## **EXERCISE 1: IMPORT JSON FILE**

| KEY OBJECTIVES   | AGENDA  |  |  |
|--|---|--|--|
| Extract data from a file and import the data into python environment | <ul><li>20 mins</li><li>1. Import json package</li><li>2. Open file with context manager</li><li>3. Implement appropriate json function</li></ul> |  |  |
| DELIVERABLE  | RESOURCES   |  |  |
| List of timestamps   | ga_hw_logins.json # data file     ison package documentation     stackoverflow example – 'loading-parsing-json-file- in-python'                   |  |  |

## **EXERCISE 2: CONVERT STRINGS TO DATETIME**

| KEY OBJECTIVES                        | AGENDA   |  |  |
|---------------------------------------|--|--|--|
| Convert strings into datetime objects | 10 mins  | <ol> <li>Import datetime package</li> <li>Build iterator (for loop)</li> <li>Implement appropriate date time function</li> </ol> |  |
| DELIVERABLE                           | RESOURCES  |  |  |
| List of datetime objects              | <ol> <li>Results from Exercise 1</li> <li>Stackoverflow example - 'converting-string-into-datetime'</li> <li>datetime package documentation</li> </ol> |  |  |

## **EXERCISE 3: CREATE SQLITE DATABASE**

| KEY OBJECTIVES   | AGENDA   |   |  |
|--|--|---|--|
| Use python to create sqlite3 database and load data into a table | 30 mins  | <ol> <li>Import sqlite package</li> <li>Create database file</li> <li>Open database connection</li> <li>Create new table</li> <li>Insert values into table</li> </ol> |  |
| DELIVERABLE  | RESOURCES  |   |  |
| Sqlite3 database with data table                                 | Results from Exercise 2     sqlite3 package documentation and examples |   |  |

## **EXERCISE 4.: EXECUTE SQLITE QUERY**

| KEY OBJECTIVES   | AGENDA   |   |  |
|--|--|---|--|
| Execute query using python to determine date and hour with most timestamps | 10 mins  | Write query     Use sqlite package to execute query |  |
| DELIVERABLE  | RESOURCES  |   |  |
| Peak date and hour   | Results from Exercise 3     sqlite3 package documentation and examples |   |  |