Tables

# PART ONE: Summary Tables

Create the functions:

*# Function to calculate the total, percentage of total, and percentage of variation users*  
calculate\_values <- **function**(filter\_condition, variation, total\_variation\_users) {  
 total <- **sum**(data[filter\_condition, variation])  
 percentage\_of\_total <- (total **/** **sum**(data[[variation]])) **\*** 100  
 user\_percentage <- (**nrow**(data[filter\_condition **&** data[[variation]] **>** 0, ]) **/** total\_variation\_users) **\*** 100  
 **return**(**c**(total, **round**(percentage\_of\_total, 2), **round**(user\_percentage, 2)))  
}  
  
*# Create a summary table for a given language variation*  
create\_summary\_table <- **function**(variation) {  
   
 *# Calculate the total number of unique users for this variation*  
 total\_variation\_users <- **nrow**(data[data[[variation]] **>** 0, ])  
   
 *# Gender and age*  
 women\_under\_75 <- **calculate\_values**((data**$**Gender.age **==** 'female under 75'), variation, total\_variation\_users)  
 women\_75\_plus <- **calculate\_values**((data**$**Gender.age **==** 'female 75 plus'), variation, total\_variation\_users)  
 men <- **calculate\_values**((data**$**Gender.age **==** 'male'), variation, total\_variation\_users)  
   
 *# Area*  
 east <- **calculate\_values**((data**$**Area **==** 'East'), variation, total\_variation\_users)  
 west <- **calculate\_values**((data**$**Area **==** 'West'), variation, total\_variation\_users)  
 poland <- **calculate\_values**((data**$**Area **==** 'Poland'), variation, total\_variation\_users)  
   
 *# Interview Length*  
 length\_1 <- **calculate\_values**((data**$**Length **==** 1), variation, total\_variation\_users)  
 length\_2 <- **calculate\_values**((data**$**Length **==** 2), variation, total\_variation\_users)  
 length\_3 <- **calculate\_values**((data**$**Length **==** 3), variation, total\_variation\_users)  
 length\_4 <- **calculate\_values**((data**$**Length **==** 4), variation, total\_variation\_users)  
   
 *# Creating the table*  
 table <- **data.frame**(  
 Variable = **c**('Women < 75', 'Women 75+', 'Men', 'East', 'West', 'Poland', 'Length 1', 'Length 2', 'Length 3', 'Length 4'),  
 Total = **c**(women\_under\_75[1], women\_75\_plus[1], men[1], east[1], west[1], poland[1], length\_1[1], length\_2[1], length\_3[1], length\_4[1]),  
 Percentage\_of\_Total = **c**(women\_under\_75[2], women\_75\_plus[2], men[2], east[2], west[2], poland[2], length\_1[2], length\_2[2], length\_3[2], length\_4[2]),  
 Percentage\_of\_Variation\_Users = **c**(women\_under\_75[3], women\_75\_plus[3], men[3], east[3], west[3], poland[3], length\_1[3], length\_2[3], length\_3[3], length\_4[3])  
 )  
   
 **return**(table)  
}

1.Person Accusative Plural:

data= PerAccPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B5", "C5", "D5", "E5"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 2 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 1 50 50  
## 5 West 1 50 50  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 50 50  
## 9 Length 3 1 50 50  
## 10 Length 4 0 0 0  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 2 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 2 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 2 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 1 50 50  
## 8 Length 2 0 0 0  
## 9 Length 3 1 50 50  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 3 15.79 23.08  
## 2 Women 75+ 14 73.68 61.54  
## 3 Men 2 10.53 15.38  
## 4 East 2 10.53 15.38  
## 5 West 14 73.68 61.54  
## 6 Poland 3 15.79 23.08  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 4 21.05 30.77  
## 9 Length 3 5 26.32 38.46  
## 10 Length 4 10 52.63 30.77

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B5 = summary\_tables[[1]],  
 C5 = summary\_tables[[2]],  
 D5 = summary\_tables[[3]],  
 E5 = summary\_tables[[4]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/1.summary\_PerAccPlu.xlsx")

2.Person ADMN:

data= PerADMN.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B8", "C8", "D8"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 2 40 33.33  
## 2 Women 75+ 2 40 33.33  
## 3 Men 1 20 33.33  
## 4 East 0 0 0.00  
## 5 West 5 100 100.00  
## 6 Poland 0 0 0.00  
## 7 Length 1 0 0 0.00  
## 8 Length 2 2 40 33.33  
## 9 Length 3 1 20 33.33  
## 10 Length 4 2 40 33.33  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 1 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 3 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 3 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 3 100 100  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B8 = summary\_tables[[1]],  
 C8 = summary\_tables[[2]],  
 D8 = summary\_tables[[3]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/2.summary\_PerADMN.xlsx")

3.Person dative plural:

data= PerDatPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B11", "C11", "D11"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 5 45.45 37.5  
## 2 Women 75+ 3 27.27 25.0  
## 3 Men 3 27.27 37.5  
## 4 East 7 63.64 50.0  
## 5 West 2 18.18 25.0  
## 6 Poland 2 18.18 25.0  
## 7 Length 1 0 0.00 0.0  
## 8 Length 2 3 27.27 25.0  
## 9 Length 3 3 27.27 37.5  
## 10 Length 4 5 45.45 37.5  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 1 100 100  
## 5 West 0 0 0  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 20 25  
## 2 Women 75+ 3 60 50  
## 3 Men 1 20 25  
## 4 East 1 20 25  
## 5 West 3 60 50  
## 6 Poland 1 20 25  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 40 50  
## 10 Length 4 3 60 50

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B11 = summary\_tables[[1]],  
 C11 = summary\_tables[[2]],  
 D11 = summary\_tables[[3]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/3.summary\_PerDatPlu.xlsx")

4.Person dative Singular:

data= PerDatSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B10", "C10"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 44.44 33.33  
## 2 Women 75+ 3 33.33 50.00  
## 3 Men 2 22.22 16.67  
## 4 East 7 77.78 66.67  
## 5 West 2 22.22 33.33  
## 6 Poland 0 0.00 0.00  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 4 44.44 33.33  
## 9 Length 3 0 0.00 0.00  
## 10 Length 4 5 55.56 66.67  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 3 75 50  
## 3 Men 1 25 50  
## 4 East 0 0 0  
## 5 West 4 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 0 0 0  
## 10 Length 4 4 100 100

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B10 = summary\_tables[[1]],  
 C10 = summary\_tables[[2]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/4.summary\_PerDatSin.xlsx")

5.Person Genitive plural:

data= PerGenPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B7", "C7", "D7","E7","F7","G7","H7","I7"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 5 15.62 25.00  
## 2 Women 75+ 13 40.62 37.50  
## 3 Men 14 43.75 37.50  
## 4 East 8 25.00 43.75  
## 5 West 22 68.75 50.00  
## 6 Poland 2 6.25 6.25  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 7 21.88 31.25  
## 9 Length 3 16 50.00 37.50  
## 10 Length 4 9 28.12 31.25  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 50 50  
## 2 Women 75+ 1 50 50  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 18 39.13 36.84  
## 2 Women 75+ 14 30.43 31.58  
## 3 Men 14 30.43 31.58  
## 4 East 5 10.87 21.05  
## 5 West 18 39.13 47.37  
## 6 Poland 23 50.00 31.58  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 16 34.78 36.84  
## 9 Length 3 17 36.96 36.84  
## 10 Length 4 13 28.26 26.32  
##   
## [[5]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 2 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 100 100  
## 10 Length 4 0 0 0  
##   
## [[6]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 11.11 14.29  
## 2 Women 75+ 7 77.78 71.43  
## 3 Men 1 11.11 14.29  
## 4 East 3 33.33 42.86  
## 5 West 5 55.56 42.86  
## 6 Poland 1 11.11 14.29  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 0 0.00 0.00  
## 9 Length 3 6 66.67 57.14  
## 10 Length 4 3 33.33 42.86  
##   
## [[7]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 2 40 50  
## 2 Women 75+ 0 0 0  
## 3 Men 3 60 50  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 5 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 5 100 100  
## 10 Length 4 0 0 0  
##   
## [[8]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B7 = summary\_tables[[1]],  
 C7 = summary\_tables[[2]],  
 D7 = summary\_tables[[3]],  
 E7 = summary\_tables[[4]],  
 F7 = summary\_tables[[5]],  
 G7 = summary\_tables[[6]],  
 H7 = summary\_tables[[7]],  
 I7 = summary\_tables[[8]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/5.summary\_PerGenPlu.xlsx")

6.Person Nominative Plural:

data= PerNomPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B3", "C3", "D3", "E3"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 51 38.06 29.63  
## 2 Women 75+ 40 29.85 33.33  
## 3 Men 43 32.09 37.04  
## 4 East 10 7.46 11.11  
## 5 West 46 34.33 48.15  
## 6 Poland 78 58.21 40.74  
## 7 Length 1 3 2.24 7.41  
## 8 Length 2 9 6.72 18.52  
## 9 Length 3 93 69.40 51.85  
## 10 Length 4 29 21.64 22.22  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 1 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 NaN NaN  
## 2 Women 75+ 0 NaN NaN  
## 3 Men 0 NaN NaN  
## 4 East 0 NaN NaN  
## 5 West 0 NaN NaN  
## 6 Poland 0 NaN NaN  
## 7 Length 1 0 NaN NaN  
## 8 Length 2 0 NaN NaN  
## 9 Length 3 0 NaN NaN  
## 10 Length 4 0 NaN NaN

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B3 = summary\_tables[[1]],  
 C3 = summary\_tables[[2]],  
 D3 = summary\_tables[[3]],  
 E3 = summary\_tables[[4]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/6.summary\_PerNomPlu.xlsx")

7.Person Nominative Singular:

data= PerNomSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B2", "C2", "D2"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 24 32.00 39.13  
## 2 Women 75+ 34 45.33 43.48  
## 3 Men 17 22.67 17.39  
## 4 East 21 28.00 30.43  
## 5 West 33 44.00 43.48  
## 6 Poland 21 28.00 26.09  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 11 14.67 21.74  
## 9 Length 3 35 46.67 56.52  
## 10 Length 4 29 38.67 21.74  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 NaN NaN  
## 2 Women 75+ 0 NaN NaN  
## 3 Men 0 NaN NaN  
## 4 East 0 NaN NaN  
## 5 West 0 NaN NaN  
## 6 Poland 0 NaN NaN  
## 7 Length 1 0 NaN NaN  
## 8 Length 2 0 NaN NaN  
## 9 Length 3 0 NaN NaN  
## 10 Length 4 0 NaN NaN

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B2 = summary\_tables[[1]],  
 C2 = summary\_tables[[2]],  
 D2 = summary\_tables[[3]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/7.summary\_PerNomSin.xlsx")

8.Year Accusative Plural:

data= YrAccPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B5", "C5"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 5 83.33 50  
## 2 Women 75+ 0 0.00 0  
## 3 Men 1 16.67 50  
## 4 East 5 83.33 50  
## 5 West 1 16.67 50  
## 6 Poland 0 0.00 0  
## 7 Length 1 0 0.00 0  
## 8 Length 2 5 83.33 50  
## 9 Length 3 1 16.67 50  
## 10 Length 4 0 0.00 0  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 1 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 0 0 0  
## 10 Length 4 1 100 100

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B5 = summary\_tables[[1]],  
 C5 = summary\_tables[[2]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/8.summary\_YrAccPlu.xlsx")

9.Year Accusative Singular:

data= YrAccSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B4", "C4","D4","E4"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 33.33 33.33  
## 2 Women 75+ 4 33.33 44.44  
## 3 Men 4 33.33 22.22  
## 4 East 4 33.33 33.33  
## 5 West 7 58.33 55.56  
## 6 Poland 1 8.33 11.11  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 7 58.33 44.44  
## 9 Length 3 3 25.00 33.33  
## 10 Length 4 2 16.67 22.22  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B4 = summary\_tables[[1]],  
 C4 = summary\_tables[[2]],  
 D4 = summary\_tables[[3]],  
 E4 = summary\_tables[[4]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/9.summary\_YrAccSin.xlsx")

10.Year ADMN:

data= YrADMN.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B8", "C8","D8"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 3 23.08 22.22  
## 2 Women 75+ 10 76.92 77.78  
## 3 Men 0 0.00 0.00  
## 4 East 12 92.31 88.89  
## 5 West 1 7.69 11.11  
## 6 Poland 0 0.00 0.00  
## 7 Length 1 1 7.69 11.11  
## 8 Length 2 4 30.77 33.33  
## 9 Length 3 3 23.08 22.22  
## 10 Length 4 5 38.46 33.33  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 12.5 25  
## 2 Women 75+ 3 37.5 25  
## 3 Men 4 50.0 50  
## 4 East 0 0.0 0  
## 5 West 7 87.5 75  
## 6 Poland 1 12.5 25  
## 7 Length 1 1 12.5 25  
## 8 Length 2 1 12.5 25  
## 9 Length 3 3 37.5 25  
## 10 Length 4 3 37.5 25

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B8 = summary\_tables[[1]],  
 C8 = summary\_tables[[2]],  
 D8 = summary\_tables[[3]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/10.summary\_YrADMN.xlsx")

11.Year Genetive Plural:

data= YrGenPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B7", "C7","D7","E7","F7","G7"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 31 49.21 33.33  
## 2 Women 75+ 21 33.33 33.33  
## 3 Men 11 17.46 33.33  
## 4 East 51 80.95 76.19  
## 5 West 10 15.87 14.29  
## 6 Poland 2 3.17 9.52  
## 7 Length 1 4 6.35 9.52  
## 8 Length 2 37 58.73 52.38  
## 9 Length 3 5 7.94 23.81  
## 10 Length 4 17 26.98 14.29  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 13 27.66 25  
## 2 Women 75+ 27 57.45 55  
## 3 Men 7 14.89 20  
## 4 East 17 36.17 35  
## 5 West 19 40.43 45  
## 6 Poland 11 23.40 20  
## 7 Length 1 1 2.13 5  
## 8 Length 2 6 12.77 15  
## 9 Length 3 22 46.81 45  
## 10 Length 4 18 38.30 35  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 20 33.33  
## 2 Women 75+ 4 80 66.67  
## 3 Men 0 0 0.00  
## 4 East 0 0 0.00  
## 5 West 5 100 100.00  
## 6 Poland 0 0 0.00  
## 7 Length 1 0 0 0.00  
## 8 Length 2 1 20 33.33  
## 9 Length 3 1 20 33.33  
## 10 Length 4 3 60 33.33  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 25 50  
## 2 Women 75+ 3 75 50  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 4 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 25 50  
## 9 Length 3 0 0 0  
## 10 Length 4 3 75 50  
##   
## [[5]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 50.0 40  
## 2 Women 75+ 3 37.5 40  
## 3 Men 1 12.5 20  
## 4 East 0 0.0 0  
## 5 West 8 100.0 100  
## 6 Poland 0 0.0 0  
## 7 Length 1 1 12.5 20  
## 8 Length 2 3 37.5 20  
## 9 Length 3 2 25.0 40  
## 10 Length 4 2 25.0 20  
##   
## [[6]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 28 22.95 21.88  
## 2 Women 75+ 34 27.87 40.62  
## 3 Men 60 49.18 37.50  
## 4 East 11 9.02 15.62  
## 5 West 34 27.87 40.62  
## 6 Poland 77 63.11 43.75  
## 7 Length 1 15 12.30 18.75  
## 8 Length 2 19 15.57 18.75  
## 9 Length 3 73 59.84 40.62  
## 10 Length 4 15 12.30 21.88

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B7 = summary\_tables[[1]],  
 C7 = summary\_tables[[2]],  
 D7 = summary\_tables[[3]],  
 E7 = summary\_tables[[4]],  
 F7 = summary\_tables[[5]],  
 G7 = summary\_tables[[6]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/11.summary\_YrGenPlu.xlsx")

12.Year Genetive Singular:

data= YrGenSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B6", "C6","D6","E6","F6","G6"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 19 19.39 23.33  
## 2 Women 75+ 52 53.06 53.33  
## 3 Men 27 27.55 23.33  
## 4 East 19 19.39 36.67  
## 5 West 66 67.35 46.67  
## 6 Poland 13 13.27 16.67  
## 7 Length 1 3 3.06 10.00  
## 8 Length 2 24 24.49 30.00  
## 9 Length 3 47 47.96 36.67  
## 10 Length 4 24 24.49 23.33  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 2 28.57 28.57  
## 2 Women 75+ 2 28.57 28.57  
## 3 Men 3 42.86 42.86  
## 4 East 6 85.71 85.71  
## 5 West 1 14.29 14.29  
## 6 Poland 0 0.00 0.00  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 4 57.14 57.14  
## 9 Length 3 1 14.29 14.29  
## 10 Length 4 2 28.57 28.57  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 25.00 37.5  
## 2 Women 75+ 0 0.00 0.0  
## 3 Men 12 75.00 62.5  
## 4 East 1 6.25 12.5  
## 5 West 0 0.00 0.0  
## 6 Poland 15 93.75 87.5  
## 7 Length 1 4 25.00 37.5  
## 8 Length 2 2 12.50 12.5  
## 9 Length 3 9 56.25 37.5  
## 10 Length 4 1 6.25 12.5  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 1 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 0 0 0  
## 10 Length 4 1 100 100  
##   
## [[5]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[6]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 2 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 100 100  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B6 = summary\_tables[[1]],  
 C6 = summary\_tables[[2]],  
 D6 = summary\_tables[[3]],  
 E6 = summary\_tables[[4]],  
 F6 = summary\_tables[[5]],  
 G6 = summary\_tables[[6]])  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/12.summary\_YrGenSin.xlsx")

13.Year Ins Plural:

data= YrINSPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B10", "C10","D10"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 1 100 100  
## 5 West 0 0 0  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 NaN NaN  
## 2 Women 75+ 0 NaN NaN  
## 3 Men 0 NaN NaN  
## 4 East 0 NaN NaN  
## 5 West 0 NaN NaN  
## 6 Poland 0 NaN NaN  
## 7 Length 1 0 NaN NaN  
## 8 Length 2 0 NaN NaN  
## 9 Length 3 0 NaN NaN  
## 10 Length 4 0 NaN NaN  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 1 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B10 = summary\_tables[[1]],  
 C10 = summary\_tables[[2]],  
 D10 = summary\_tables[[3]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/13.summary\_YrInsPlu.xlsx")

14.Year Locative Plural:

data= YrLocPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B12", "C12","D12","E12"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 1 100 100  
## 5 West 0 0 0  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 100 100  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 40 28.57  
## 2 Women 75+ 3 30 42.86  
## 3 Men 3 30 28.57  
## 4 East 2 20 28.57  
## 5 West 8 80 71.43  
## 6 Poland 0 0 0.00  
## 7 Length 1 0 0 0.00  
## 8 Length 2 1 10 14.29  
## 9 Length 3 7 70 57.14  
## 10 Length 4 2 20 28.57  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 50 50  
## 2 Women 75+ 0 0 0  
## 3 Men 1 50 50  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 1 50 50  
## 9 Length 3 1 50 50  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 1 100 100  
## 5 West 0 0 0  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 0 0 0  
## 10 Length 4 1 100 100

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B12 = summary\_tables[[1]],  
 C12 = summary\_tables[[2]],  
 D12 = summary\_tables[[3]],  
 E12 = summary\_tables[[4]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/14.summary\_YrLocPlu.xlsx")

15.Year Locative Singular:

data= YrLocSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B11", "C11","D11","E11","F11", "G11","H11","I11"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 3 75 75  
## 3 Men 1 25 25  
## 4 East 1 25 25  
## 5 West 2 50 50  
## 6 Poland 1 25 25  
## 7 Length 1 1 25 25  
## 8 Length 2 0 0 0  
## 9 Length 3 3 75 75  
## 10 Length 4 0 0 0  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 6 12.77 22.22  
## 2 Women 75+ 18 38.30 44.44  
## 3 Men 23 48.94 33.33  
## 4 East 21 44.68 55.56  
## 5 West 26 55.32 44.44  
## 6 Poland 0 0.00 0.00  
## 7 Length 1 1 2.13 5.56  
## 8 Length 2 17 36.17 33.33  
## 9 Length 3 12 25.53 27.78  
## 10 Length 4 17 36.17 33.33  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 2 100 100  
## 4 East 0 0 0  
## 5 West 2 100 100  
## 6 Poland 0 0 0  
## 7 Length 1 0 0 0  
## 8 Length 2 1 50 50  
## 9 Length 3 1 50 50  
## 10 Length 4 0 0 0  
##   
## [[4]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 7 100 100  
## 2 Women 75+ 0 0 0  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 7 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 7 100 100  
## 10 Length 4 0 0 0  
##   
## [[5]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 1 5.26 12.5  
## 2 Women 75+ 6 31.58 37.5  
## 3 Men 12 63.16 50.0  
## 4 East 0 0.00 0.0  
## 5 West 0 0.00 0.0  
## 6 Poland 19 100.00 100.0  
## 7 Length 1 2 10.53 25.0  
## 8 Length 2 3 15.79 25.0  
## 9 Length 3 14 73.68 50.0  
## 10 Length 4 0 0.00 0.0  
##   
## [[6]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 1 100 100  
## 3 Men 0 0 0  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[7]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 1 100 100  
## 10 Length 4 0 0 0  
##   
## [[8]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 1 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 1 100 100  
## 7 Length 1 1 100 100  
## 8 Length 2 0 0 0  
## 9 Length 3 0 0 0  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B11 = summary\_tables[[1]],  
 C11 = summary\_tables[[2]],  
 D11 = summary\_tables[[3]],  
 E11 = summary\_tables[[4]],  
 F11 = summary\_tables[[5]],  
 G11 = summary\_tables[[6]],  
 H11 = summary\_tables[[7]],  
 I11 = summary\_tables[[8]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/15.summary\_YrLocSin.xlsx")

16.Year Nominative Plural:

data= YrNomPlu.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B3", "C3","D3"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 3 75 66.67  
## 2 Women 75+ 1 25 33.33  
## 3 Men 0 0 0.00  
## 4 East 3 75 66.67  
## 5 West 1 25 33.33  
## 6 Poland 0 0 0.00  
## 7 Length 1 0 0 0.00  
## 8 Length 2 4 100 100.00  
## 9 Length 3 0 0 0.00  
## 10 Length 4 0 0 0.00  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 4 44.44 33.33  
## 2 Women 75+ 4 44.44 50.00  
## 3 Men 1 11.11 16.67  
## 4 East 1 11.11 16.67  
## 5 West 8 88.89 83.33  
## 6 Poland 0 0.00 0.00  
## 7 Length 1 0 0.00 0.00  
## 8 Length 2 2 22.22 33.33  
## 9 Length 3 6 66.67 50.00  
## 10 Length 4 1 11.11 16.67  
##   
## [[3]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 0 0 0  
## 2 Women 75+ 0 0 0  
## 3 Men 2 100 100  
## 4 East 0 0 0  
## 5 West 0 0 0  
## 6 Poland 2 100 100  
## 7 Length 1 0 0 0  
## 8 Length 2 0 0 0  
## 9 Length 3 2 100 100  
## 10 Length 4 0 0 0

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B3 = summary\_tables[[1]],  
 C3 = summary\_tables[[2]],  
 D3 = summary\_tables[[3]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/16.summary\_YrNomPlu.xlsx")

17.Year Nominative Singular:

data= YrNomSin.wide  
   
*# Create a summary table for each language variation*  
summary\_tables <- **lapply**(**c**("B2", "C2"), create\_summary\_table)  
  
*# Print the summary tables*  
summary\_tables

## [[1]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 9 22.5 17.39  
## 2 Women 75+ 22 55.0 56.52  
## 3 Men 9 22.5 26.09  
## 4 East 22 55.0 52.17  
## 5 West 16 40.0 39.13  
## 6 Poland 2 5.0 8.70  
## 7 Length 1 2 5.0 4.35  
## 8 Length 2 16 40.0 34.78  
## 9 Length 3 8 20.0 26.09  
## 10 Length 4 14 35.0 34.78  
##   
## [[2]]  
## Variable Total Percentage\_of\_Total Percentage\_of\_Variation\_Users  
## 1 Women < 75 2 25.0 33.33  
## 2 Women 75+ 0 0.0 0.00  
## 3 Men 6 75.0 66.67  
## 4 East 0 0.0 0.00  
## 5 West 1 12.5 33.33  
## 6 Poland 7 87.5 66.67  
## 7 Length 1 0 0.0 0.00  
## 8 Length 2 3 37.5 66.67  
## 9 Length 3 5 62.5 33.33  
## 10 Length 4 0 0.0 0.00

*# Create a list of tables with named elements (the names will be used as sheet names)*  
tables\_list <- **list**(  
 B2 = summary\_tables[[1]],  
 C2 = summary\_tables[[2]]  
)  
  
*# Write the tables to an Excel file*  
**write\_xlsx**(tables\_list, "C:/Users/cs1gac/Desktop/17.summary\_YrNomSin.xlsx")

# PART TWO: Response Table

Define the function

process\_dataset <- **function**(data) {  
   
 *# No of speakers using cell in conversation*  
 speakers\_using\_cell <- **sum**(data**$**tot.occ **!=** 0)  
   
 *# Maximum no of usages of cell by an individual speaker*  
 max\_usages <- **max**(data**$**tot.occ)  
   
 *# No of speaker using cell more than once*  
 speakers\_using\_cell\_more\_than\_once <- **sum**(data**$**tot.occ **>** 1)  
   
 *# No of forms produced by speakers*  
 start\_col <- **which**(**names**(data) **==** "Gender.age")  
 end\_col <- **which**(**names**(data) **==** "tot.occ")  
 num\_forms\_produced <- end\_col **-** start\_col **-** 1  
   
 *# No of Speakers using multiple forms*  
 speakers\_using\_multiple\_forms <- **sum**(data**$**tot.form **>** 1)  
   
 *# Maximum number of forms used by an individual speaker*  
 max\_forms\_by\_individual <- **max**(data**$**tot.form)  
   
 **return**(**c**(speakers\_using\_cell, max\_usages, speakers\_using\_cell\_more\_than\_once, num\_forms\_produced,   
 speakers\_using\_multiple\_forms, max\_forms\_by\_individual))  
}

1. Person Accusative Plural

*# Test the function with the first dataset*  
data <- PerAccPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 17 6 3 4 1 2

2.Person ADMN

data <- PerADMN.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 5 2 4 3 1 2

3.Person Dative Plural

data <- PerDatPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 12 2 5 3 1 2

4.Person Dative Singular

data <- PerDatSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 7 4 3 2 1 2

5.Person Genetive Plural

data <- PerGenPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 30 14 19 8 13 4

1. Person Nominative Singular

data <- PerNomSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 23 17 16 3 1 2

1. Person Nominative Plural

data <- PerNomPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 28 20 22 4 1 2

1. Year Accusative Plural

data <- YrAccPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 3 5 1 2 0 1

9.Year Accusative Singular

data <- YrAccSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 12 3 2 4 0 1

1. Year ADMN

data <- YrADMN.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 14 3 6 3 0 1

1. Year Genetive Plural

data <- YrGenPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 52 25 42 6 19 5

1. Year Genetive Singular

data <- YrGenSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 41 13 26 6 7 2

1. Year Ins Plural

data <- YrINSPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 2 1 0 3 0 1

1. Year Locative Pluarl

data <- YrLocPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 11 3 2 4 0 1

1. Year Locative Singular

data <- YrLocSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 30 13 13 8 5 3

1. Year Nominative Plural

data <- YrNomPlu.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 10 3 4 3 0 1

1. Year Nominaive Singular

data <- YrNomSin.wide  
result <- **process\_dataset**(data)  
**print**(result)

## [1] 25 6 12 2 1 2

*# Remove non-numeric columns if any (like IDs or labels)*  
data\_numeric <- data **%>%** **select\_if**(is.numeric)  
  
*# Scale the data*  
scaled\_data <- **scale**(data\_numeric)

*# Remove non-numeric columns if any (like IDs or labels)*  
data\_numeric <- data **%>%** **select\_if**(is.numeric)  
  
*# Scale the data*  
scaled\_data <- **scale**(data\_numeric)