# CSC8001 Assignment 2 – Marking Criteria

[100 Marks worth 30% overall]

|  |  |  |
| --- | --- | --- |
|  | /5 | Loading data |
|  | /30 | Exploring data |
|  | /20 | Weekday usage |
|  | /20 | Time of day usage |
|  | /25 | Workdays vs weekends |
|  | /100 | **TOTAL** |
| Comments: | | |

## Part A: Word Games [60 marks]

Part A has three supporting functions and five questions which call the supporting functions and then do additional processing as appropriate

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| --- | --- |
| **Marks Out of** | **Criteria** |
| /5 | A0: Loading data |
|  | Solution:   * Load the data set into a DataFrame called rides. * Set the starttime column as the index and remember to parse the dates. * Rename the usertype column to User Type |
| Exploring data [30 marks] | |
| /5 | A1: Most popular stations for all riders |
|  | Solution:   * Returns a Series object indexed by station names in descending order of popularity |
| /5 | A2: Most popular stations for Customers |
|  | Solution:   * Returns a Series object indexed by station names in descending order of popularity |
| /5 | A3: Visiting Central Park |
|  | Solution:   * returns a Series object indexed by station names in descending order of popularity |
| /5 | A4: Average trip duration for Subscribers |
|  | Solution:   * returnscorrect mean trip duration for Subscribers on any workday (Monday - Friday) – float to two decimals |
| /5 | A5: Longest trip duration for Subscribers |
|  | Solution:   * returnscorrect integer value |
| /5 | A6: Breakdown of rides by user type |
|  | Solution:   * Returnsa Series object indexed by the user type with the correct number of rides per user type. |
| Weekday usage [20 marks] | |
| /10 | A7: Weekday usage [10 marks] |
|  | Solution:   * Create a pandas DataFrame with the number of rides by User Type for each day of the week. * DataFramehas same column values and index as example. * Returns correct object type and value |
| /10 | A8: Plotting weekday rider usage [10 marks] |
|  | Solution:   * Plot shows weekday usage pattern by user type. * Includes plot line for ALL weekday rides. * Plot has appropriate labels for axes, title and legend |
| Time of day usage [20 marks] | |
| /10 | A9: Time of day usage [10 marks] |
|  | Solution:   * Create a pandas DataFrame with the number of rides by user typefor each hour of the day. * DataFrame has same column values and index as example. * Returns correct object type and value |
| /10 | A10: Plotting time of day usage [10 marks] |
|  | Solution:   * Plot shows time of day usage pattern by user type. * Includes plot line for ALL hourly rides. * Plot has appropriate labels for axes, title and legend |
| Workdays vs Weekends [25 marks] | |
| /15 | A11: Workdays vs Weekends usage [15 marks] |
|  | Solution:   * Create a pandas DataFrame with the number of rides by Hour and User Type for Workdays and Weekends. * DataFrame has same column values and index as example. * Returns correct object type and value |
| /10 | A10: Plotting Workdays vs Weekends usage [10 marks] |
|  | Solution:   * Plotsshownumber of rides by Hour and User Type. One pfor Workdays and one for Weekends.. * Includes plot line for ALL hourly rides. * Plots have appropriate labels for axes, title and legend |
|  | **TOTAL** |