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Analyze Divvy bike ride information using September trip data.
First select option 1 to read and clean the data.

Select a menu option:
   1. Select datafile, display rides totals and clean data
   2. Display overall trip information
   3. Display percentage of members vs. casual riders
   4. Display weekday vs weekend usage
   5. Extra Credit: find closest station
   6. Exit
Your choice --> 2
   First read in data by selecting menu option 1

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   6. Exit
Your choice --> 1
   Select datafile:
      1. Small subset of data with 14 rides to help create your program
      2. Week day vs weekend rides
      3. All September 2021 data (not tested in Zybooks)
   Your selection--> 1
   Total # of trips found in datafile:  13
   Total # of trips in clean data:  10

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Your choice --> 2


   Total # of miles traveled: 13
   Average length of trips in miles:  1.3

   Longest trip information below:
   -------------------------------
   Trip ID: B465E78B601DB5A8
   Trip start location: Broadway & Belmont Ave
   Trip end location: Broadway & Thorndale Ave
   Trip distance in miles: 3.5


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Your choice --> 3

   Casual Rider Percentage: 40.0%
   Member Rider Percentage: 60.0%


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   6. Exit
Your choice --> 4
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   Select type of display:
      1. Counts of rides per hour in the day
      2. Proportional 50 column graph with @ for weekday and + for weekend
   Your selection--> 1
   LargestNumberOfRides is: 3
   Rides per hour for weekday and weekend:
    0:      1      0
    1:      0      0
    2:      0      0
    3:      0      0
    4:      0      0
    5:      1      0
    6:      0      0
    7:      0      0
    8:      0      0
    9:      0      0
   10:      1      0
   11:      0      0
   12:      1      2
   13:      0      0
   14:      0      0
   15:      0      0
   16:      0      0
   17:      0      0
   18:      0      0
   19:      0      1
   20:      0      3
   21:      0      0
   22:      0      0
   23:      0      0

Select a menu option:
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   3. Display percentage of members vs. casual riders
   4. Display weekday vs weekend usage
   5. Extra Credit: find closest station
   6. Exit
Your choice --> 4
   Select type of display:
      1. Counts of rides per hour in the day
      2. Proportional 50 column graph with @ for weekday and + for weekend
   Your selection--> 2
    0: @@@@@@@@@@@@@@@@@

    1:

    2:

    3:

    4:

    5: @@@@@@@@@@@@@@@@@

    6:

    7:

    8:

    9:

   10: @@@@@@@@@@@@@@@@@

   11:

   12: @@@@@@@@@@@@@@@@@
       +++++++++++++++++++++++++++++++++
   13:
```

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   14:

   15:

   16:

   17:

   18:

   19:
       +++++++++++++++++
   20:
       ++++++++++++++++++++++++++++++++++++++++++++++++++
   21:

   22:

   23:



Select a menu option:
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   3. Display percentage of members vs. casual riders
   4. Display weekday vs weekend usage
   5. Extra Credit: find closest station
   6. Exit
Your choice --> 1
   Select datafile:
      1. Small subset of data with 14 rides to help create your program
      2. Week day vs weekend rides
      3. All September 2021 data (not tested in Zybooks)
   Your selection--> 2
   Total # of trips found in datafile:  25887
   Total # of trips in clean data:  21634

Select a menu option:
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   6. Exit
Your choice --> 2


   Total # of miles traveled: 29378
   Average length of trips in miles:  1.4

   Longest trip information below:
   -------------------------------
   Trip ID: ADD6EEF5F6743BE7
   Trip start location: Western Ave & Walton St
   Trip end location: Burnham Greenway & 105th St
   Trip distance in miles: 15.7


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   Casual Rider Percentage: 51.3%
   Member Rider Percentage: 48.7%
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   4. Display weekday vs weekend usage
   5. Extra Credit: find closest station
   6. Exit
Your choice --> 4
   Select type of display:
      1. Counts of rides per hour in the day
      2. Proportional 50 column graph with @ for weekday and + for weekend
   Your selection--> 1
   LargestNumberOfRides is: 1317
   Rides per hour for weekday and weekend:
    0:     66    324
    1:     26    245
    2:     18    122
    3:      7     55
    4:     16     36
    5:     86     42
    6:    301     70
    7:    565    144
    8:    556    275
    9:    382    437
   10:    311    671
   11:    402    770
   12:    495    915
   13:    428    852
   14:    436    819
   15:    602    881
   16:    845    876
   17:   1317    822
   18:   1093    751
   19:    821    611
   20:    533    461
   21:    442    376
   22:    305    477
   23:    174    375

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   6. Exit
Your choice --> 4
   Select type of display:
      1. Counts of rides per hour in the day
      2. Proportional 50 column graph with @ for weekday and + for weekend
   Your selection--> 2
    0: @@
       ++++++++++++
    1:
       +++++++++
    2:
       +++++
    3:
       ++
    4:
       +
    5: @@@
       +
    6: @@@@@@@@@@@
       ++
    7: @@@@@@@@@@@@@@@@@@@@@@
       +++++
    8: @@@@@@@@@@@@@@@@@@@@@@
       ++++++++++
    9: @@@@@@@@@@@@@@
```

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      ++++++++++++++++
   10: @@@@@@@@@@@
       ++++++++++++++++++++++++
   11: @@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++
   12: @@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++++++
   13: @@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++++
   14: @@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++
   15: @@@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++++++
   16: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++++
   17: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++++++
   18: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++++++++++
   19: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++++++
   20: @@@@@@@@@@@@@@@@@@@@@@@
       ++++++++++++++++
   21: @@@@@@@@@@@@@@@@
       ++++++++++++++
   22: @@@@@@@@@@@
       ++++++++++++++++
   23: @@@@@@
       ++++++++++++++
```

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   6. Exit
Your choice --> 5
   Input latitude and longitude of the home: 41.92839911055126 -87.64446979389763
   You entered: 41.9 for latitude and -87.6 for longitude
   Closest Divvy station is: Clark St & Wrightwood Ave at 41.92949383, -87.6433255, 0.1 miles
away.


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   6. Exit
Your choice --> 6
```