



# EPA Preparation: Scenario Demonstration (AM1)

A comprehensive guide to structure, criteria, tasks, skills, and what to expect during your assessment.

# What Assessment Method 1 Involves



## Two Live Demonstrations

Each demonstration lasts 45 minutes, conducted via Teams with live observation throughout.



## Data Gathering Focus

First demonstration centres on importing, cleaning, and blending datasets from multiple sources.



## Analysis & Validation

Second demonstration focuses on filtering, statistics, error identification, and data validation.



## Assessor Questions

Minimum of 10 questions throughout to test your understanding and reasoning.

# Essential Items You Must Bring



## Required Documentation

- Valid photo identification
- Assessment booking confirmation



## Technical Setup

- Working laptop with webcam
- Stable internet connection
- All chosen tools pre-installed and tested



## Environment

- Clean, quiet workspace free from distractions
- Good lighting for webcam visibility



## Not Permitted

- External reference notes or materials
- Pre-prepared templates or solutions
- Assistance from others

# Approved Tools and Resources

1

## Spreadsheet Software

Microsoft Excel or Google Sheets for data manipulation, formulas, and basic analysis.

2

## Database Tools

SQL platforms for querying and managing structured data efficiently.

3

## Programming Languages

Python or R for advanced data processing, statistical analysis, and automation.

4

## Visualisation Platforms

Power BI or similar for creating dashboards and visual representations.

5

## Basic Utilities

Calculator and on-screen notes created during the assessment itself.

# What Assessors Will Observe

## Access Multiple Data Sources

Demonstrate ability to connect to and import data from various file types and systems.

## Examine and Explore Data

Show systematic approach to understanding data structure, content, and quality.

## Filter and Adjust Data

Apply relevant criteria to extract meaningful subsets whilst maintaining data integrity.

## Save Datasets Correctly

Store processed data in appropriate formats with clear naming conventions.

## Clean and Correct Errors

Identify inconsistencies, duplicates, and errors, then apply appropriate corrections.

## Make Brief Notes

Document key findings, decisions, and anomalies discovered during analysis.

## Explain Actions Clearly

Articulate reasoning behind each decision and technique applied throughout.

# Demonstration 1

## Data Gathering



### Import Data

Access and load datasets from provided sources.



### Clean & Prepare

Identify and resolve quality issues systematically.



### Blend Datasets

Combine multiple sources into unified structure.



### Link Records

Establish relationships between related data points.



### Summarise Findings

Present key insights clearly and concisely.

# Knowledge Criteria: Demonstration 1



## K2: Data Access & Extraction

Demonstrate understanding of how to locate, access, and extract data from various sources including databases, spreadsheets, and external systems.



## K3: Data Collation & Formatting

Show knowledge of techniques for organising, structuring, and formatting data appropriately for analysis purposes.



## K6: Blending Multiple Sources

Explain methods for combining data from different sources whilst maintaining consistency and integrity across datasets.

# Skills Criteria: Demonstration 1

1

## S1: Source & Migrate Data

Successfully import data from varied locations and formats.

2

## S2: Collect, Format, Save

Apply consistent formatting and save datasets appropriately.

3

## S3: Summarise Data

Extract and present key information effectively.

4

## S4: Blend Datasets

Merge multiple sources into cohesive structures.

5

## S5: Link Datasets

Create meaningful relationships between records.

6

## S6: Identify Patterns

Recognise trends, anomalies, and relationships in data.

# Achieving Distinction in Demonstration 1

## Analyse the Purpose

Go beyond *how* data is gathered. Explain **why** specific data sources are selected and what business value they provide to the analysis.

## Justify Multiple Sources

Articulate **why** combining multiple data sources creates more comprehensive insights than relying on a single source alone.

Distinction requires demonstrating deeper analytical thinking and understanding of the strategic importance behind technical tasks.



# Demonstration 2

## Analysis & Validation

### Filter Datasets

Apply criteria to extract relevant records for analysis.



### Apply Basic Statistics

Use appropriate statistical measures to analyse data.



### Identify Errors

Spot inconsistencies, outliers, and data quality issues.

### Validate Results

Cross-check findings to ensure accuracy and reliability.



### Clean Incorrect Values

Correct identified errors using appropriate techniques.

# Knowledge Criteria: Demonstration 2



## K7: Understanding Algorithms

Demonstrate knowledge of how algorithms and automated processes work to manipulate and analyse data efficiently.



## K8: Filtering Information

Explain techniques for isolating relevant data whilst excluding irrelevant information based on specific criteria.



## K9: Statistics & Modelling

Show understanding of basic statistical concepts and how they're applied to interpret and model data patterns.

# Skills Criteria: Demonstration 2

## S7: Apply Statistics & Algorithms

Successfully implement statistical methods and algorithmic processes to analyse datasets and generate meaningful insights.

## S8: Cross-Check Data

Verify accuracy by comparing results across different sources or calculation methods to ensure consistency.

## S9: Audit Results

Systematically review outputs to identify errors, validate findings, and ensure quality standards are met.

## S16: Clean Data Thoroughly

Apply comprehensive data cleaning techniques to remove errors, inconsistencies, and improve overall data quality.

# Achieving Distinction in Demonstration 2



## Justify Cross-Checking

Explain **why** cross-checking is essential for ensuring data reliability and catching errors that single-method validation might miss.

## Evaluate Trends & Faults

Articulate **why** identifying trends matters for business decisions and why spotting faults prevents costly mistakes downstream.

# Professional Approach to Work

Demonstrated Across Both Assessments



## S18: Prioritise Tasks

Demonstrate ability to sequence work logically, tackling most critical tasks first whilst managing time effectively throughout the assessment.



## B2: Work Independently

Show capability to make decisions autonomously, solve problems without guidance, and take ownership of your work throughout both demonstrations.



## B3: Use Initiative

Proactively identify issues, suggest solutions, and take appropriate action without waiting for explicit instructions from the assessor.



## B4: Thoroughness & Organisation

Maintain systematic approach, pay attention to detail, and ensure all aspects of tasks are completed to professional standards.

# Distinction: Professional Behaviours

## Evaluate Your Prioritisation

"I chose to address data quality first because errors would compound throughout subsequent analysis, making this the most efficient approach."

## Explain Your Sequence

"I've ordered these steps to minimise rework—validating source data before blending prevents having to repeat the merge process later."

Distinction requires articulating the **reasoning** behind your workflow decisions, not just executing tasks correctly.



# Critical Skills: Build Your Confidence

## Data Handling

- Importing various file formats
- Cleaning and standardising data
- Blending multiple datasets
- Spotting and correcting errors

## Technical Proficiency

- IF and conditional formulas
- COUNTIF(S) and SUMIF(S)
- Basic statistical measures
- Data validation techniques

## Communication

- Summarising findings clearly
- Thinking aloud during work
- Explaining your reasoning
- Articulating decisions made

 Practice these skills repeatedly until they become second nature. Confidence comes from competence built through consistent practice.

# Typical Tasks: Demonstration 1



## Import Multiple Files

Load datasets from CSV, Excel, or database sources provided by the assessor.



## Fix Duplicates & Formatting

Identify and remove duplicate records; standardise inconsistent formatting across fields.



## Blend Datasets Together

Merge related datasets using common keys or identifiers to create unified view.



## Check Consistency

Verify that merged data maintains integrity and relationships are correctly established.



## Summarise Key Findings

Document important observations, data characteristics, and quality issues discovered.

# Typical Tasks: Demonstration 2



## Filter Relevant Records

Apply criteria to isolate specific subsets of data needed for analysis.



## Apply Statistics

Calculate measures like mean, median, mode, or standard deviation as required.



## Identify Outliers

Spot unusual values that fall outside expected ranges or patterns.



## Validate Data

Cross-check results using alternative methods or reference sources.



## Correct Errors

Fix identified issues using appropriate techniques whilst documenting changes.

# Typical Assessor Questions

- "Why did you choose to do it this particular way?"
- "What specific errors or issues did you find in the data?"
- "How did you validate the accuracy of your data?"
- "Why does cross-checking matter in this context?"
- "Can you explain the reasoning behind your order of steps?"

Prepare to articulate your reasoning clearly. Assessors want to understand your **thought process**, not just see correct outputs.

# Six Essential Success Tips



## Think Aloud

Verbalise your thought process continuously so assessors understand your reasoning.



## Stay Calm

Manage stress through steady breathing; clear thinking emerges from composure.



## Work Methodically

Follow logical sequences; rushing leads to mistakes that consume more time.



## Explain Decisions

Articulate why you chose specific approaches or techniques throughout assessment.



## Prioritise Logically

Sequence tasks by importance and dependency to maximise efficiency.



## Check Your Work

Review outputs systematically before moving forward; catch errors early.

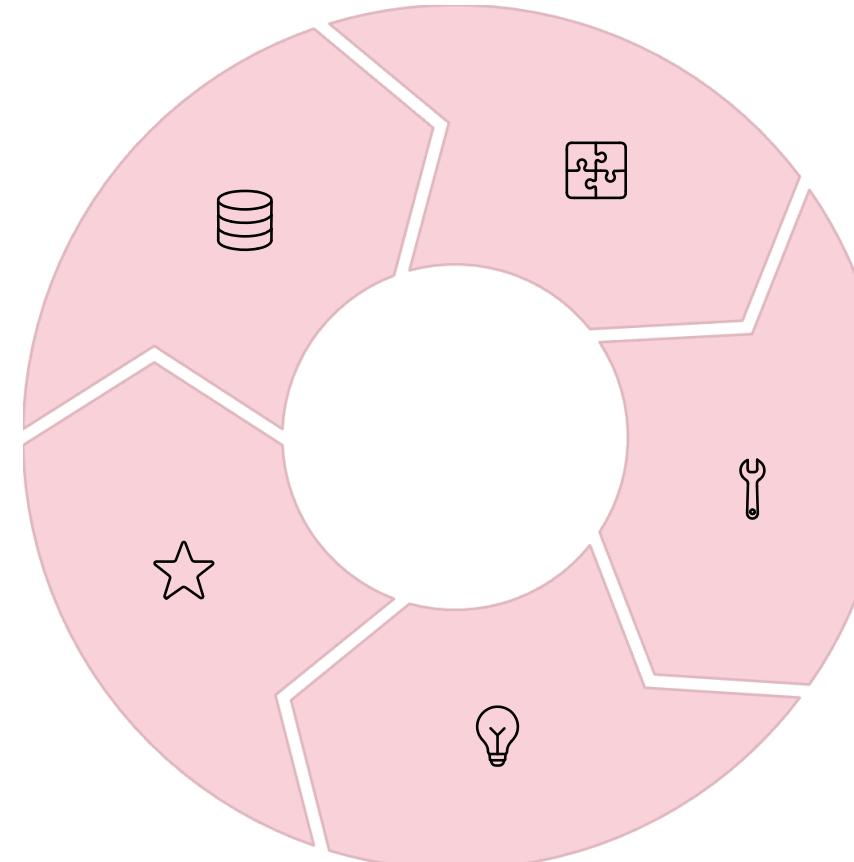
# What AM1 Truly Tests

## Work With Real Data

Handle authentic datasets with realistic challenges and complexities.

## Apply Professional Behaviours

Exhibit initiative, thoroughness, and systematic approach expected in workplace.



## Solve Problems Independently

Apply critical thinking to overcome obstacles without external guidance.

## Demonstrate Technical Competence

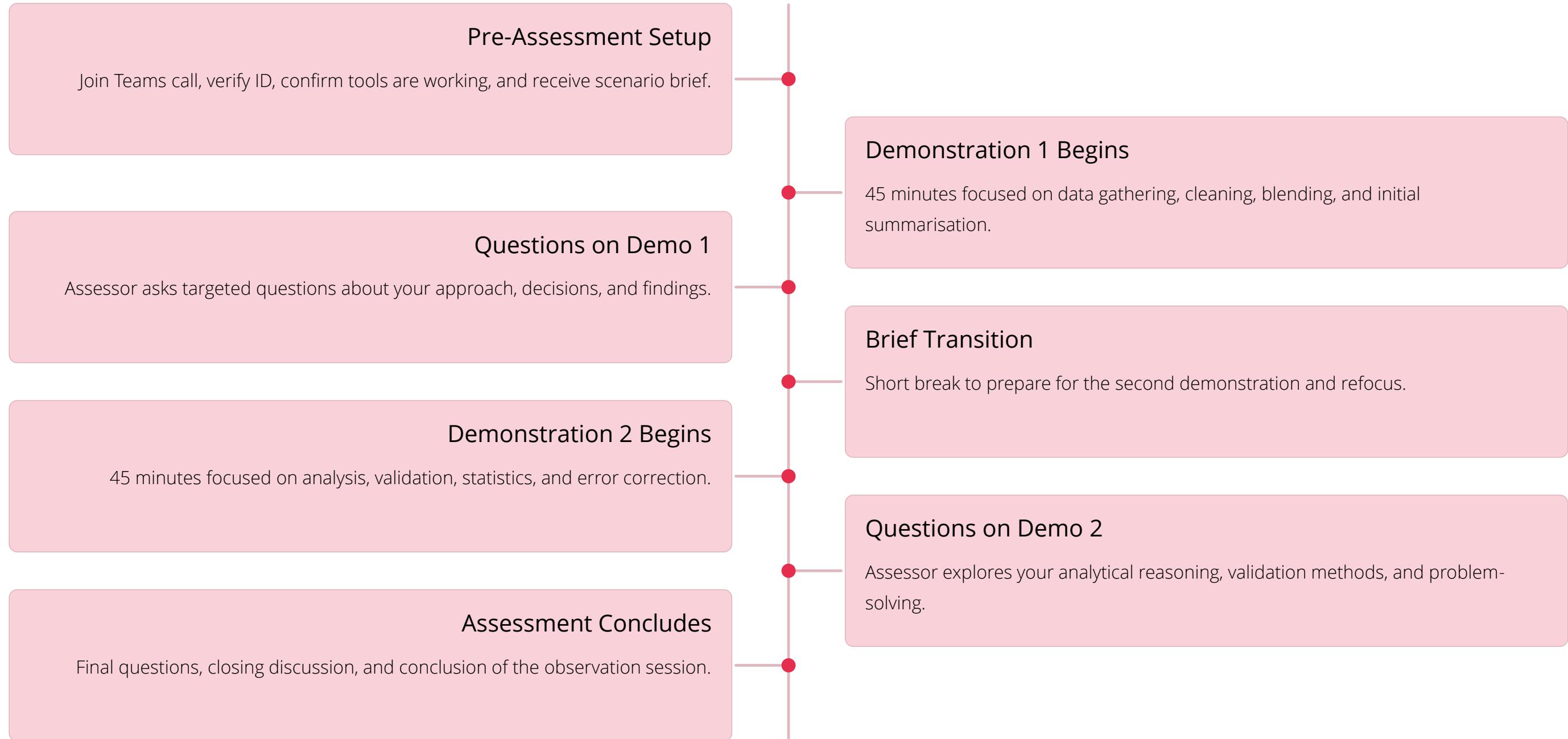
Execute data analysis tasks using appropriate tools and techniques proficiently.

## Show Clear Reasoning

Articulate logical thought processes behind decisions and methodologies chosen.

Preparation leads to confidence. Master the skills, understand the criteria, and trust in your abilities.

# Assessment Day Timeline



# Common Mistakes to Avoid

## → Working in Silence

Failing to verbalise your thinking leaves assessors unable to follow your reasoning.

## → Poor Time Management

Spending excessive time on early tasks leaves insufficient time for completion.

## → Rushing Through Tasks

Speed without accuracy creates errors that consume more time fixing than preventing.

## → Inadequate Explanation

Simply stating what you did without explaining why demonstrates surface-level understanding.

## → Skipping Validation

Not cross-checking results means undetected errors propagate through your analysis.

## → Ignoring Data Quality

Proceeding without addressing obvious errors undermines the integrity of your entire analysis.

# Your Preparation Checklist

## Technical Skills Practice

Complete multiple practice scenarios covering importing, cleaning, blending, filtering, statistics, and validation until fluent.

## Tool Proficiency

Ensure complete comfort with your chosen tools—know shortcuts, formulas, and functions without needing to search for help.

## Verbal Explanation Practice

Practise explaining your decisions aloud whilst working through sample scenarios to develop natural articulation habits.

## Criteria Review

Study all knowledge, skills, and behaviour criteria thoroughly so you understand what assessors are evaluating.

## Environment Setup

Test your technical setup, internet connection, webcam, and workspace well before assessment day—eliminate surprises.

## Mental Preparation

Build confidence through thorough preparation; visualise successful performance; plan stress management strategies.

# You're Ready

## Trust Your Preparation

You've developed the technical skills, understood the criteria, and prepared thoroughly. Assessment Method 1 is your opportunity to demonstrate the competence you've built throughout your apprenticeship.

Approach the assessment with confidence, work systematically, explain your reasoning clearly, and showcase your professional capabilities.

**Remember:** The assessors want you to succeed. They're evaluating whether you meet the standard—and with proper preparation, you absolutely can.