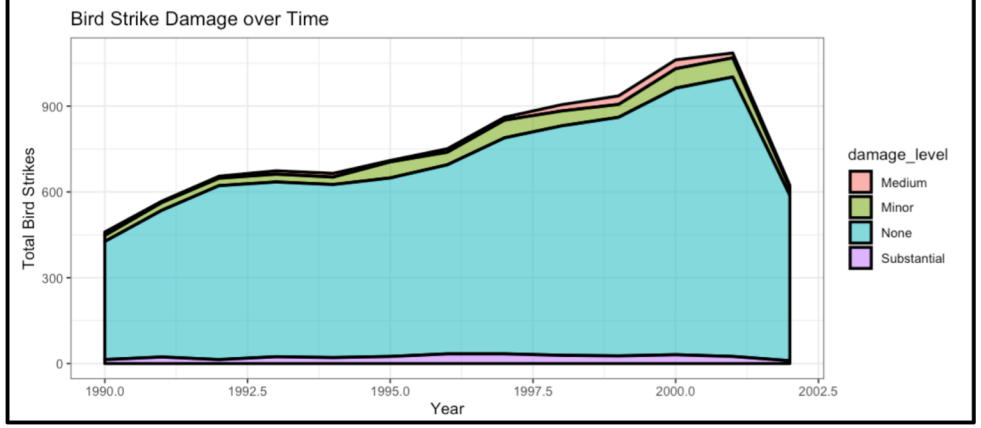
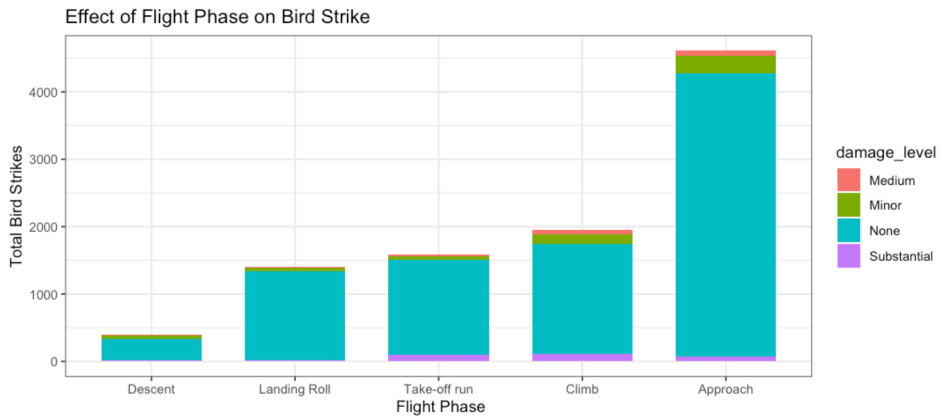
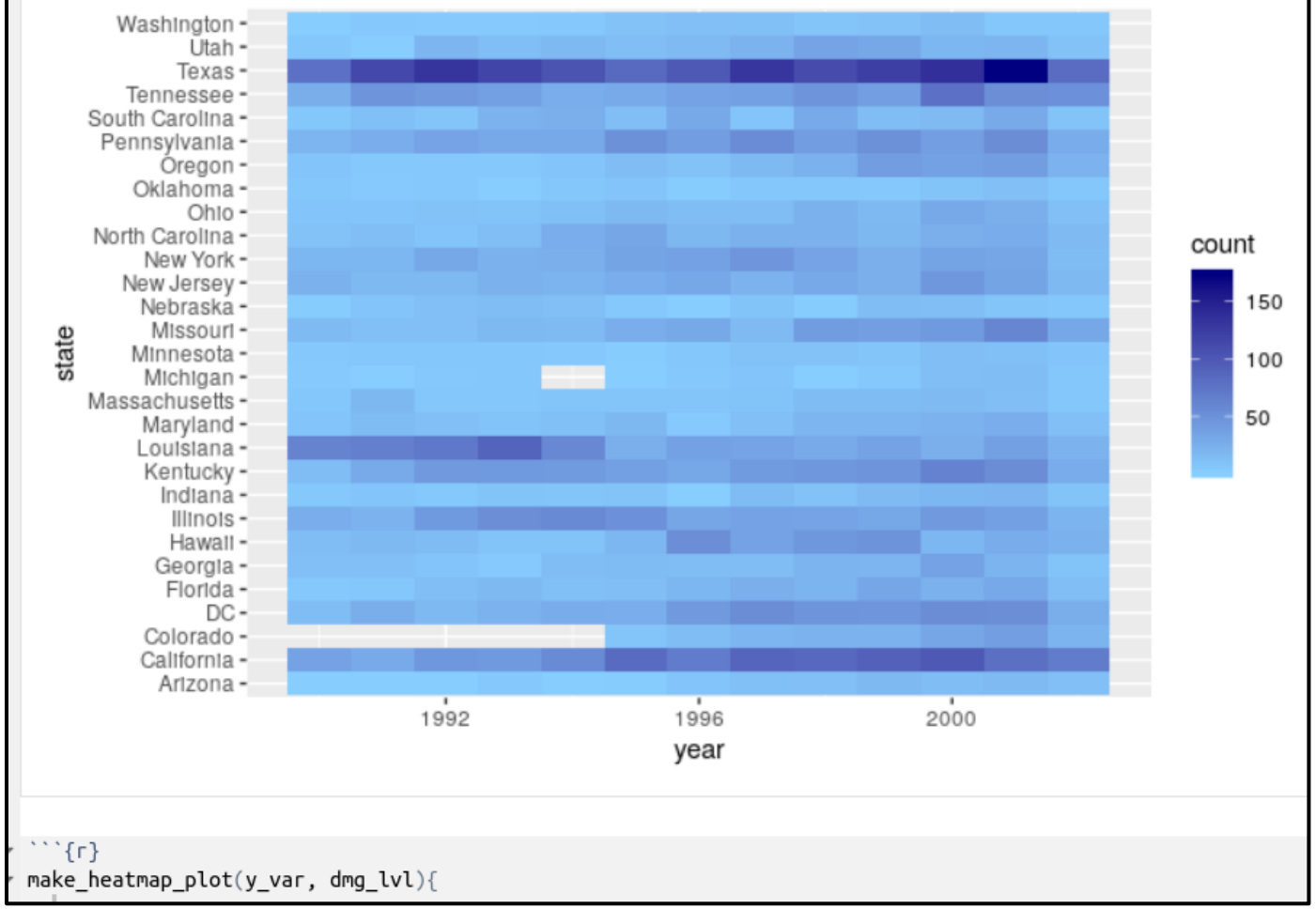
```r
# Stacked Area Plot

options(repr.plot.width = 9, repr.plot.height = 4)

data <- df%>% group_by(year, damage_level)%>%
      summarize(count = n())

# Plot
ggplot(data, aes(x=year, y=count, fill=damage_level)) +
    geom_area(alpha=0.6 , size=1, colour="black") +
    labs(y = "Total Bird Strikes",
         x = "Year",
         title = "Bird Strike Damage over Time") +
         theme_bw()
```




```r
# Column Chart Plot
options(repr.plot.width = 9, repr.plot.height = 4)

df_grouped <- df%>% group_by(flight_phase, damage_level)%>%
      summarize(count = n())

df_grouped$flight_phase <- factor(df_grouped$flight_phase,levels = c('Descent', 'Landing Roll', 'Take-off run', 'Climb', 'Approach'))

p <- ggplot(df_grouped, aes(x = flight_phase, y = count))+
      geom_col(aes(fill = damage_level), width = 0.7) +
      #geom_text(aes(y = count, label = count, group =damage_level), color = "white")+ # Fill column with count
      labs(y = "Total Bird Strikes",
                x = " Flight Phase",
                title = "Effect of Flight Phase on Bird Strike") +
     theme_bw()
p
```




```r
```{r pressure, echo=FALSE}
ggplot(data = df, aes(x = year, y = state)) +
  geom_tile(data = df %>% group_by(year, state) %>% summarize(count = n()),aes(fill = count)) +
  scale_fill_gradient(low = "skyblue1",  high = "navyblue")
```
```




```r
```{r}
make_heatmap_plot(y_var, dmg_lvl){
```
```