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**CCT College Dublin Continuous Assessment**

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| **Programme Title:** | Higher Diploma Data Analytics for Business | | |
| **Cohort:** | Full Time Sep2023 | | |
| **Module Title(s)**: | Strategic Thinking | | |
| **Assignment Type:** | Group / Practical | **Weighting(s)**: | 20 % |
| **Assignment Title:** | CA 1 – Capstone Project Proposal | | |
| **Lecturer(s)**: | James Garza ([james@cct.ie](mailto:james@cct.ie)) | | |
| **Issue Date:** |  | | |
| **Submission Deadline Date:** | 29th October 2023 23:59 | | |
| **Late Submission Penalty:** | Late submissions will be accepted up to **5** calendar days after the deadline. All late submissions are subject to a penalty of **10%** of the mark awarded.  Submissions received more than 5 calendar days after the deadline above **will not** be accepted, and a mark of 0% will be awarded. | | |
| **Method of Submission:** | **Moodle** | | |
| **Instructions for Submission:** | Your work must be uploaded to Moodle.   * 2 or 3-member group: Capstone Project Proposal in Word or PDF format ONLY. The word count: ~1,000. Individual Reflective Report in Word or PDF format ONLY. The word count is ~500. * Individual: Capstone Project Proposal in Word or PDF format ONLY. The word count: ~1,000. No individual Reflective Report | | |
| **Feedback Method:** | **Results posted in Moodle gradebook** | | |
| **Feedback Date:** |  | | |

**Learning Outcomes:**

Please note that this is not the assessment task. The task to be completed is detailed on the next page.

This CA will assess student attainment of the following minimum intended learning outcomes:

1. Critically evaluate the relationship between information technology infrastructure and organisational competitive advantage.

2. Critically analyse and select open source and proprietary software with a view to developing IT

solutions for business and business-related IT problems.

3. Utilise tools of strategic business analysis to evaluate the current macro and micro business environment with a view to formulating future action plans.

4. Research emerging technologies and critically evaluate their impact on business and business information systems in general.

5. Understand the relationship between data gathering/utilisation and business intelligence and its impact on industry policy.

Attainment of the learning outcomes is the minimum requirement to achieve a Pass mark (40%). Higher marks are awarded where there is evidence of achievement beyond this, in accordance with QQI *Assessment and Standards, Revised 2013*, and summarised in the following table:

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| **Percentage Range** | **CCT Performance Description** | **QQI Description of Attainment** | |
| **Level 6, 7 & 8 awards** | **Level 9 awards** |
| 90% + | Exceptional | Achievement includes that required for a Pass and in **most** respects is significantly and consistently beyond this | Achievement includes that required for a Pass and in **most** respects is significantly and consistently beyond this |
| 80 – 89% | Outstanding |
| 70 – 79% | Excellent |
| 60 – 69% | Very Good | Achievement includes that required for a Pass and in **many** respects is significantly beyond this | Achievement includes that required for a Pass and in **many** respects is significantly beyond this |
| 50 – 59% | Good | Achievement includes that required for a Pass and in **some** respects is significantly beyond this | Attains all the minimum intended programme learning outcomes |
| 40 – 49% | Acceptable | Attains all the minimum intended programme learning outcomes |
| 35 – 39% | Fail | Nearly (but not quite) attains the relevant minimum intended learning outcomes | Nearly (but not quite) attains the relevant minimum intended learning outcomes |
| 0 – 34% | Fail | Does not attain some or all of the minimum intended learning outcomes | Does not attain some or all of the minimum intended learning outcomes |

Please review the CCT Grade Descriptor available on the module Moodle page for a detailed description of the standard of work required for each grade band.

The grading system in CCT is the QQI percentage grading system and is in common use in higher education institutions in Ireland. The pass mark and thresholds for different grade bands may be different from what you have experience of in the higher education system in other countries. CCT grades must be considered in the context of the grading system in Irish higher education and not assumed to represent the same standard the percentage grade reflects when awarded in an international context.

**Assessment Task: Capstone Project Proposal**

**Title:** Select a title for your capstone project.

**Introduction:** Provide a brief overview of the project and its significance. Explain why the capstone project is important, relevant, and interesting. Mention any real-world problems or challenges that the capstone project aims to address. The capstone project should aim to develop possible solutions.

**Objectives:** Outline the specific goals of your capstone project. What do you intend to achieve through this capstone project? Ensure your objectives are clear, concise, and aligned with the project's goals. You should have between three and five objectives. There should be a business objective or hypothesis (not a statistical test hypothesis) that looks to be explored.

**Problem Definition:** Clearly state the problem or challenge the capstone project seeks to solve. Discuss the context of the problem, its impact, and why it's essential to address it.

**Scope:** There should be plenty of scope for the two-semester capstone project. Define the scope of the capstone project. What will be included and excluded from the capstone project, and who will do what? List the boundaries of the capstone project to avoid any ambiguity. Since this is a two-semester project, ample scope should be provided for in-depth analysis and exploration. Describe the planned methods, techniques, and approaches you plan to accomplish in the capstone project. What do you expect to deliver by the end of semester two? Provide a high-level timeline for the capstone project. Break down the project into phases or milestones and estimate the time required for each.

**Data Sources:** Where will you get your data, and how much do you need? Specify the data sources you plan to use in the capstone project. Show evidence of any permissions to access the data and the use of the data.

**Ethical Considerations:** Discuss any ethical considerations associated with the capstone project, especially if it involves sensitive data, user privacy, or potential societal impacts. This will include dataset permissions and use of data permissions. There can be no medical capstone projects.

**Sample Ideas for Capstone Projects:**

Predictive Analytics for Customer Churn in E-commerce.

Increasing company sales

Financial Fraud Detection (Anomaly detection)

Personalised pricing.

Event analysis

Sports predictions (games, players, plays)

Remember that these project ideas are just starting points. Ensure that your project proposal outlines a comprehensive and in-depth analysis that will occur over two semesters.

**Individual Reflective Report:**

* Regarding the individual reflective report, what were your contributions to all aspects of the project, from selecting the dataset to the final presentation and report? Finally, what was your contribution to the creation of the code and report?
* In terms of team dynamics, how did you work well within the team and were able to leverage each other's strengths to deliver a high-quality project? How did you contribute to the communication and were able to communicate effectively, share ideas and provide constructive feedback to improve the quality of the group work? However, if there were some challenges in coordinating schedules and balancing workload, how were you flexible and adapting to changing circumstances?
* In terms of the learning journey, how did this project help you develop a deeper understanding of data analytics / AI?
* Overall, how did this project help you develop valuable technical and collaboration skills that can be applied in future projects?
* Minimum word count of 500.

Further details of the assessment:

1. **Groups of two will be self-selected and put in Moodle. No one can leave a group or be kicked out of a group. If there is an issue in the group, all group members will need to meet with the programme lead or dean of CCT. Your lecturer cannot approve group changes. The maximum group size is 2.**
2. **Support your analysis with references and properly reference ALL sources that you have used. WARNING – If you do not support your work, you will not receive a high mark!**
3. WORD COUNT: 1,000 words. You may lose up to 10% of marks if your report is too short or long!

**Submission Requirements**

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

* Submissions must be completed by 29th October 23:59.
* Capstone Project proposal report in PDF or Word format of about 1,000 words.
* Individual Reflective Report in PDF or Word format of about 500 words.
* You must submit your work by the deadline date specified. Otherwise, you will be subject to late submission penalties.
* Use [Harvard Referencing](http://40.115.124.2/sp/subjects/guide.php?subject=harvardref) when citing third-party material.
* Make sure you submit your own work**. No plagiarism will be tolerated.**
* Include the CCT assessment cover page.

**Additional Information**

* In any situation, the lecturers are entitled to call you in for a further explanation of your code/report/slides.
* 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 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).

**Marking Scheme Summary**

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| **Description** | **Weighting** |
| Project proposal.   * Introduction: clear overview of the capstone project. * Objectives: Objectives aligned with the capstone project's goals. Inclusion of objectives and hypothesis. * Problem definition: context and impact of the problem explained effectively. | 20 |
| Scope and Methodology   * Scope: Well-defined scope of the capstone project with boundaries and limitations. * Methods: Well-explained proposed methods suggested for meeting the capstone project's objectives. * Clear timeline: A high-level timeline of what is planned to be done and by whom. | 20 |
| Data and Ethical Considerations   * Data sources: clear identification of data source(s) and evidence of permission for data use. Also, consider the quantity of data required. * Ethical considerations: a thorough consideration of ethical aspects related to the capstone project. This should include awareness of any privacy concerns, bias and fairness. * Harvard referencing and in-text citations have been done correctly for all aspects of the proposal. | 20 |
| Individual Reflective Report   * What was your contribution to the project? * How did you work well within your team? How did you contribute to the communication and share ideas with the team? * What was your learning journey? How did you develop a deeper understanding of data analytics / AI? * What collaboration skills did you learn? How can these skills be applied to future projects? | 40 |
| **TOTAL** | **100** |