AM1 Session 1 – Understanding AM1 & Preparing Data for Analysis

Welcome to your first AM1 preparation session. This session will help you understand what AM1 is, what happens on the day, and how to prepare data properly before analysis. We'll focus on building your confidence and developing good habits that will help you succeed.

What is AM1?

The Basics

AM1 stands for **Assessment Method 1**. It's a practical assessment where you demonstrate your data skills in a realistic work scenario.

You'll work through **two scenarios** whilst being observed by an assessor. Don't worry – the assessor is there to see how you work, not to catch you out.

What Really Matters

You're marked on **how you work and explain your thinking**, not on speed. Taking your time and talking through what you're doing is exactly what assessors want to see.

Think of it like showing a colleague how you solve a problem. It's completely normal and expected to talk whilst you work.

What AM1 Scenario 1 is Testing

Getting Data In

Bringing data from more than one place into Excel correctly using proper methods.

Checking Quality

Making sure the data is usable, spotting problems early, and fixing basic issues.

Combining Data

Joining datasets together correctly using linking fields so information matches up properly.

Saving Properly

Organising and saving your work in the right format with clear file names.

These are fundamental skills that every data technician uses daily in their work. The assessment reflects what you'd actually do in a real job.

Getting Data In – Using Get Data

What "Get Data" Means in Simple Terms

Get Data is Excel's proper way of bringing information into your workbook. You'll find it on the **Data tab** in Excel. Instead of copying and pasting, Get Data creates a reliable connection to your source file.

Common Data Sources You'll Use

- **CSV files** – Simple text files with commas separating values
- **Excel workbooks** – Other Excel files with data in tables
- **System exports** – Data downloaded from databases or business systems

Why Get Data is Better: When you use Get Data, Excel remembers where the information came from. If the source file updates, you can refresh your data. Copy and paste doesn't give you this control or traceability.

Simple Example: Importing Two Files

01

Click Data Tab, Choose Get Data

Select From File, then choose the file type (e.g., From Text/CSV or From Workbook)

02

Navigate to Your File

Browse to where your file is saved, select it, and click Import

03

Preview Your Data

Excel shows you what the data looks like. Check the columns appear sensible

04

Load into Excel

Click Load to bring it into a new worksheet. Repeat for your second file

Always import each dataset into its own worksheet first. This keeps things organised and makes it easier to check each one properly before combining them.

First Checks When Data Arrives

Column Sense Check

Do the column headings match what you expected? Look for things like "Customer ID", "Order Date", "Product Name". If headings are missing or unclear, you'll need to add or rename them.

Data Type Check

Are dates showing as dates? Are numbers showing as numbers (not text)? Excel sometimes gets this wrong, especially with CSV files.

Blanks and Errors

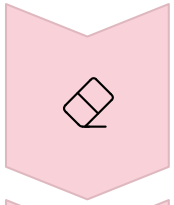
Scroll down through your data. Are there obvious blank rows? Any error messages like #N/A or #VALUE!? These need addressing before you continue.

Why Assessors Expect This

In a real job, using poor quality data leads to incorrect analysis. Assessors want to see that you **check before you proceed**.

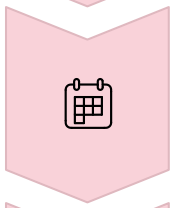
What to Say: "I'm checking the data has loaded correctly. The columns look right, and the dates appear to be formatted properly. I can see there are no obvious blank rows in this dataset."

Cleaning Data (Simple, Practical Steps)



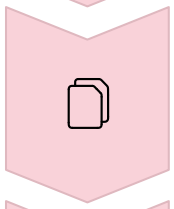
Remove Blank Rows

Select your data, go to Home tab, Find & Select, Go To Special, then Blanks. Delete entire rows that are completely empty.



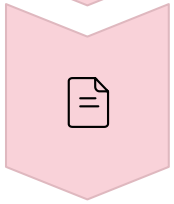
Fix Date and Number Formats

Select the column, right-click, Format Cells. Choose Date or Number as appropriate. Make sure currency shows £ signs if needed.



Remove Duplicates

Select your data range, go to Data tab, click Remove Duplicates. Choose which columns should be unique (e.g., Customer ID).



Rename Columns Clearly

Change vague headings like "Col1" to meaningful names like "Customer Name". This makes your work easier to understand.

Always Explain: "I'm removing duplicates because each customer should only appear once in this list. This makes the data reliable for analysis."

Preparing for Blending: Understanding Linking Fields

What a Linking Field Is

A linking field is a column that appears in **both datasets** and contains **matching values**. It's what allows you to join information from different sources together correctly.

Think of it like a reference number that connects related information. When you have the same Customer ID in both files, you can match that customer's orders with their contact details.

Examples of Good Linking Fields

- **Customer ID** – unique number for each customer
- **Product Code** – unique code for each product
- **Order Number** – unique reference for each order
- **Employee ID** – unique identifier for each staff member

Good linking fields are **unique** and appear in **exactly the same format** in both datasets.

Common Linking Field Mistakes

Different Column Names

One file calls it "CustID" and another calls it "Customer_Number". They need to match exactly, so rename one before blending.

Extra Spaces

One ID shows as "C001" and another as "C001 " (with a space). Excel sees these as different. Use TRIM function to remove extra spaces.

Different Data Types

One file has Product Code as text "001" and another as number 1. Convert both to the same format (usually text for IDs).

Why Checking This First Saves Time: If your linking fields don't match properly, your blend will fail or produce incorrect results. Fixing this before you start combining data prevents frustration and errors.

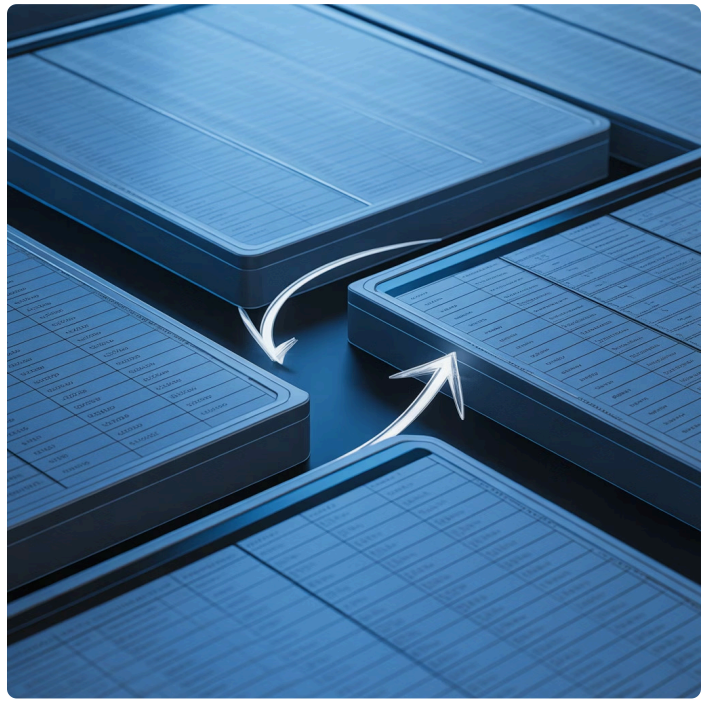
Blending Data: Step-by-Step

The Process

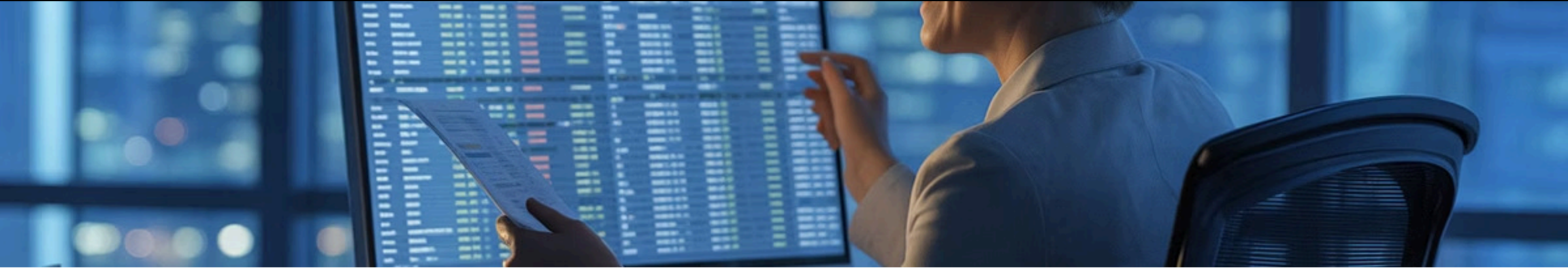
1. **Identify your linking field** – Find the column that appears in both datasets
2. **Check it matches** – Make sure values are identical in format
3. **Choose your method** – XLOOKUP, INDEX MATCH, or Power Query Merge
4. **Test with one row** – Check the first result makes sense
5. **Copy down** – Apply the formula to all rows
6. **Check for errors** – Look for #N/A or blanks where you expect data

What to Do If Records Don't Match

If you see #N/A errors, it means that ID doesn't exist in the other dataset. Check for typos in the linking field or confirm whether that record should genuinely have no match.



What to Say: "I'm using XLOOKUP to bring the product names from the Products table into the Sales table, matching on Product Code. I'll check the first result to make sure it's pulling the correct information."



Checking Your Blend Makes Sense

Spot Check Known Values

Pick a record you recognise and check the blended data is correct. Does Customer C001 show the right name and address?

Count Your Records

You started with 500 sales records. After blending, you should still have 500 rows (unless you deliberately filtered). Check your row count.

Look for Blanks

Are there unexpected blanks in the new columns you've added? This might mean some IDs didn't match up and need investigating.

Taking two minutes to check your work at this stage can save you from carrying errors through into your analysis. Assessors want to see this careful approach.

Saving and Organising Your Data

Saving in the Correct Format

For AM1, save your work as an **Excel Workbook (.xlsx)**. This preserves your formulas, formatting, and multiple worksheets.

If you're asked to export data for use elsewhere, you might save as CSV. But for your working file, always use .xlsx.

Clear File Names

Use descriptive names that make sense:

- **Good:** "Sales_Analysis_Jan2024_v1.xlsx"
- **Poor:** "Book1.xlsx" or "Final_FINAL_v3.xlsx"

Include your name and the date if you're submitting work. This shows professional organisation.

Why Assessors Care About This

In a real workplace, colleagues need to find and understand your work. Proper file naming and organisation demonstrates that you work professionally and consider other people who might use your files.

It also shows you understand data management, which is a key part of your role as a data technician.

Talking Through Your Work

The assessor needs to understand your thinking. Speaking out loud as you work helps them see that you know what you're doing and why. Here are some example phrases you can use:

"I'm using Get Data to import this CSV file because it creates a proper connection and I can refresh the data if it changes."

"I'm checking the date column is formatted correctly. I can see some dates aren't displaying properly, so I need to fix that format."

"I've identified Customer ID as the linking field. I can see it appears in both datasets with the same format, so it's suitable for blending."

"I'm removing duplicates based on Order Number because each order should only appear once in this dataset."

Answering "Why Did You Do That?"

Explaining Your Decisions Simply

Assessors might ask questions like:

- "Why did you use Get Data instead of copy and paste?"
- "Why did you remove those rows?"
- "How do you know this is the right linking field?"

Don't panic – these aren't trick questions. They want to hear your reasoning.

Good Answer Structure

1. **What** you did
2. **Why** you did it
3. **How** it helps

Example Answer

"I used Get Data to import the file (what) because it creates a proper connection to the source data (why). This means if the source file is updated, I can refresh my data rather than starting again (how it helps)."

Another Example

"I removed the duplicate customer records (what) because each customer should only appear once in the customer list (why). Having duplicates would give me incorrect totals when I analyse the data (how it helps)."

Remember: You're not expected to use complex technical terms. Clear, simple explanations that show you understand what you're doing are exactly what assessors want to hear.

Session Summary & Next Steps

What You Must Be Confident With Before Session 2

1

Understanding AM1

You know what happens on the day and that talking through your work is expected and valued.

2

Getting Data In

You can confidently use Get Data to import files and understand why it's the proper method.

3

Checking Quality

You know to check data when it arrives and can spot common issues like wrong formats or blanks.

4

Preparing Data

You can clean data by removing duplicates, fixing formats, and renaming columns clearly.

5

Blending Datasets

You understand linking fields and can combine two datasets correctly, checking the result makes sense.

How This Links to AM1 Scenario 1

Everything covered today directly reflects what you'll need to do in the first scenario. You'll receive data from multiple sources, prepare it properly, and combine it ready for analysis. Session 2 will build on this by covering the actual analysis techniques.

Final Reassurance: This is about developing good habits and working methodically, not about being a technical expert. Take your time, explain what you're doing, and remember that the assessor wants you to succeed.