Assignment for Lab 3

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Due noon October 3, 2018

Question 1:Complete Problem 2 from Activity for Lab 3

```
library(ggplot2)
library(gapminder)
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------- tidyverse 1.2.1 --
```

```
## <U+221A> tibble  1.4.2     <U+221A> purrr   0.2.5
## <U+221A> tidyr   0.8.1     <U+221A> dplyr   0.7.6
## <U+221A> readr   1.1.1     <U+221A> stringr 1.3.1
## <U+221A> tibble  1.4.2     <U+221A> forcats 0.3.0
```

```
## -- Conflicts ------------------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

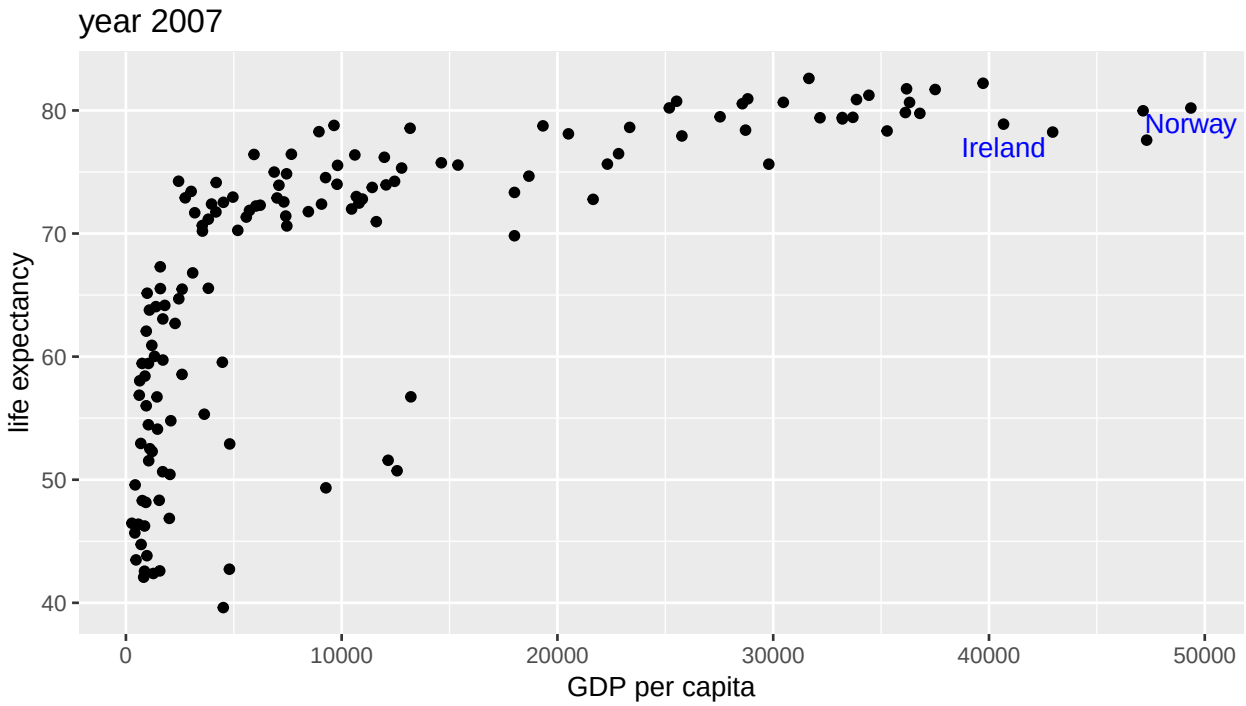
```
p=ggplot()
data("gapminder")
head(gapminder)
```

```
## # A tibble: 6 x 6
##   country     continent  year lifeExp      pop gdpPercap
##   <fct>       <fct>     <int>   <dbl>    <int>     <dbl>
## 1 Afghanistan Asia       1952    28.8  8425333      779.
## 2 Afghanistan Asia       1957    30.3  9240934      821.
## 3 Afghanistan Asia       1962    32.0 10267083      853.
## 4 Afghanistan Asia       1967    34.0 11537966      836.
## 5 Afghanistan Asia       1972    36.1 13079460      740.
## 6 Afghanistan Asia       1977    38.4 14880372      786.
```

```
y2007 <-filter(gapminder, gapminder$year == 2007)
gdp40000<- filter(y2007, gdpPercap > 40000, continent =="Europe");gdp40000
```

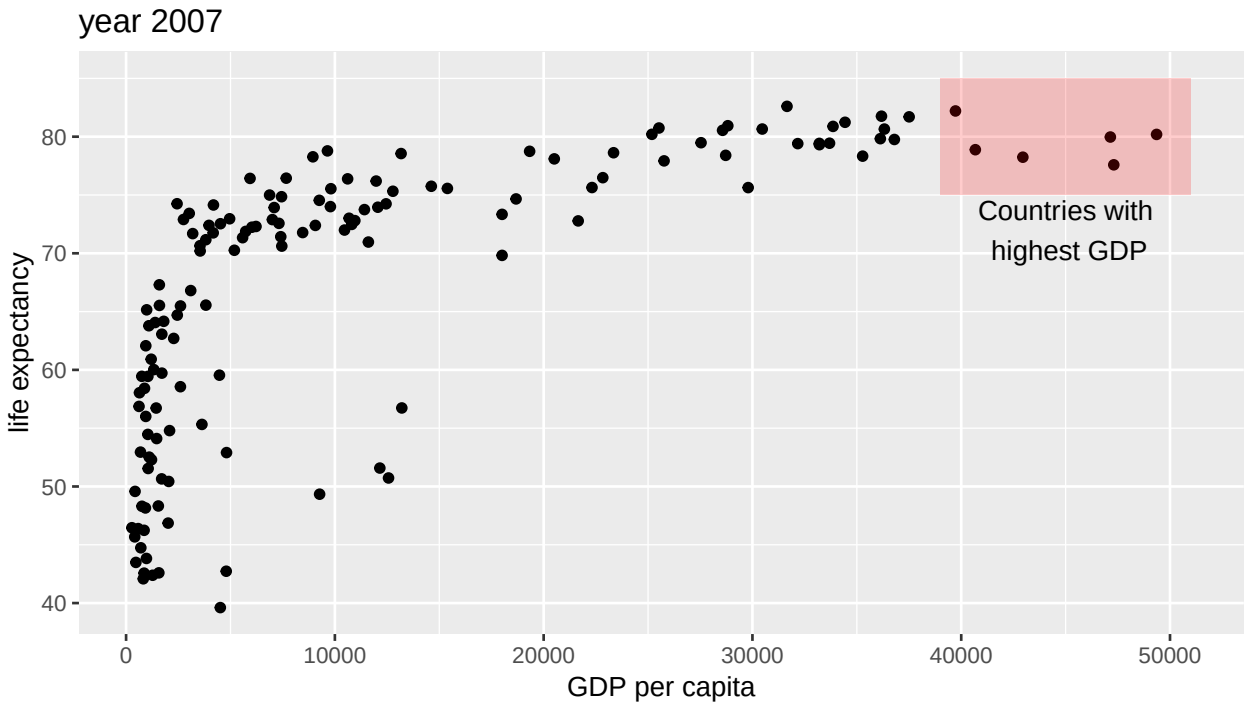
```
## # A tibble: 2 x 6
##   country continent  year lifeExp     pop gdpPercap
##   <fct>   <fct>     <int>   <dbl>   <int>     <dbl>
## 1 Ireland Europe     2007    78.9 4109086    40676.
## 2 Norway  Europe     2007    80.2 4627926    49357.
```

```
plot = p+geom_point(data = y2007,aes(x= gdpPercap,y = lifeExp))+
  annotate("text", x=c(40676.00,49357.19),
           y=c(77,79),
           label = c("Ireland","Norway"), color = "blue")+
  labs(title = "year 2007", y = "life expectancy", x= "GDP per capita")
plot
```



Question 2:Modify your R code for the previous problem and recreate the graph

```
lab<-("Countries with\n highest GDP")
plot2 = p+geom_point(data = y2007,aes(x= gdpPercap,y = lifeExp))+
  labs(title = "year 2007", y = "life expectancy", x= "GDP per capita")+
  annotate("rect", xmin = 39000,xmax = 51000,ymin = 75, ymax = 85, fill = "red",alpha=0.2)+
  annotate("text", x = 45000, y = 72, label = lab)
plot2
```


year 2007
life expectancy
80
70
60
50
40
0
10000
20000
30000
40000
50000
GDP per capita
Countries with
highest GDP