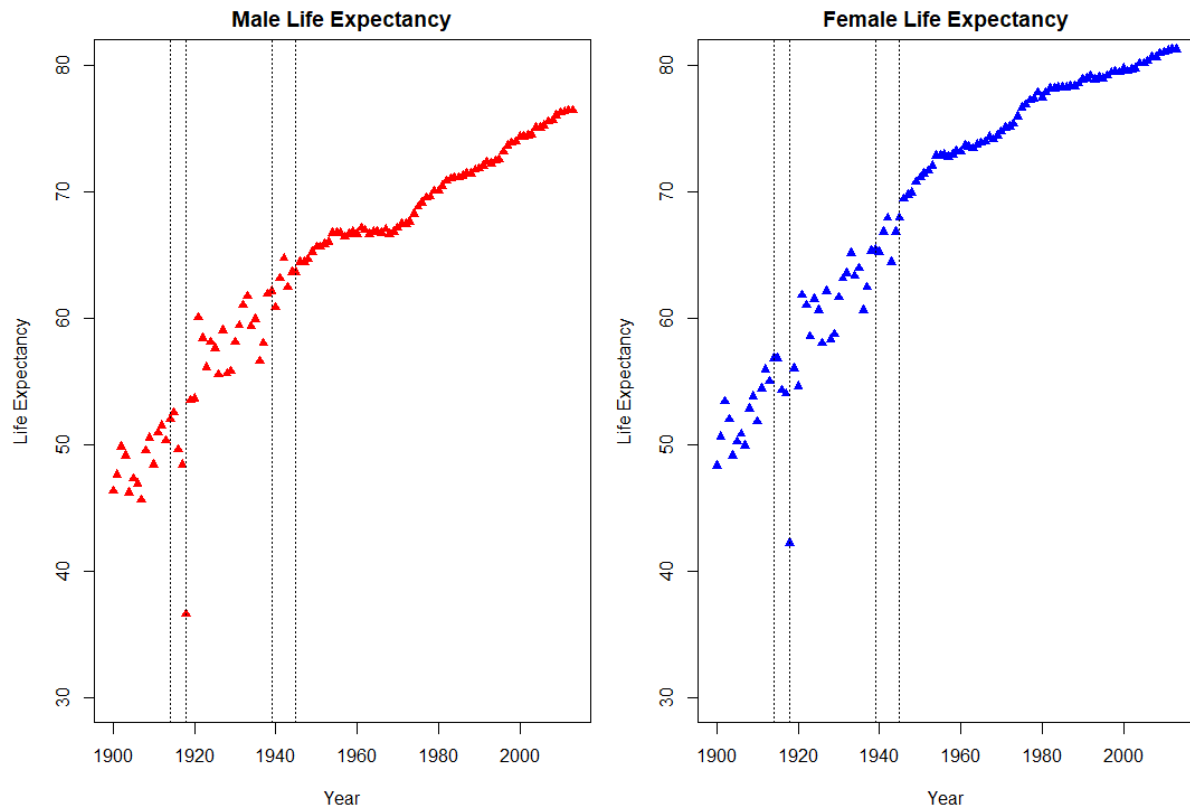
Question 2

```
with(subset(LifeExpectancy,Sex=="Male" & Race=="All  
Races"),plot(Year,Average.Life.Expectancy,main="Male Life Expectancy",pch=17,ylab="Life  
Expectancy",xlab="Year",col="red",ylim=c(30,80)))
```

```
abline(v=c(1914,1918,1939,1945),lty="dotted")
```

```
with(subset(LifeExpectancy,Sex=="Female" & Race=="All  
Races"),plot(Year,Average.Life.Expectancy,main="Female Life Expectancy",pch=17,ylab="Life  
Expectancy",xlab="Year",col="blue",ylim=c(30,80)))
```

```
abline(v=c(1914,1918,1939,1945),lty="dotted")
```



Question 3

```
par(mfcol=c(2,1))
```

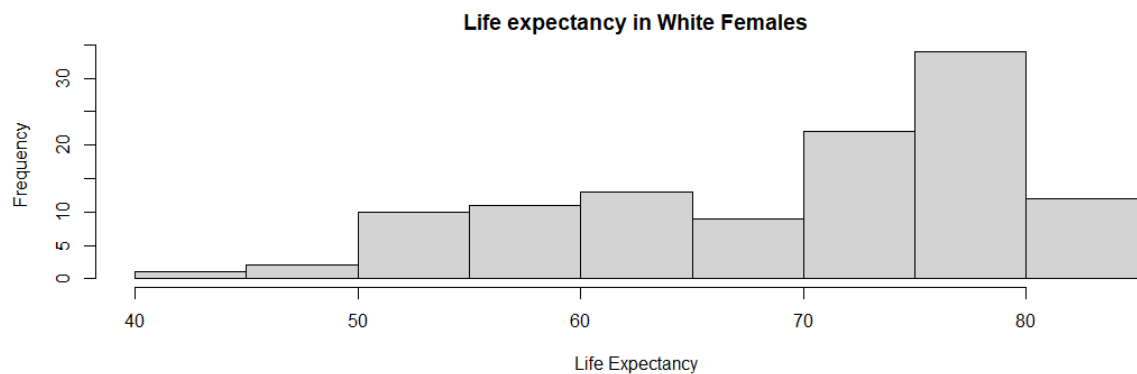
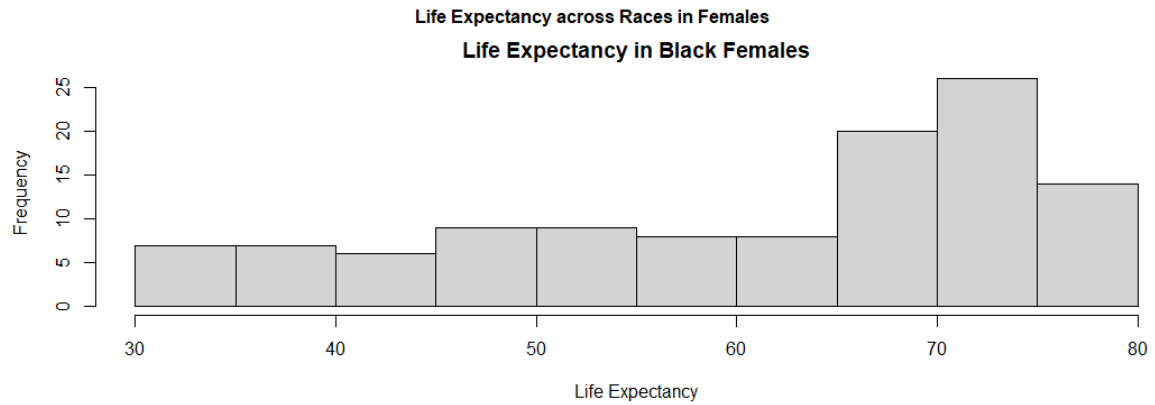
```
par(oma=c(0,0,2,0))
```

```
par(mar=c(5,5,2,1))
```

```
hist(subset(LifeExpectancy,Sex=="Female" & Race == "Black")$Average.Life.Expectancy,xlab="Life Expectancy",main= "Life Expectancy in Black Females")
```

```
hist(subset(LifeExpectancy,Sex=="Female" & Race == "White")$Average.Life.Expectancy,xlab="Life Expectancy",main="Life expectancy in White Females")
```

```
mtext(("Life Expectancy across Races in Females"),outer=TRUE,font=2)
```



Question 4

```
install.packages("gridExtra")
```

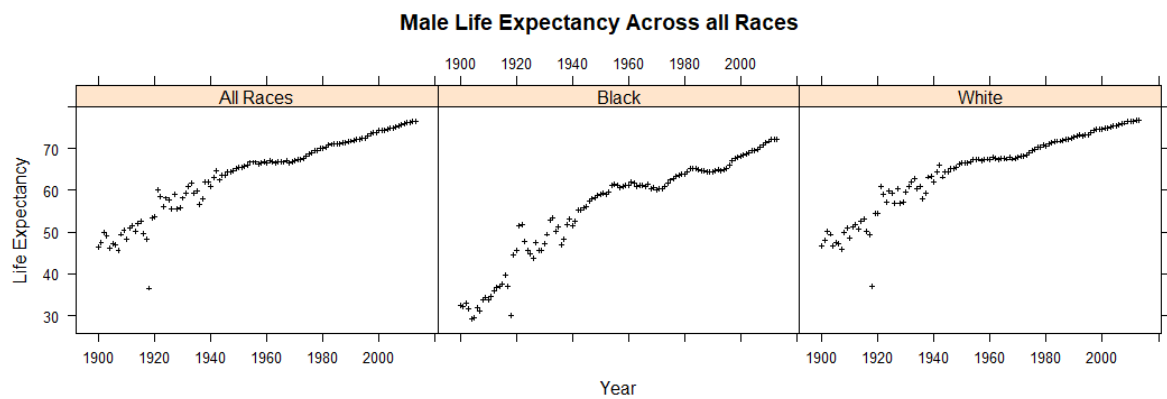
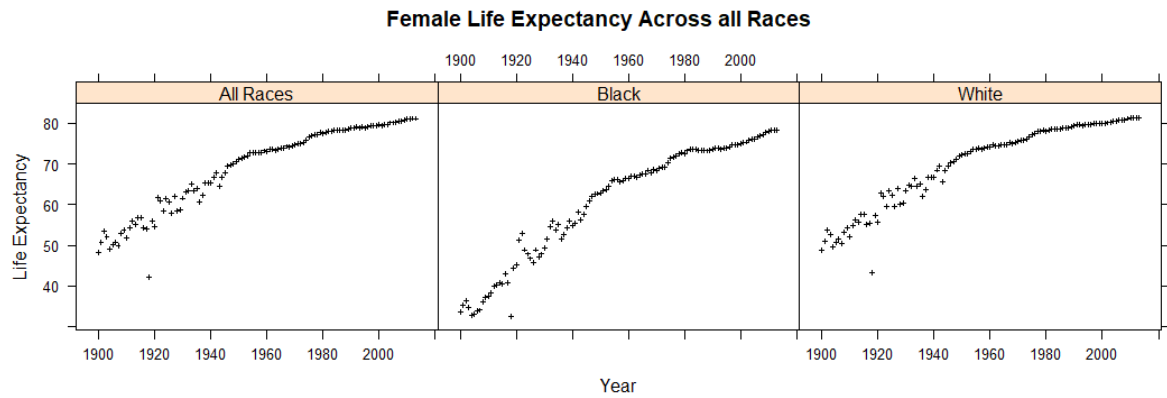
```
library("gridExtra")
```

```
library("lattice")
```

```
plot1<-xyplot(Average.Life.Expectancy~Year |
Race,data=subset(LifeExpectancy,Sex=="Female"),ylab="Life
Expectancy",xlab="Year",as.table=T,layout=c(3,1),main="Female Life Expectancy Across all
Races",col="black",pch=3,cex=0.35)
```

```
plot2<-xyplot(Average.Life.Expectancy~Year |
Race,data=subset(LifeExpectancy,Sex=="Male"),ylab="Life
Expectancy",xlab="Year",as.table=T,layout=c(3,1),main="Male Life Expectancy Across all
Races",col="black",pch=3,cex=0.35)
```

```
grid.arrange(plot1,plot2)
```



Question 5

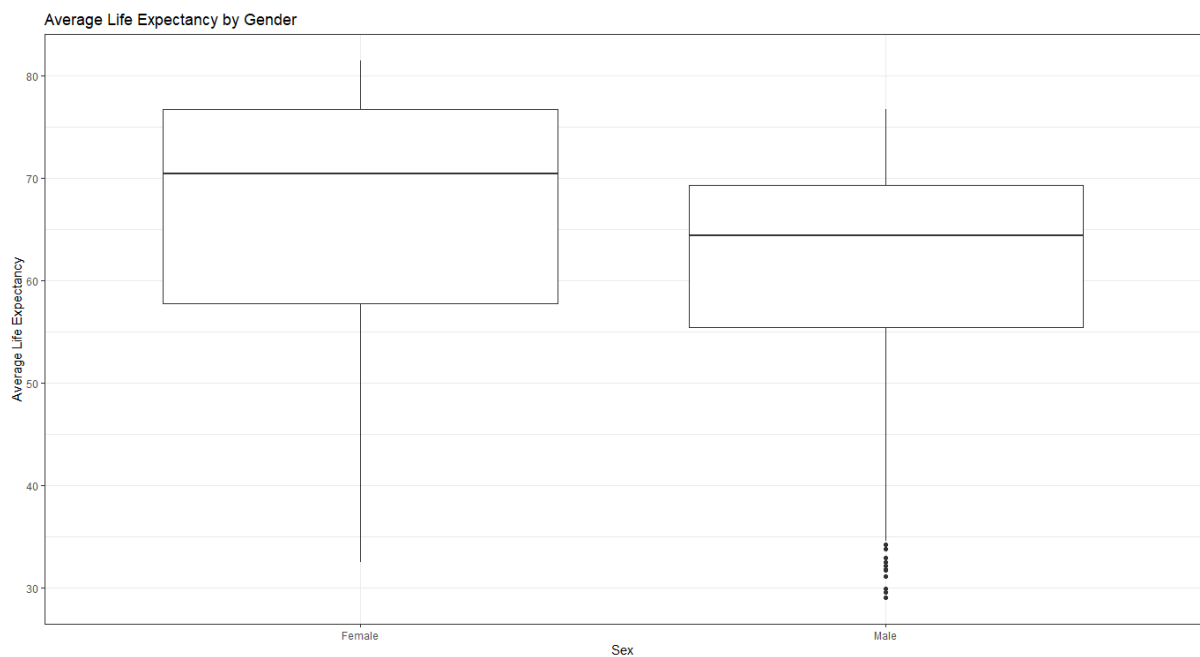
```
library(ggplot2)
```

```
ggplot(subset(LifeExpectancy,Sex!="Both Sexes"),aes(x=Sex,y=Average.Life.Expectancy))+
```

```
  geom_boxplot()+
```

```
  labs(y="Average Life Expectancy",x="Sex",title="Average Life Expectancy by Gender")+
```

```
  theme_bw()
```



Question 6

```
library(ggplot2)
```

```
ggplot(subset(LifeExpectancy, Sex!="Both Sexes" & Race!="All  
Races"), aes(x=Average.Life.Expectancy)) +
```

```
facet_wrap(Sex~Race) +
```

```
geom_density(alpha=0.7, color="black", fill="light blue") +
```

```
labs(y="density", x="Life Expectancy", title="Life Expectancy by Race and Sex")
```

