

## Bridging Work for AAQ in IT: Data Analytics



Welcome to the IT qualification. You will be studying the OCR Level 3 Alternative Academic Qualification (AAQ) Cambridge Advanced National in IT: Data Analytics.

This qualification aims to develop students' knowledge and understanding of the fundamental principles of data analytics, big data management, and machine learning. Students will gain an insight into the data analytics sector as they investigate data collection, processing, visualisation, and the legal and ethical considerations surrounding data usage.

**The course requires that five units be completed over two years.**

- **Unit F200:** Fundamentals of data analytics (External written exam)
- **Unit F201:** Big data and machine learning (External written exam)
- **Unit F202:** Spreadsheet data modelling (Coursework)
- **Unit F205:** Data visualisation (Coursework)
- **Unit F206:** Data and digital marketing (Coursework)

The work that is highlighted for you to complete in this bridging unit is designed to help you prepare for studying this course. You will need to complete each section and bring in evidence of this in September to show to your IT teacher. **You must attempt all tasks.**

## Task One

Carry out research on the topics below. The research must be in your own words and clearly demonstrate your own understanding.

In a **PowerPoint presentation**, you need to research and create a slide on all of the topics below. You should make sure that each topic is presented on a single slide, but more importantly, the work should be your own. Any work copied or reworded from the Internet is against the rules on an AAQ Course, so you need to get into the habit of ensuring the work is always 100% originally yours.

**1. Explain the different types of data with examples:**

- Quantitative data (numerical data)
- Qualitative data (descriptive data)
- Primary data vs Secondary data
- Structured vs Unstructured data

**2. Explain big data and its characteristics:**

- What is big data?
- The 3 Vs of big data (Volume, Velocity, Variety)
- Examples of big data in everyday life
- Why is big data important for businesses?

**3. Research Data Protection legislation (GDPR and Data Protection Act 2018):**

- Why were these laws introduced?
- What are the key principles of GDPR?
- What are the consequences of breaking these laws?
- How do these laws affect data collection and analytics?

**4. Data visualisation principles:**

- What is data visualisation and why is it important?
- Different types of charts and when to use them (bar, line, pie, scatter plots)
- What makes an effective data visualisation?
- Examples of good and poor data visualisations

## 5. Digital marketing and data:

- How is data used in digital marketing?
- What is targeted advertising?
- Social media analytics and metrics
- Email marketing data and analytics

**Expectation:** Around 15-20 slides, remember to use a variety of sources and to provide the sources of your information.

### Task Two

Carry out research on one person who has been successful in the field of data analytics, data science, or digital marketing. You should fill out the worksheet below:

**Possible examples of people you can research:** Nate Silver, Hilary Mason, DJ Patil, Rand Fishkin, Neil Patel, Avinash Kaushik, or Carla Gentry. BUT even better if you can find one of your own.

Research Area	Your Response
Name of person being researched	
The reason I selected this person is...	

**WRITE ABOUT WHAT YOU FIND INTERESTING ABOUT THIS PERSON.** Areas you might comment on are: What are their notable contributions to the subject? Why are they successful, what seemed to drive them, what skills do they have that stand out, has their life been one of constant development or has it been uneven, or barriers they needed to overcome? How have they achieved this? What questions do you have for them? Try to answer them.

### **Task Three**

You will need to go to the following links, enrol and complete the following online courses:

1. **Introduction to Data Analytics by IBM**

<https://www.coursera.org/learn/introduction-to-data-analytics>

2. **Digital Marketing Specialization by University of Illinois**

<https://www.coursera.org/specializations/digital-marketing>

3. **Data Visualization with Tableau by University of California, Davis**

<https://www.coursera.org/specializations/data-visualization>

**Note:** You can audit these courses for free access. You may need to create a Coursera account and select "Audit" option when enrolling. Take screenshots of completion certificates or progress as evidence.

### **Task Four**

Please choose a task from the list below and write about it, ensure that you relate this task to the field of data analytics and digital marketing.

**Options:**

- Read an article about data privacy and cookies in digital marketing
- Watch a YouTube video about data visualisation best practices
- Visit a specific website about big data or machine learning
- Read about how Netflix or Spotify uses data analytics
- Research a data breach incident and its impact
- Join a data analytics or digital marketing online community
- Watch a documentary about artificial intelligence and big data

**Task completed:** \_\_\_\_\_

**My thoughts about this task are:**

**What I thought of the activity, it has made me think/inspired me about:**

**How this relates to data analytics and digital marketing:**