

DEMOGRAPHICS

TEVES, CONLU, GERALDOY

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```
library(ggplot2) library(dplyr)

library(readr) Survey <- read_csv("/cloud/project/User Experience Survey_ Online and Offline Video
Editing Apps (Responses) - Form Responses 1 (1).csv") View(Survey)

#Age Demographics age <- c(20,18,20,20,19,22,22,21,20,23,19,18, 19,20,21,23,20,20,20,22,22,18,19,23,
24,20,20,20,21,20,19,19,19,20,20,19, 20,20,20,19,20,19,19,20,22,20,20,18, 20,20,21,20,19,19,20,20,21,20,19,19,
20,20,18,20,20,19,19,20,20,20,20,19, 20,21,20,20,23,21,19,21,21,21,20,20, 19,20,20,18,20,19,20,16,17,16,20,17,
20,21,20,20,19)
```

Convert age to a factor

```
age_factor <- as.factor(age)
```

Create a data frame

```
data <- data.frame(age_factor)
```

Generate a rainbow color palette with the number of unique levels

```
colors <- rainbow(length(unique(age_factor)))
```

Plot using ggplot2

```
ggplot(data) + geom_bar(aes(x = age_factor), fill = colors, color = "black") + labs(title = "Age of students",
x = "Levels", y = "Count")
```

```
#School Demographics # Create a vector with multiple elements school <- c(Survey$School) school
```

Assuming Survey is a data frame containing a column named "School"

```
school <- as.character(Survey$School)
```

Define a function to transform elements

```
merge_school <- function(school) { # Use gsub to replace patterns school <- gsub("Iloilo Science and
Technology University|ISAT U|ISATU|ISAT-U|ILOILO SCIENCE AND TECHNOLOGY UNIVER-
SITY|Iloilo Science and Technology University \\\(ISATU\\\\)|Iloilo Science and Technology University po|Iloilo
Science and Technology University - Main Campus", "ISAT-U", school) school <- gsub("Iloilo Doctors
```

```
College|ILOILO DOCTORS COLLEGE|Iloilo Doctors College of Dentistry|Iloilo Doctors' College", "IDC",
school) school <- gsub("PHINMA UI|PHINMA UNIVERSITY OF ILOILO|PHINMA-University of
Iloilo|PHINMA-UNIVERSITY OF ILOILO|Ui|University of Iloilo", "UI", school) school <- gsub("ILOILO
NHS|Iloilo National High School", "INHS", school) school <- gsub("West Visayas State University -
Janiuay Campus|WVSU lambunao campus|WEST VISAYAS STATE UNIVERSITY LC|WEST VISAYAS
STATE UNIVERSITY COLLEGE OF AGRICULTURE AND FORESTRY|WEST VISAYAS STATE
UNIVERSITY \ (LAMBUNAO CAMPUS\)|West Viasayas State University|WVSU College of Agriculture
and Forestry|WEST VISAYAS STATE UNIVERSITY (LAMBUNAO CAMPUS)|West Visayas State
University College of Agriculture and Forestry|West Visayas State University|West Visayas State University",
"WVSU", school) school <- gsub("St. Paul University Iloilo|St. Paul's University Iloilo|SPUI", "SPUI", school)
school <- gsub("University of San Agustin|UNIVERSITY OF SAN AGUSTIN", "USA", school) school <-
gsub("Cebu Institute of Technology - University|National University|Western Institute of Technology|Iloilo
State University of Fisheries Science and Technology San Enrique Campus|John B. Lacson Foundation
Maritime University Molo-Inc.|Iloilo City Community College|Aklan State University|Western Institute of
technology|Central Philippine University|CPU,|CSCJ", "Others", school) return(school) }
```

Assuming Survey is a data frame containing a column named “School”

Convert school column to character if it is not

```
school <- as.character(Survey$School)
```

Apply the function to the vector

```
merged_school <- merge_school(school)
```

Print the result

```
print(merged_school)
```

Write the transformed data to a CSV file

```
csv_file <- "School_final.csv" write.csv(data.frame(School = merged_school), file = csv_file, row.names =
FALSE)
```

Read the CSV file

```
School_final <- read.csv("School_final.csv")
```

Create a table of the transformed school data

```
school_data <- table(School_final$School)
```

Calculate percentages

```
percentages <- round((school_data / sum(school_data)) * 100, 1)
```

Plot a pie chart

```
pie(school_data, main = "School", col = rainbow(length(school_data)), labels = paste("", format(percentages,
nsmall = 1, digits = 2), "%"), cex = 0.4 )
```

Add a legend

```
legend_labels <- paste(names(school_data), "") legend("topleft", legend = legend_labels, bty = "n", cex =
0.8, fill = rainbow(length(school_data)))
```

```
#Gender Demographics gender_data <- table(Survey$Gender) gender_data
```

```
gender<-c("Male", "Female") percentages <- round((gender_data / sum(gender_data)) * 100, 1)
```

```
pie(gender_data, main = "Gender", col = rainbow(length(gender_data)), labels = paste("", for-
mat(percentages, nsmall = 1, digits = 2), "%"), cex = 0.6, ) legend_labels <- paste(names(gender_data),"")
legend("bottomright", legend = legend_labels, bty = "n", cex = 0.8, fill = rainbow(length(gender_data)))
```

```
""
```