A survey was conducted to investigate the relationship between age group and preferred smartphone operating system (OS). The data is stored in a CSV file named "smartphone_survey.csv" with columns "ParticipantID", "AgeGroup" (categorized as "18-24", "25-34", "35-44", "45+"), and "PreferredOS" ("Android", "iOS", "Other").

- Load the data into R and create a contingency table showing the counts of preferred smartphone OS for each age group. Be prepared to discuss the results.
- Perform a chi-square test for independence to determine if there is a significant association between age group and preferred smartphone OS. Use $\alpha = 0.05$. Be prepared to discuss the results.
- Create a stacked bar chart to visualize the proportion of preferred smartphone OS for each age group. Be prepared to discuss the results.