```
library(readxl)
library(tidyverse)
library(plyr)
library(dplyr)
library(ggplot2)
library(dplyr)
library(scales)
library(sqldf)
library(reshape2)
library(gganimate)
covid_data <- read_excel("C:/Users/Jaswanth/Desktop/DataManagement/
covid_data.xlsx")

#Filtering gender with Male and Female
total_Gender=filter(covid_data,Gender=='Male'| Gender=='Female')

#Filtering people who are vulnerable according to age group

ggplot(total_Gender, aes(x= Age_group,group=Gender)) +
  geom_bar(aes(y = ..prop.., fill = factor(..x..)), stat="count") +
theme_minimal()+
  geom_text(aes( label = scales::percent(..prop..),
                 y= ..prop.. ), stat= "count", vjust = -.8) +
  facet_grid(~Gender) +
  scale_y_continuous(labels = scales::percent)+
  labs(fill = "Age Group", y = "Percentage of people affected",title="Percent
of People Affected According to Age Group")

#Filtering people who died according to age group

total_death=filter(total_Gender,Death_num =="1")
ggplot(total_death, aes(x= Age_group,  group=Gender)) +
  geom_bar(aes(y = ..prop.., fill = factor(..x..)), stat="count") +
theme_minimal()+
  geom_text(aes( label = scales::percent(..prop..),
                 y= ..prop.. ), stat= "count", vjust = -.8) +
  facet_grid(~Gender) +
  scale_y_continuous(labels = scales::percent)+
  labs( fill = "Age Group", y = "Percentage of people dead",title="Fatality
Rate of People According to Age Group")



#Mode of transmission for different age groups

ggplot(total_death, aes(x= Age_group,group=Transmission_status)) +
  geom_bar(aes(y = ..prop.., fill = factor(..x..)), stat="count",width = 0.8)
+ theme_minimal()+
  geom_text(aes( label = scales::percent(..prop..),
                 y= ..prop.. ), stat= "count", vjust = -1) +
  labs(fill = "Age Group", y = "Percentage of people affected")+
  facet_grid(~Transmission_status) +
  scale_y_continuous(labels = scales::percent)
```

```
#People  Hospitalized
ggplot(total_Gender, aes(x= Age_group,y=Hospitalization,group=Gender)) +
  geom_bar(aes(y = ..prop.., fill = factor(..x..)), stat="count") +
theme_minimal()+
  geom_text(aes( label = scales::percent(..prop..),
                 y= ..prop.. ), stat= "count", vjust = -.8) +
  facet_grid(~Gender) +
  scale_y_continuous(labels = scales::percent)+
  labs(x = "Different Age Group", y = "Percentage of people affected")


#People who got admitted in Hospital and survived
total_ICU=filter(covid_data,((Intensive_care_unit_status=='Yes'|
Intensive_care_unit_status=='No')& Hospitalization=='1'& Death_status=='No'))

animation1 <- ggplot(total_ICU, aes(x= Age_group,fill =
Intensive_care_unit_status)) +
  geom_bar(position=position_dodge(width=0.7))
+geom_text(aes(label=..count..),stat='count',position=position_dodge(width=0.7),vjust
= 1) +
  labs(x = "Younger population")
+transition_states(Age_group,transition_length=2,state_length=1)+shadow_mark()
+enter_fade()+
  exit_fade()
animate(animation1, nframes=100, end_pause=50, rewind= FALSE)

#People who admitted in ICU
total_ICU_death=filter(covid_data,((Intensive_care_unit_status=='Yes'|
Intensive_care_unit_status=='No')& Hospitalization=='1'& Death_status=='Yes'))

animation2 <- ggplot(total_ICU_death, aes(x= Age_group,fill =
Intensive_care_unit_status)) +
  geom_bar(position=position_dodge(width=0.7))
+geom_text(aes(label=..count..),stat='count',position=position_dodge(width=0.7),vjust
= 1) +
  labs(x = "Younger population",title='Population who got admitted in Hospital
but still Died')
+transition_states(Age_group,transition_length=2,state_length=1)+shadow_mark()
+enter_fade()+
  exit_fade()
animate(animation2, nframes=100, end_pause=50, rewind= FALSE)
```