***# Create a Word Cloud using R***

#The package tm provides functions for text manipulation and preprocessing.

install.packages("tm")

#The package wordcloud allows to create word clouds for visualizing word frequency data.

install.packages("wordcloud")

#The package RColorBrewer offers a selection of color palettes to enhance visualizations.

install.packages("RColorBrewer")

# Load necessary libraries

library(tm)

library(wordcloud)

library(RColorBrewer)

# Create your text data

text <- "Organizations must implement stringent security measures to comply with regulations like the General Data Protection Regulation (GDPR) and safeguard data streams through secure networks. Dense wordcloud analysis powered by state-of-the-art machine learning delivers invaluable insights into privacy compliance while consistently revealing innovative patterns and driving continuous learning. To further enhance data protection, organizations implement additional stringent security measures that integrate advanced machine learning analysis with dense wordcloud techniques, reinforcing privacy standards and ensuring regulatory compliance. This dynamic approach, merging cutting-edge machine learning with robust innovation, enables organizations to generate deep insights, expose recurring patterns, and proactively comply with the General Data Protection Regulation, ultimately safeguarding data streams through resilient networks. Organizations must implement stringent security measures to comply with regulations like the General Data Protection Regulation (GDPR) and safeguard data streams through secure networks. Dense wordcloud analysis powered by state-of-the-art machine learning delivers invaluable insights into privacy compliance while consistently revealing innovative patterns and driving continuous learning. To further enhance data protection, organizations implement additional stringent security measures that integrate advanced machine learning analysis with dense wordcloud techniques, reinforcing privacy standards and ensuring regulatory compliance. This dynamic approach, merging cutting-edge machine learning with robust innovation, enables organizations to generate deep insights, expose recurring patterns, and proactively comply with the General Data Protection Regulation, ultimately safeguarding data streams through resilient networks.”"

# Create a text corpus

corpus <- Corpus(VectorSource(text))

# Clean and preprocess the text data

corpus <- tm\_map(corpus, content\_transformer(tolower)) # Convert text to lowercase

corpus <- tm\_map(corpus, removePunctuation) # Remove punctuation

corpus <- tm\_map(corpus, removeNumbers) # Remove numbers

corpus <- tm\_map(corpus, removeWords, stopwords("english")) # Remove common stopwords

# Create a term-document matrix

tdm <- TermDocumentMatrix(corpus)

# Convert the term-document matrix into a matrix

tdm\_matrix <- as.matrix(tdm)

# Calculate word frequencies

word\_freq <- rowSums(tdm\_matrix)

word\_freq <- sort(word\_freq, decreasing = TRUE)

# Create a data frame with words and their frequencies

df <- data.frame(word = names(word\_freq), freq = word\_freq)

# Generate the word cloud

set.seed(123) # For reproducibility

wordcloud(words = df$word, freq = df$freq, max.words = 100,

random.order = FALSE, colors = brewer.pal(8, "Dark2"))