


# NCHNAP565 Data Synthesis AE2

## Assessment Details

<b>Course Leader:</b>	Dr Malik Haddad
<b>First, Second, or Third Sitting:</b>	First
<b>Issue Date:</b>	15th September 2025, 09.00
<b>Assessment Type:</b>	Presentation
<b>Assessment Title:</b>	Summative Assessment 2: Presentation
<b>Restrictions on Time:</b>	30 minutes
<b>Assessment Weighting:</b>	30%
<b>Hand-in Deadline for Supplementary Materials (if applicable):</b>	26th September 2025, 23.59
<b>Presentation Date:</b>	26th September 2025, 09.00
<b>Planned Feedback Deadline:</b>	28 calendar days after last presentation date
<b>File Format Accepted:</b>	[PDF, DOC, DOCX, PPT, PPTX
<b>Mode of Submission:</b>	Online (Canvas)
<b>Anonymous Submission:</b>	NO
<b>Marking Scheme:</b>	Categorical

	<b>Permitted</b>	Use of AI is allowed on this assignment; <i>Claude can be used to improve the presentation slides <b>only</b>.</i>
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## Assessment Task

This assignment should be done collectively, in a team. Please make sure your group distributes the tasks well and helps each other to do them. This is not an individual assignment, and it is encouraged that you work as a team to complement each other's skills.

Explanation of responsible AI use, Claude can be used to improve the presentation slides **only**.

### The Task

Welcome to the Dragon's Den: AI Vision Edition!

You and your team are ambitious tech entrepreneurs seeking investment for your groundbreaking computer vision and facial recognition venture. You must convince our panel of Dragons (industry experts) that your solution is not only technically innovative but also commercially viable, ethically sound, and ready to disrupt the market.

### **Your Mission**

Transform one of these market opportunities into a compelling investment pitch:

#### **1. "ShopSmart Analytics" - The Retail Revolution**

**Market Gap:** Major retailers lose £2.5 billion annually due to poor customer experience and inefficient layouts

**Your Vision:** An AI-powered system that transforms how retailers understand their customers

**The Dragons Want:** ROI projections, privacy solutions, competitive advantage.

#### **2. "MediVision Diagnostics" - Healthcare's Digital Eye**

**Market Gap:** 75% of rare genetic conditions show facial markers that doctors miss

**Your Vision:** A diagnostic assistant that could save the NHS millions while improving patient outcomes

**The Dragons Want:** Accuracy rates, regulatory pathway, patient trust strategy

#### **3. "SafeCity AI" - Urban Security Reimagined**

**Market Gap:** Crime costs UK cities £60 billion yearly, but current CCTV is reactive, not preventive

**Your Vision:** Predictive security that respects privacy while protecting communities

**The Dragons Want:** Civil liberties balance, scalability plan, government contracts potential

#### **4. "GuardianEye" - Industrial Safety Revolutionised**

**Market Gap:** Workplace accidents cost UK businesses £15 billion annually

**Your Vision:** Real-time AI that prevents accidents before they happen

**The Dragons Want:** Lives saved metrics, insurance partnerships, implementation costs

#### **5. "EduEngage AI" - The Future of Learning**

**Market Gap:** 40% of online learners drop out due to lack of engagement monitoring

**Your Vision:** Emotion-aware education that adapts to every student's needs

**The Dragons Want:** Privacy safeguards for minors, school adoption strategy, learning outcomes

### The Pitch Structure

1. Act 1: The Hook
  - Start with a surprising statistic or compelling story
  - Demonstrate the problem with real impact
  - Show your vision
  - State your ask clearly
2. Act 2: The Technical Part
  - Live demonstration or simulation
  - Explain your computer vision architecture
  - Show how you synthesize multiple data streams
  - Reveal your unique selling point - what makes you unique
  - Display performance metrics
3. Act 3: The Business Case
  - Market size and growth projections
  - Customer acquisition plan
  - Competitive analysis
  - Financial projections
4. Act 4: The Reality Check
  - Address privacy and ethics
  - Show your GDPR compliance strategy
  - Discuss bias mitigation approaches
  - Risk mitigation strategies
5. Act 5: The Close
  - Recap your unique selling point
  - Recap competitive analysis
  - Recap performance metrics
  - Recap financial projections
  - Strong call to action

### Deliverables

1. Presentation slides following the pitch structure
2. Technical architecture diagram
3. Post-Pitch reflection – 1 page individual reflection on team performance and lessons learned

You must use visual aids as part of your presentation, i.e. PowerPoint and/or data visualisation software.

Please individually upload the following deliverables to the Summative Assessment 2 submission link on Canvas:

### Deliverables

1. Presentation slides following the pitch structure
2. Technical architecture diagram
3. Post-Pitch reflection – 1 page individual reflection on team performance and lessons learned

In the case of groups struggling to organise their workload and splitting of tasks, group members are urged to reach out to the course leader **early**, so that any issues with the group work can be addressed and resolved.

### Assessment Criteria

This assignment will be evaluated against the specific learning outcomes. Failure to submit all the required documents or non-submission of a supplementary component will result in receiving 0% for that Task.

The criteria for this assessment are detailed in the following rubrics:

Assessment Criteria	Weighting	(100/95/85/82)	(78/75/72)	(68/65.62)	(58/55/52)	(48/45/42)	(38/35/32)	(20/10/0)
Technical Innovation & Critical Application	25%	Demonstrates systematic understanding of CV concepts with critical awareness of current problems. Applies knowledge creatively to	Shows comprehensive knowledge of CV principles with ability to critically analyse their application. Good evaluation of different approaches with	Demonstrates knowledge of main CV concepts and ability to apply established approaches. Some critical evaluation present	Basic knowledge of CV concepts with limited critical analysis. Primarily descriptive application of standard technique	Very basic CV knowledge - can identify concepts but struggle with application. Minimal critical thinking. Heavy reliance on	Insufficient understanding of fundamental concepts. Cannot apply knowledge effectively. Major conceptual errors. Confuse	No grasp of CV concepts. Unable to demonstrate any meaningful understanding. Failure to engage

		propose novel solutions. Shows conceptual understanding enabling critical evaluation of methodologies and development of new approaches. Evidence of research-informed practice	some original thinking. Clear understanding of uncertainty and limits of knowledge	but limited development of new ideas. Shows awareness of different methodologies	ues. Little evidence of evaluation or consideration of alternatives	lecture notes/examples without adaptation. Some fundamental misconceptions present	s basic CV terminology and principles	e with technical content
<b>Data Synthesis &amp; Analytical Mastery</b>	20%	Exceptional ability to critically analyse and synthesise complex data from multiple sources. Demonstrates sophisticated understanding of data	Effectively analyses and integrates diverse data sources with good critical evaluation. Clear analytical framework with ability to	Competent analysis and synthesis of data from multiple sources. Basic critical evaluation of data quality. Can identify main patterns	Limited analytical skills with basic data combination. Minimal critical evaluation of sources or quality. Simple interpretation	Very limited analysis - attempts data combination but with errors. Cannot evaluate data quality. Misinterprets basic statistic	Poor analytical ability. Cannot meaningfully combine data sources. Fundamental errors in basic statistical interpretation. No evidence	Analytical failure. Unable to process or interpret any data meaningfully. No understanding of basic

		relationships and ability to generate new insights. Shows mastery in evaluating data quality, limitations, and implications. Creative problem-solving evident	identify patterns and relationships. Good understanding of data limitations and appropriate handling	but limited depth in interpretation. Standard analytical approaches applied correctly	with little synthesis. Relies heavily on descriptive statistics	s. Synthesis is attempts are minimal or limited	of critical thinking about data	data concepts
<b>Commercial Acumen &amp; Strategic Thinking</b>	20%	Demonstrates sophisticated understanding of business context with critical evaluation of market dynamics. Excellent ability to synthesize academic knowledge with commercial	Good commercial awareness with ability to critically assess business models. Effectively relates technical solution to market needs. Sound evaluation of competitive	Satisfactory understanding of commercial context. Basic ability to relate technical work to business needs. Some evaluation of market opportunity but limited critical	Limited commercial understanding with superficial market analysis. Minimal critical evaluation of business model. Basic awareness of commer	Weak commercial grasp - mentions business terms without understanding. Confused about basic market concepts.	No meaningful commercial analysis. Complete disconnect between technical work and business reality. Fundamental misunderstanding of what constitut	Absence of commercial awareness. No attempt to consider business context or applications

		realities. Strategic thinking evident with well-reasoned judgements about viability and risks. Original insights into market opportunities	landscape and commercial risks. Evidence of strategic thinking	depth. Standard business analysis tools applied	cial factors but weak application. Descriptive rather than analytical		es a market or business model	
<b>Communication &amp; Professional Practice</b>	15%	Exceptional ability to communicate complex ideas to diverse audiences. Demonstrates professional standards exceeding industry expectations. Creative and engaging presentation showing	Communicates complex ideas clearly and professionally. Good awareness of audience with appropriate adaptation of content. Well-structured arguments with effective use of	Communicates main ideas adequately with satisfactory structure. Basic adaptation to audience needs. Acceptable professional standards but limited creativity. Some use of appropriate	Basic communication with some unclear explanations. Limited audience awareness. Meets professional standards in presentation. Struggles with technical	Poor communication - ideas are present but poorly expressed. poor explanation of technical concepts clearly.	Unable to communicate ideas coherently. Presentation is unprofessional or incomprehensible. No evidence of planning or structure. Multiple professional standard	No meaningful communication. Work is incoherent, or absent. Failure to present ideas

		mastery of chosen medium. Critical awareness of audience needs and adapts accordingly	visual aids. Professional presentation standards	ate terminology	terminology		violations	
<b>Collaborative Practice &amp; Team Leadership</b>	10%	Demonstrates exceptional collaborative skills with evidence of leadership and initiative. Critical reflection on team dynamics with strategies for optimization. Takes responsibility for collective outcomes while enabling others. Shows emotional	Effective collaboration with good contribution to team outcomes. Shows initiative and some leadership qualities. Good reflection on team processes with constructive approach to challenges. Reliable	Satisfactory teamwork with adequate contribution. Basic reflection on collaboration but limited initiative. Participates in team activities appropriately. Some awareness of team dynamics	Limited collaboration with minimal contribution beyond assigned tasks. Little reflection on team processes. Basic participation but limited initiative.	Minimal team engagement - attended meetings but contributed little. Little reflection on process. Meets team commitments. With passive participation only	Failed to work effectively in team. Absent from key activities. No contribution to outcomes. May have disrupted team functioning. No evidence of collaborative effort	Team work failure. Either absent entirely or undermined team work. No participation or collaboration



		intelligence and conflict resolution skills	team member					
<b>Ethical Reasoning &amp; Societal Impact</b>	10%	Demonstrates sophisticated ethical reasoning with comprehensive stakeholder analysis. Critical evaluation of ethical frameworks and links and their application. Shows deep understanding of societal implications with innovative approaches to ethical challenges. Evidence of values-based	Good ethical awareness with clear application of ethical principles. Critically evaluates main ethical issues with appropriate mitigation strategies. Good understanding of stakeholder impacts. Thoughtful approach	Basic ethical framework applied with adequate consideration of main issues. Some evaluation of impacts but limited depth. Standard approaches to ethical challenges. Awareness of GDPR and privacy requirements	Minimal ethical consideration with superficial treatment of issues. Limited awareness of stakeholder impacts. Basic compliance approach without deeper reasoning. Awareness of key ethical concerns	Limited ethics - mentions ethics/ GDPR but without understanding implications. Oversight in identifying ethical issues. No stakeholder consideration. Checkbook approach only	No meaningful ethical analysis. Serious ethical violations or complete oversight of obvious issues. No awareness of responsibilities	Work demonstrates disregard for ethical considerations

		decision making						
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The presentation will contain a **10** minute Q&A session. During the Q&A session any group member may be asked any question about the content of the work.

<b>Group Work</b>	<b>55 Marks</b>
Technical Innovation & Critical Application	25
Data Synthesis & Analytical Mastery	20
Collaborative Practice & Team Leadership	10
<b>Presentation</b>	<b>45 Marks</b>
Commercial Acumen & Strategic Thinking	20
Communication & Professional Practice	15
Ethical Reasoning & Societal Impact	10

AI has been used to review this assessment brief for clarity and to develop the Rubrics and align them with the learning outcomes.

## Submitting Assessments

If the assessment calls for the submission of materials to supplement the group presentation, all group members should be sure to make identical submissions.

You have three submission attempts, but only the last submission will be graded. If your last submission attempt is late, you will receive the late penalty even if you have a previous submission that was on time. Please make sure to avoid multiple submissions for assessments with multiple components, as only the last attempt will be graded. Upload several files in one submission attempt using the 'add files' function instead.

If you encounter issues with submission:

- Check the assessment details table at the top of the assessment brief to be sure you are submitting a permitted file format. Avoid zip files (unless explicitly required) and scanned PDFs. Use the 'add files' function to submit multiple files instead of a zip file.

- Make sure you have ticked the agreement box at the bottom of your Canvas submission page (scroll down if you don't see it). This will enable you to select 'Submit Assessment.'
- Try changing web browsers.

If you still cannot submit, e-mail a copy of your assignment before the deadline to [learning.tech@nulondon.ac.uk](mailto:learning.tech@nulondon.ac.uk) along with screenshots of the problem on Canvas, showing a timestamp.

Please review the submitted file to ensure that everything is in order. To turn on notifications for submission confirmation emails in your Canvas settings: Account > Notifications > Turn on the bell for 'All submissions.' In the app this is via Settings > Email Notifications > All submissions.

## Marking

The University uses two assessment marking schemes – one for undergraduate and one for postgraduate – to mark all taught programmes leading to an award of the University.

More detailed information on the assessment marking scheme and the criteria can be found in the Course Syllabus, available on the University's VLE.

## Learning Outcomes

This assessment will enable students to demonstrate in full or in part the learning outcomes identified in the Course Descriptor.

On successful completion of this assessment, students should be able to:

### Knowledge and Understanding

- K1b Understand the key principles, concepts and syntax of NLP and Computer Vision.
- K2b Evaluate and critique technical tools and processes for combining diverse sets of data.

### Subject-Specific Skills

- S1b Use NLP and Computer Vision to parse language and images to solve complex data science problems.
- S2b Effectively use data synthesis to bring diverse and complex datasets together for analysis.
- S3b Work collaboratively to complete complex data synthesis tasks.

### Transferable Skills

- T1b Create visual presentations to a high standard.

- T2b Manipulate, structure and transform complex data.
- T3bi Critically investigate, make judgements and use self-initiative.

## Knowledge, Skills, and Behaviours

This assessment is aligned with the following Knowledge, Skills and Behaviours in the Apprenticeship Standard:

Data Scientist ST0585/AP01

Knowledge	
K3	How data can be used systematically, through an awareness of key platforms for data and analysis in an organisation.
K4	How to design, implement and optimise analytical algorithms – as prototypes and at production scale – using:
K4.1	Statistical and mathematical models and methods.
K4.3	Applications such as computer vision and Natural Language Processing.
K5	The data landscape: how to critically analyse, interpret and evaluate complex information from diverse datasets:
K5.3	Common patterns in real-world data.
Skills	
S1	Identify and clarify problems an organisation faces, and reformulate them into Data Science problems. Devise solutions and make decisions in context by seeking feedback from stakeholders. Apply scientific methods through experiment design, measurement, hypothesis testing and delivery of results. Collaborate with colleagues to gather requirements.
S2	Perform data engineering: create and handle datasets for analysis. Use tools and techniques to source, access, explore, profile, pipeline, combine, transform and store data, and apply governance (quality control, security, privacy) to data.
Behaviours	
B1	An inquisitive approach: the curiosity to explore new questions, opportunities, data, and techniques; tenacity to improve methods and maximise insights; and relentless creativity in their approach to solutions.
B4	Empathy and positive engagement to enable working and collaborating in multi-disciplinary teams, championing and highlighting ethics and diversity in data work.
B5	Adaptability and dynamism when responding to varied tasks and organisational timescales, and pragmatism in the face of real-world scenarios.

B6	Consideration of problems in the context of organisation goals.
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## Accessing Feedback

Students can expect to receive feedback on all summative coursework within 28 calendar days of the submission deadline or, if applicable, the last oral assessment date, whichever later. The 28 calendar day deadline does not apply to work submitted late. Feedback can be accessed through the assessment link on the Canvas course page.

## Late Submissions

If your assessment calls for supplementary materials, please ensure that you submit them well before the deadline to avoid non-submission penalties as indicated in the assessment criteria above. A submission made exactly on the deadline will be considered late, and so, will not be counted towards your assignment. Please keep in mind that there may be differences between your computer's clock and the server time, which can cause discrepancies, and that Canvas may take some time to process your submission.

Your Canvas submission portal may display two due dates: one is the deadline for your assessment, and the second is the portal closure date. Please make sure you submit by the assessment deadline. **All group members are responsible for the timely submission of the assessment.**

For further information, please refer to [AQF7 Part C in the Academic Handbook](#).

## Extenuating Circumstances

The University's Extenuating Circumstances (ECs) procedure is in place if there are genuine circumstances that may prevent a learner from submitting an assessment. If the EC application is successful, there will be no academic penalty for missing the published submission deadline.

Learners are normally expected to apply for ECs in advance of the assessment deadline. Learners may apply for consideration of ECs retrospectively if they can provide evidence that they could not have done so in advance of the deadline. All applications for ECs must be supported by independent evidence.

Successful EC applications for live oral assessments, including vivas, will result in a deferral of the oral to be organized by faculty, learners, and in some instances the End-Point Assessment Office for a date as close as possible to the original presentation date. The deadline for supplementary materials, if assigned, will be carried forward by the length of the oral assessment extension.

Missing an oral assessment, including a compulsory viva, without an approved EC will result in a non-submission for the entire assessment and, accordingly, a recorded mark of 0%.

Learners are reminded that the ECs procedure covers only short-term issues (within 28 days leading to the submission deadline) and that if they experience longer-term matters that impact on learning then they must contact their Success Manager for advice.

Under the Extenuating Circumstances Policy, learners may defer an assessed element on only one occasion and may request an extension on a maximum of two occasions.

For further information, please refer to the [Extenuating Circumstances Policy](#) in the Academic Handbook.

## Academic Misconduct

You must submit work for assessment purposes that is your own and meets good academic practice. Assessments must be completed strictly in accordance with the instructions outlined in the assessment brief. This includes ensuring that your work is appropriately referenced.

It is important to understand if artificial intelligence (AI) is permitted to be used or not, and if yes, the conditions for its use. For clarity, the assessment brief expressly states if AI can be used, and the parameters of its permitted usage. You are not permitted to use AI (in any form) if the assessment brief does not expressly state that usage is permitted.

Any concerns with the academic integrity of a submission will be addressed in accordance with the [Academic Misconduct Policy](#). This policy gives details of the different types of misconduct and the steps the University may take when a concern arises. Action may result in academic penalties being applied directly to you. You are advised to review this policy in full before completing and submitting any work for marking purposes. The University may also take steps to ascertain the authenticity of a submitted piece of work in cases of relevant concern, such as by holding a viva.

## Referrals

If you fail this assignment the first time that you sit it, you will typically be given an opportunity to resit it, subject to the approval of the Progression and Award Board. This is called a referral and your mark will be capped at the pass mark. Referrals will typically use the same assessment brief as the first sitting and you will be able to rework your previous submission. It is strongly recommended that you carefully consider the feedback received on your original submission and use it to improve your work. The deadline for a referral will be communicated to you after the Progression and Award Board has confirmed your mark and approved the referral attempt. The details of reassessment regulations can be found in the [Academic Quality Framework Chapter 7, Part C \(AQF7C\)](#). Please note that if you fail at the first

attempt due to proven academic misconduct, and you are permitted a second attempt, you will usually be provided with a new assessment brief.

## Version History

<b>Title: Assessment Brief: Oral Summative Assessment</b>					
<b>Approved by: The Quality Team</b>					
<b>Version number</b>	<b>Date approved</b>	<b>Date published</b>	<b>Author</b>	<b>Location</b>	<b>Proposed next review date</b>
3.0	March 2023	March 2023	Registrar	VLE/ Faculty Resources Page	March 2024
2.0	August 2022	August 2022	Registrar	VLE/ Faculty Resources Page	July 2023
1.1	December 2021	December 2021	Registrar	VLE	August 2022
1.0	August 2021	August 2021	Registrar	VLE	August 2022
Referenced documents	AQF7 Academic Regulations for Taught Awards; Extenuating Circumstances Policy; Academic Misconduct Policy; Course Syllabus				
External Reference Point(s)	UK Quality Code Theme: Assessment				