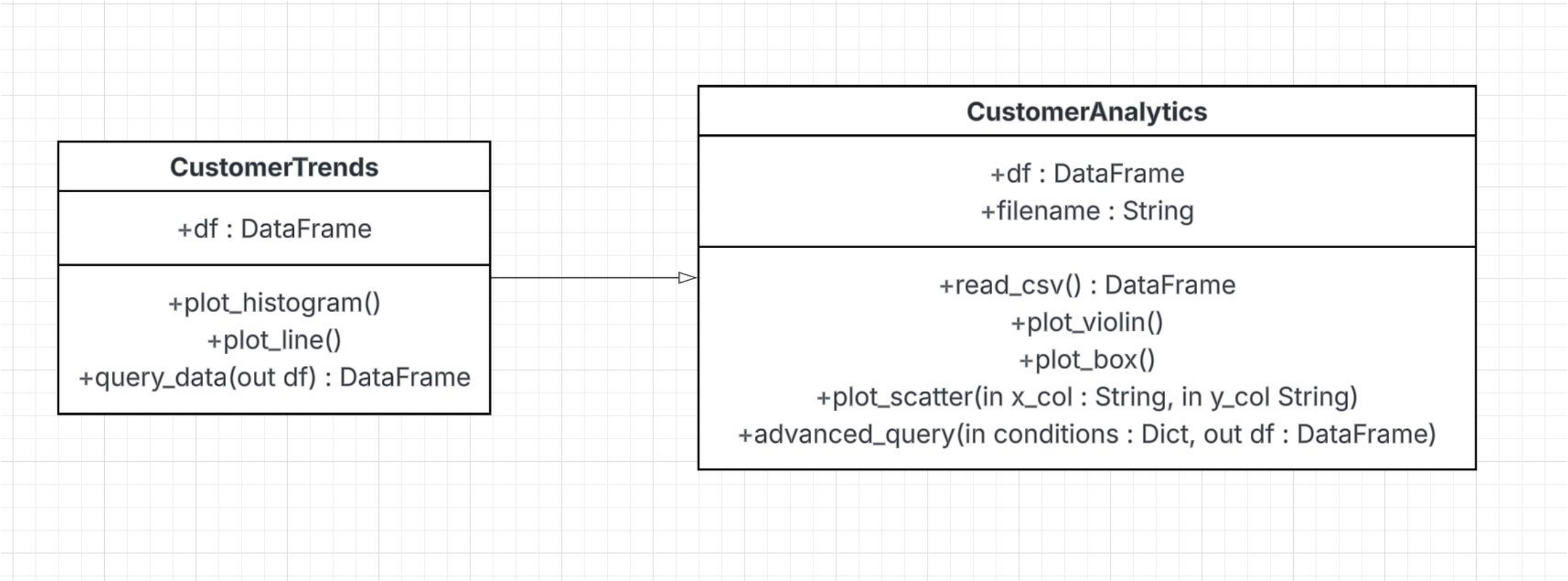
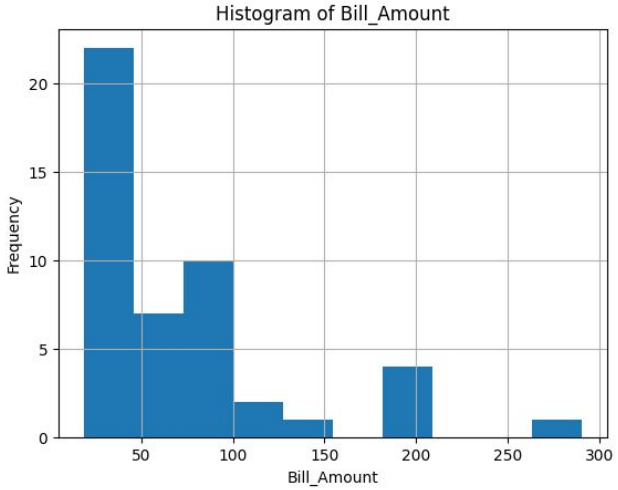
# Class diagrams

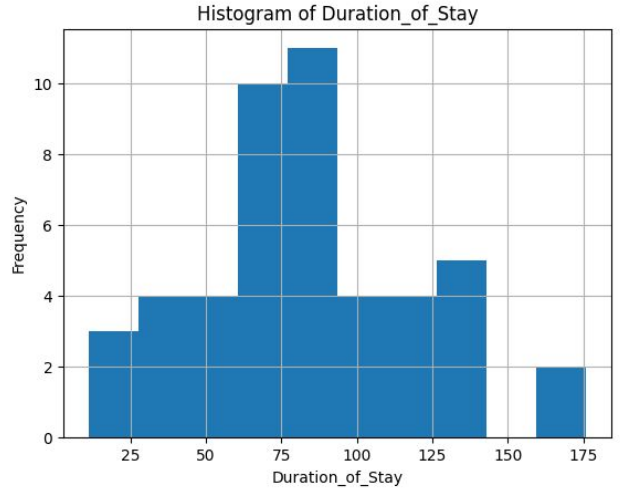


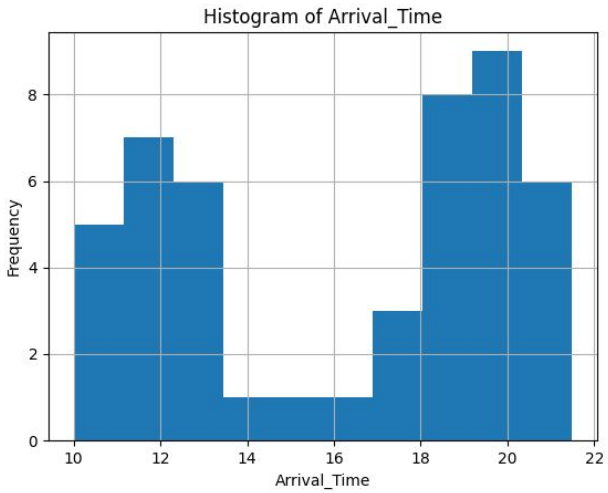
# Test Data

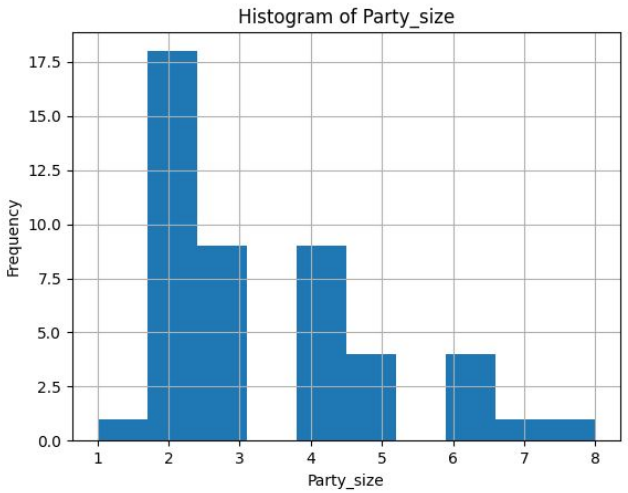
| Party size | Arrival Time | Duration of Stay | Bill Amount |
|---|---|---|---|
| 2 | 10 | 90 | $36.75 |
| 1 | 10 | 35 | 18.34 |
| 2 | 10.13 | 48 | 24.75 |
| 3 | 10.47 | 79 | 39.99 |
| 4 | 11 | 120 | 58.64 |
| 2 | 11.39 | 74 | 19.89 |
| 3 | 12 | 69 | 40.42 |
| 5 | 12 | 130 | 96.43 |
| 6 | 12.03 | 125 | 112.34 |
| 4 | 12.06 | 79 | 100.02 |
| 2 | 12.2 | 67 | 31.01 |
| 4 | 12.25 | 140 | 32.09 |
| 2 | 12.38 | 90 | 21.89 |
| 2 | 12.58 | 75 | 40.42 |
| 4 | 13 | 102 | 68.54 |
| 2 | 13.02 | 85 | 40.54 |
| 3 | 13.2 | 109 | 42.86 |
| 5 | 13.34 | 134 | 137.53 |
| 2 | 14.4 | 47 | 90.12 |
| 3 | 15.1 | 87 | 75.67 |
| 2 | 16.3 | 75 | 26.74 |
| 2 | 17 | 65 | 21.32 |
| 4 | 17.2 | 124 | 47.85 |
| 2 | 17.54 | 57 | 34.95 |
| 2 | 18.2 | 78 | 26.97 |
| 4 | 18.26 | 130 | 78.53 |
| 2 | 18.34 | 39 | 31.97 |
| 5 | 18.46 | 123 | 97.54 |
| 6 | 18.55 | 135 | 109.87 |
| 8 | 18.57 | 163 | 200.09 |
| 2 | 19.1 | 63 | 32.64 |
| 6 | 19.13 | 176 | 290.73 |
| 3 | 19.23 | 69 | 59.43 |
| 2 | 19.35 | 58 | 34.75 |
| 2 | 19.44 | 79 | 36.74 |
| 3 | 19.57 | 93 | 42.85 |
| 2 | 20.04 | 84 | 29.43 |
| 4 | 20.07 | 99 | 86.94 |
| 5 | 20.17 | 67 | 196.34 |
| 6 | 20.24 | 98 | 203.45 |
| 7 | 20.33 | 90 | 185.43 |
| 3 | 20.57 | 69 | 68.34 |
| 4 | 21.2 | 40 | 79.85 |
| 3 | 21.27 | 33 | 86.54 |
| 3 | 21.34 | 26 | 65.43 |
| 4 | 21.37 | 23 | 76.84 |
| 2 | 21.49 | 11 | 45.65 |

# Histograms output

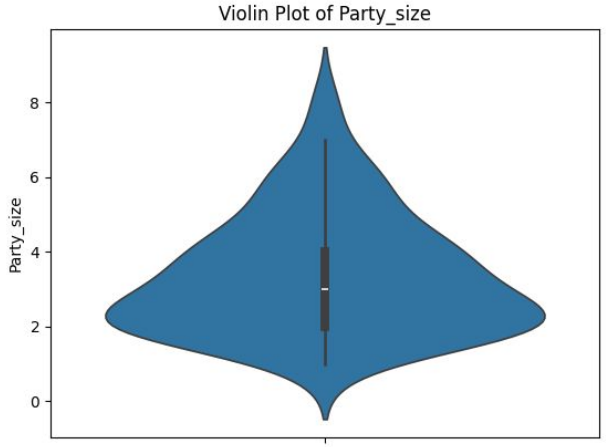


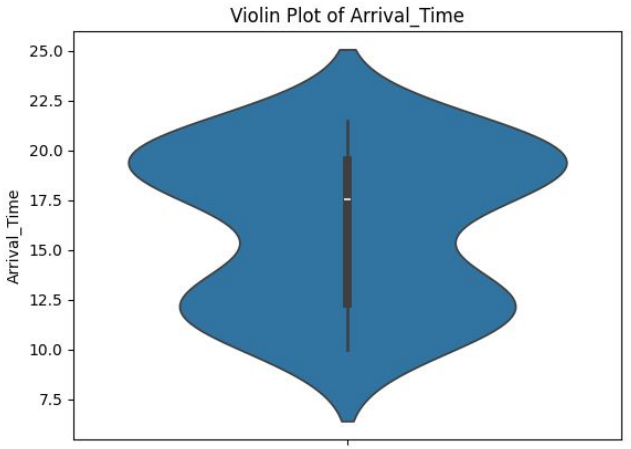



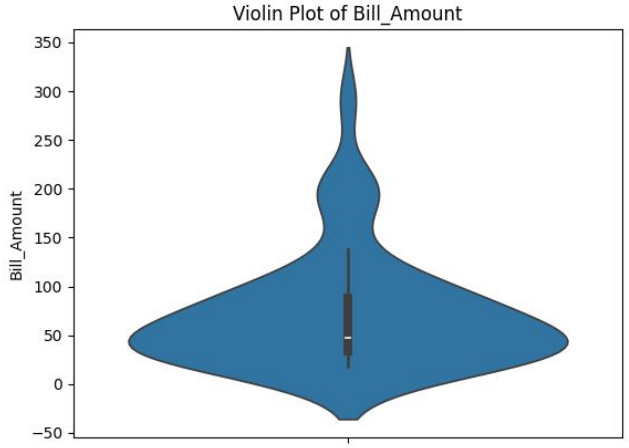



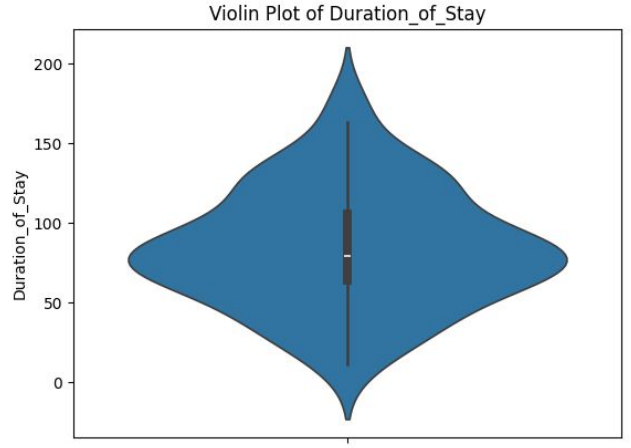



# Violin plots output

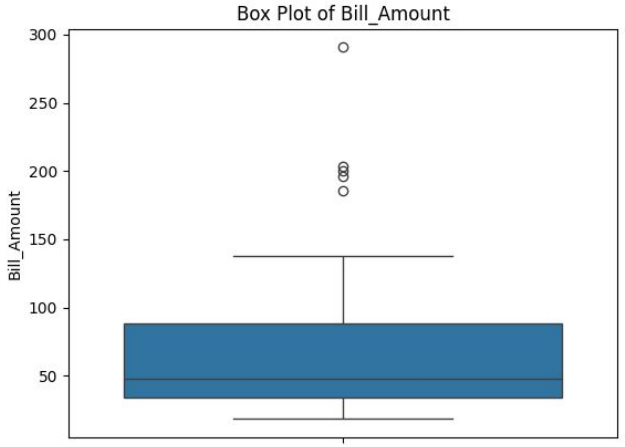


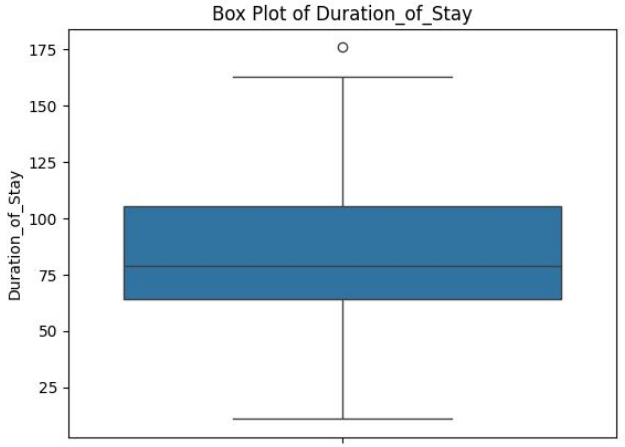



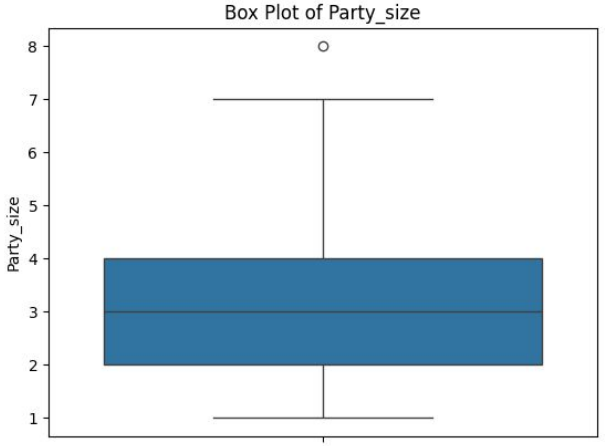



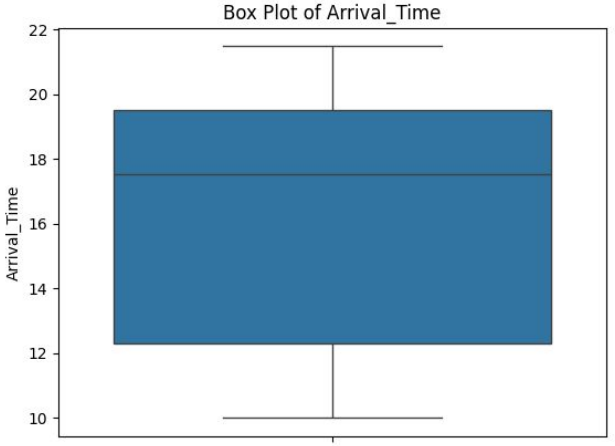



# Wisker-box plots output

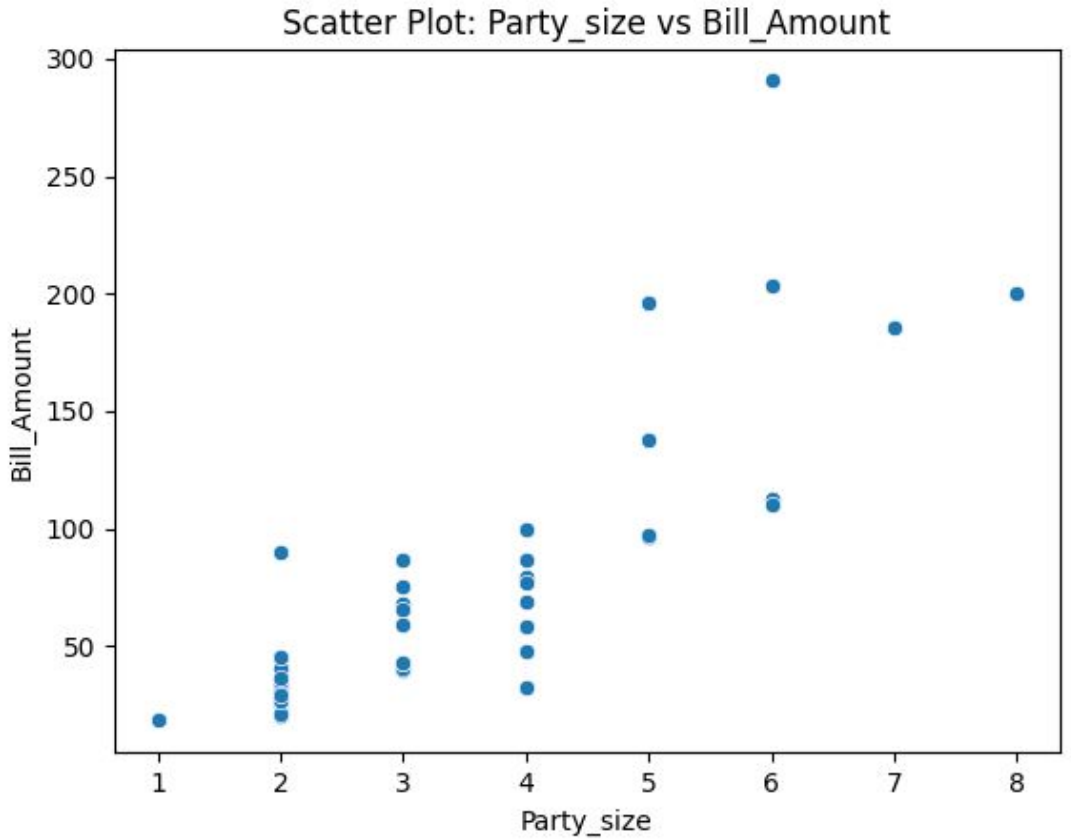


# Scatter Plot



# Log file

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# Task Progress report

| Date | Task Name | Status | Person |
|---|---|---|---|
| 04/9/2025 | Work on first parent/child classes | In progress | Elizabeth |
| 04/12/2025 | Work on first parent/child classes | In progress | Henry & Davidson |
| 04/13/2025 | Work on PA2 Report | Complete | Elizabeth |
| 04/12/2025 | Work on Main.py | In Progress | Henry & Davidson |
| 4/14/2025 | Class Diagram | Complete | Everyone |
| | | | |