

**CONTINUOUS ASSESSMENT / ASSIGNMENT**

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| **Programme Title/Year:** | **BSc Computing in IT Y4** |
| **Module Title(s):** | **Data Visualization and Communication** |
| **Lecturer Name(s)** | **Sam Weiss** |
| **Assessment Title:** | **CA1** |
| **Assessment Type:** | **INDIVIDUAL** |
| **Assessment Weighting:** | **50%** |
| **Date Issued:** | **Monday 9th October 2023** |
| **Due Date (Deadline):** | **Sunday 5th November @ 23:59** |
| **Late Submission Penalty:** | Late submissions will be accepted up to 5 days after the deadline. All late submissions are subject to a penalty of **10%** of the mark awarded.  Submissions received more than 5 days after the deadline above **will not** be accepted. |
| **Method of Submission:** | **Moodle** |
| **Feedback Method:** | **Results posted in Moodle grade book** |
| **Instructions for Submission:** | **Submit your Jupyter Notebook (.ipynb) to Moodle**  **(Note: Other file formats will NOT be accepted)** |

**Module Learning Outcomes Assessed:**

MLO:

1. Critically evaluate visualisation approaches with respect to their suitability for different problem areas.

(Linked to PLO 5)

1. Select appropriate data visualisation techniques for a given use case, data characteristics.

(Linked to PLO 3, PLO 4)

1. Propose, design, develop, and implement an interactive data visualisation solution, for a given data set, detailing the rationale for approach and visualisation techniques choices made during development.

(Linked to PLO 4, PLO 5)

**Assignment Detail**

You are required to use the dataset contained within the file “Fotune500.csv” and then perform the following analysis:

You are required to explain what you plan on doing with the data. E.g., Why did you choose the specific visualizations? Why did you choose specific observations for a visualization, how did you Engineer your Data? etc **This must be detailed in the Mark-up of the Jupyter Notebook and include the rationale for your choice.**

Generate a plot that details the 5 top Companies by Revenue for each Decade. E.g., Top 5 for 1950-1959, 1960-1969, etc. This must be a single plot either static or interactive.

Plot a graph depicting the distribution of the “Revenue” in the top 20 Companies in 1971.

Find out and visualize which Top 10 Company’s profit increased the most between 1990 and 1999 This Must be a Single plot either static or interactive.

Observe and plot the average revenue by decade This Must be a Single plot either static or interactive.

**Requirements**

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| Explain what you plan on doing with the data. E.g., Why did you choose the specific visualizations? Why did you choose specific observations for a visualization, how did you Engineer your Data? etc This must be detailed in the Mark-up of the Jupyter Notebook and include the rationale for your choice. |
| Generate a plot that details the 5 top Companies by Revenue for each Decade. E.g., Top 5 for 1950-1959, 1960-1969, etc. This Must be a Single plot either static or interactive. |
| Plot a graph depicting the distribution of the “Revenue” in the top 20 Companies in 1971. |
| Find out and visualize which Top 10 Company’s profit increased the most between 1990 and 1999 This Must be a Single plot either static or interactive. |
| Observe and plot the average revenue by decade This Must be a Single plot either static or interactive. |

**Marking Schedule**

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| **Description** | **Weighting** |
| *Explain what you plan on doing with the data. E.g., Why did you choose the specific visualizations? Why did you choose specific observations for a visualization, how did you Engineer your Data? etc This must be detailed in the Mark-up of the Jupyter Notebook and include the rationale for your choice.* | 40% |
| *Generate a plot that details the 5 top Companies by Revenue for each Decade. E.g., Top 5 for 1950-1959, 1960-1969, etc. This can be either static or interactive.* | 15% |
| *Plot a graph depicting the distribution of the “Revenue” in the top 20 Companies in 1971.* | 15% |
| *Find out and visualize which Top 10 Company’s profit increased the most between 1990 and 1999 This Must be a Single plot either static or interactive.* | 15% |
| *Observe and plot the average revenue by decade This Must be a Single plot either static or interactive.* | 15% |
| Poor Referencing, Spelling, Grammar, and Layout will incur marking penalties |  |
| **Total** | **100%** |

**Submission Requirements**

All assessment submissions must meet the minimum requirements listed below. Failure to do so may have implications for the mark awarded.

All assessment submissions must:

* Be submitted as a Jupyter Notebook (.ipynb)
* Be commented properly to explain your work
* All explanations should be in Markdown Cells
* Be submitted by the deadline date specified or be subject to late submission penalties
* Be submitted via Moodle upload
* Use [Harvard Referencing](http://40.115.124.2/sp/subjects/guide.php?subject=harvardref) when citing third party material
* Be the student’s own work.
* Include the CCT assessment cover page.

**Additional Information**

* Lecturers are not required to review draft assessment submissions. This may be offered at the lecturer’s discretion.
* In accordance with CCT policy, feedback to learners may be provided in written, audio or video format and can be provided as individual learner feedback, small group feedback or whole class feedback.
* Results and feedback will only be issued when assessments have been marked and moderated / reviewed by a second examiner.
* Additional feedback may be requested by *filling in the Moodle feedback form.* Additional feedback may be provided as individual, small group or whole class feedback. Lecturers are not obliged to respond to email requests for additional feedback where this is not the specified process or to respond to further requests for feedback following the additional feedback.
* Following receipt of feedback, where a student believes there has been an error in the marks or feedback received, they should avail of the recheck and review process and should not attempt to get a revised mark / feedback by directly approaching the lecturer. Lecturers are not authorised to amend published marks outside of the recheck and review process or the Board of Examiners process.
* Students are advised that disagreement with an academic judgement is not grounds for review.
* For additional support with academic writing and referencing students are advised to contact the CCT Library Service or access the [CCT Learning Space](http://learningspace.cct.ie/subjects/index.php).
* For additional support with subject matter content students are advised to contact the [CCT Student Mentoring Academy](https://moodle.cct.ie/mod/forum/view.php?id=55148)
* For additional support with IT subject content, students are advised to access the [CCT Support Hub](https://moodle.cct.ie/course/view.php?id=1861).