

Trip MPH Program Design

- I. Initialization
 - A. Write identification header to output file
 - B. Write table heading to output file
 - C. Set running totals to 0
 - D. Skip over header lines in input file

- II. Priming read
 - A. Read trip origin
 - B. Read trip destination
 - C. Read trip length in miles
 - D. Read hours and minutes for trip time

- III. While the last read succeeded repeat these steps:
 - A. Count this trip
 - B. Do the calculations relevant to this trip
 - i. Calculate the trip time in minutes
 - ii. Calculate the average MPH for this trip
 - C. Update the overall totals to include this trip
 - i. Add the trip time to the overall total time
 - ii. Add the trip mileage to the overall mileage
 - D. Write the data for this trip to the output file
 - i. Write the trip origin and destination
 - ii. Write the trip time in minutes
 - iii. Write the trip MPH
 - E. Skip the rest of the current input line
 - F. Repeat the priming read logic to read the next trip

- IV. Finish the output table
 - A. Write the delimiter for the bottom of the table
 - B. Write a blank line

- V. If the number of trips is 0:
 - A. Write a message to the output file stating that
 - B. Quit

- VI. Calculate the overall average MPH

- VII. Write the overall statistics to the output file
 - A. Write the number of trips
 - B. Write the total mileage
 - C. Write the overall average MPH
 - D. Write the overall time in HH:MM format

- VIII. Quit