Mohamed Khider University, Biskra, Faculty of Architecture, Civil Engineering, Hydraulics
Department of Architecture

Master 2 in **Construction Projects Management**
Course: **Data Analysis**

05 04 03 02 01 About course

CHAPTER 04

Data Analysis: Exploitation of the Data Collected

Part 03

Dr. Bendjedidi Souhaila



2025/2026

Analyzing Qualitative Data with Nvivo (Introduction to Nvivo)



1. Overview of NVivo

II-1-1-What is NVivo?

NVivo is a qualitative data analysis (QDA) software. It is designed to help researchers organize, analyze, and interpret non-numerical data such as interview transcripts, open-ended survey responses, focus group discussions, field notes, documents, audio files, videos, and images.

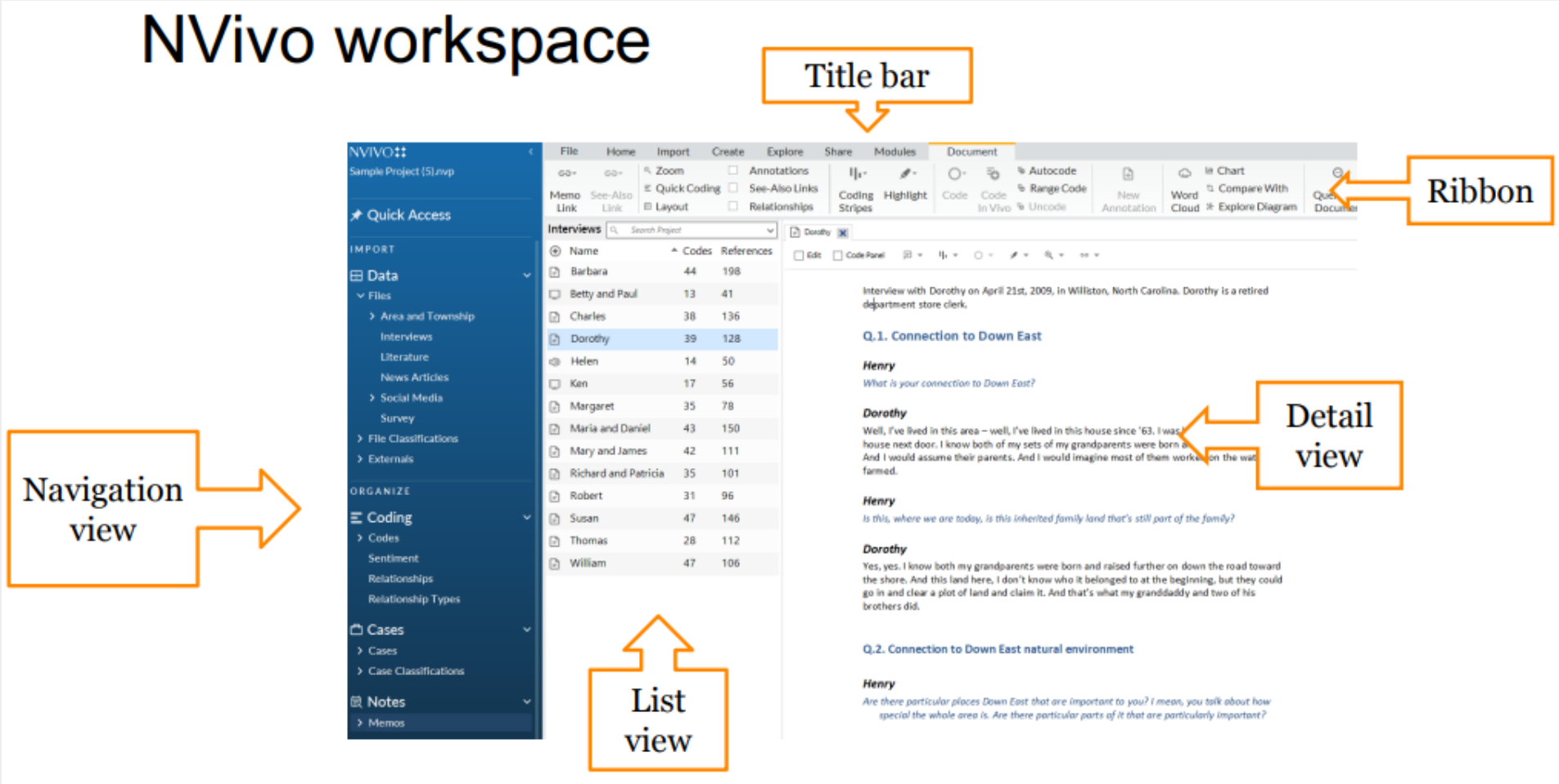
1. Overview of NVivo

1-2-why use NVivo for Qualitative Data Analysis?

- Handles large and diverse datasets (text, audio, video, surveys, etc.).
- Facilitates data organization with classifications and attributes.
- Includes visualization tools (word clouds, charts, tree maps, concept maps).
- Integrates with other platforms (Excel, SurveyMonkey, EndNote…..).
- Generates reports and exports findings for publication or presentations.

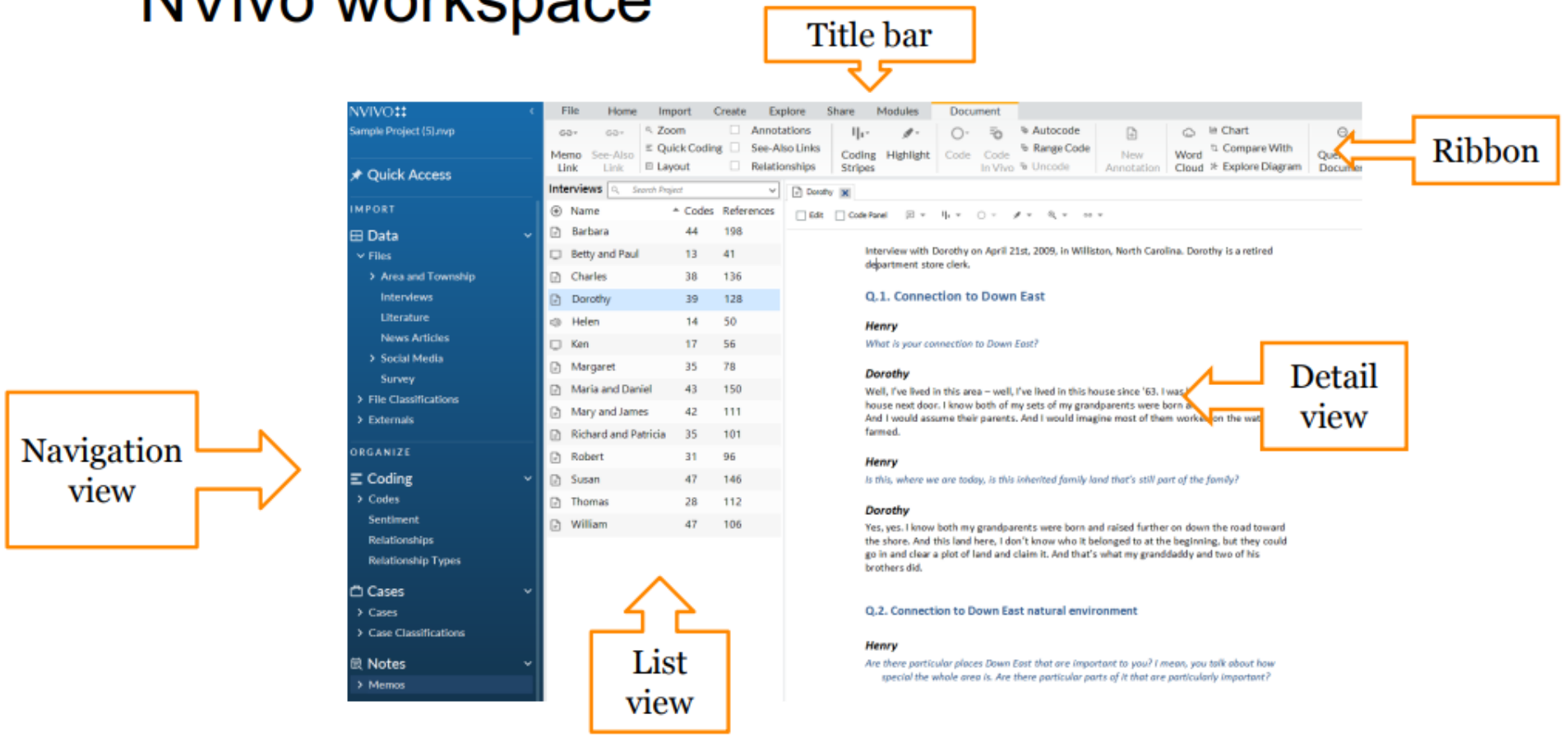
Explore the NVivo Interface

The left side menu (navigation view) helps you navigate the various items of your project, such as your files, codes, notes, queries, etc.



Explore the NVivo Interface

NVivo workspace

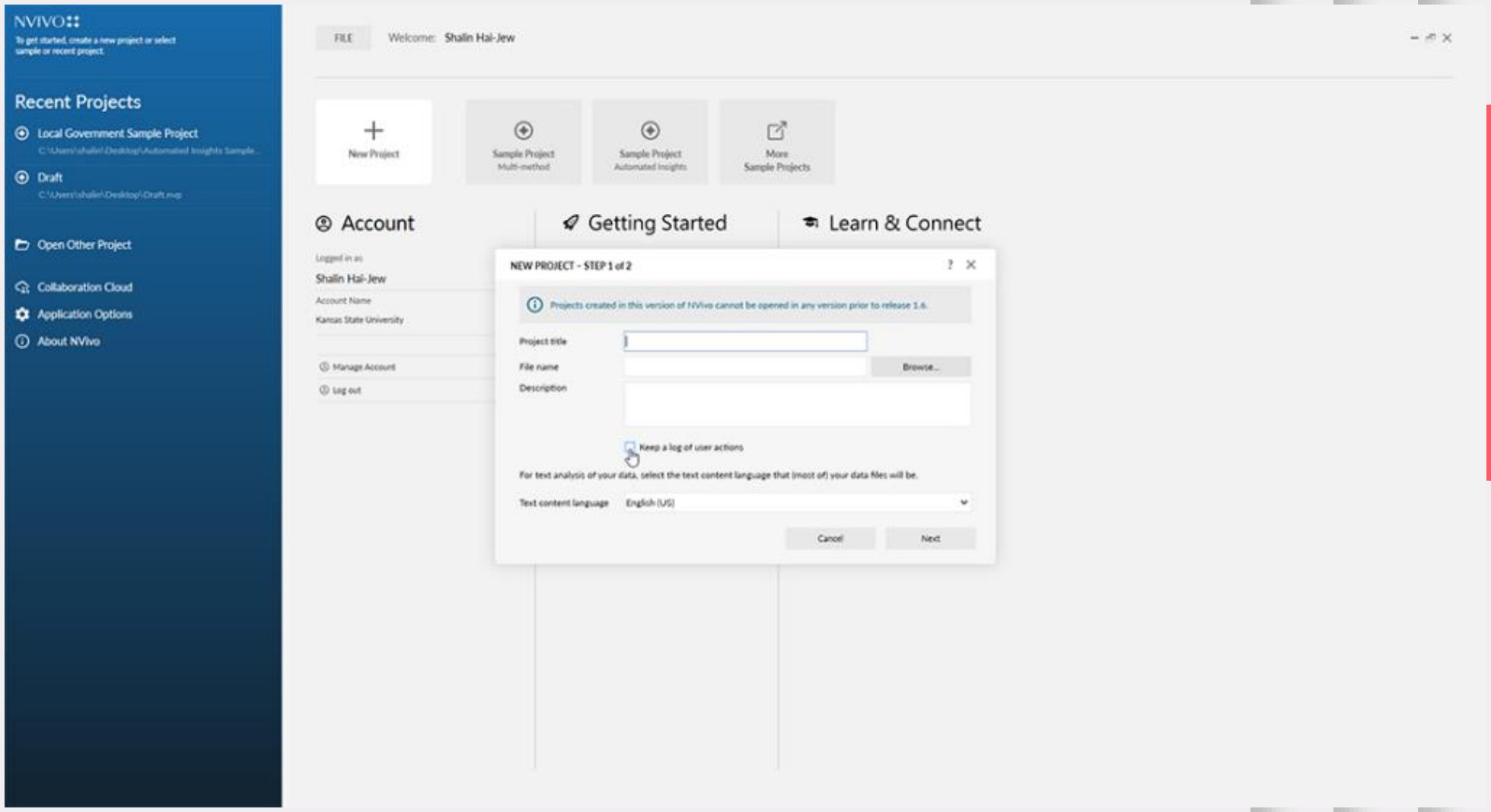


At the top are various ribbon menus, similar to Microsoft tools, such as Word or Excel. These menus and their options will change depending on what is selected.

03 Step-by-Step NVivo Data Analysis Process

Step 1: Set Up a New Project

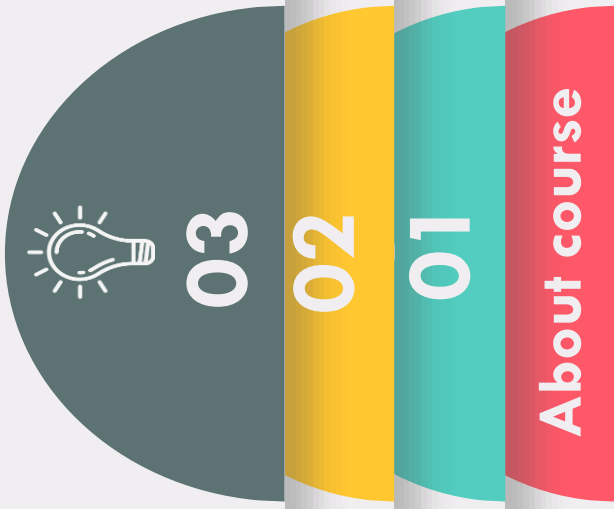
- Create a new project: Open NVivo and click on "New Project."
- Provide a name and optional description for your project.
- Save the project file to a designated folder on your computer.



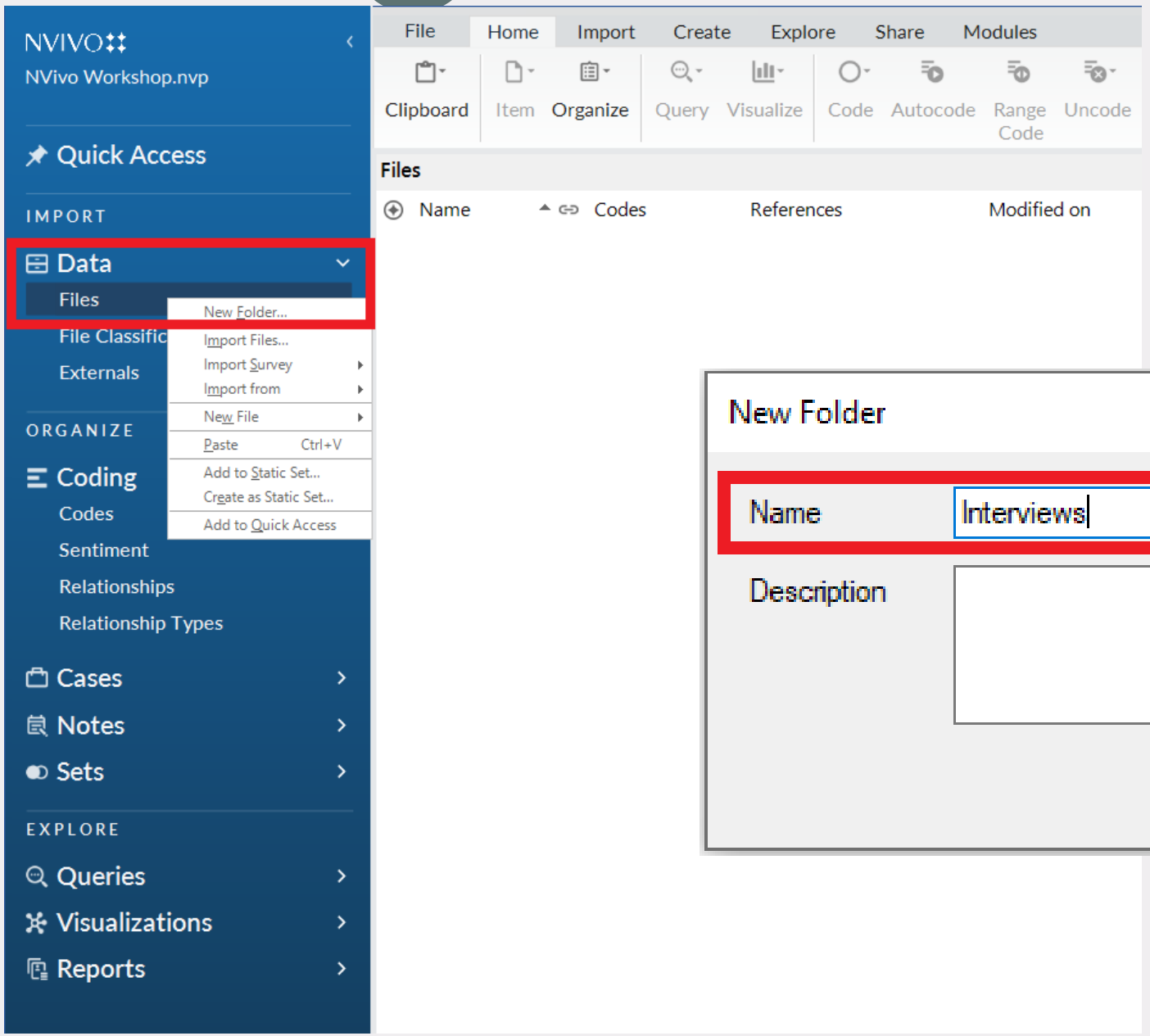
03 Step-by-Step NVivo Data Analysis Process

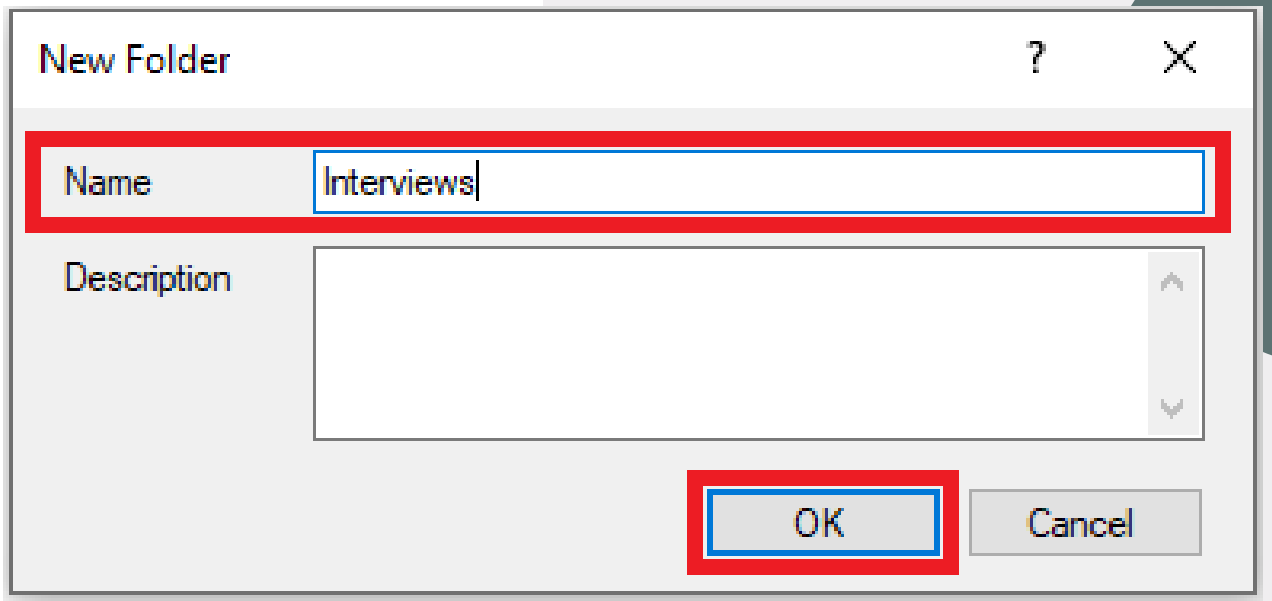
Step 2: Organize Data

1. Open NVivo and navigate to your project.
2. In the Navigation Pane (left menu), expand Data.
3. Right-click on Files and select New Folder.
4. Name the folder based on your data type (e.g., “Interviews,” “Focus Groups”).
5. Repeat this process for other data categories to create a structured workspace.

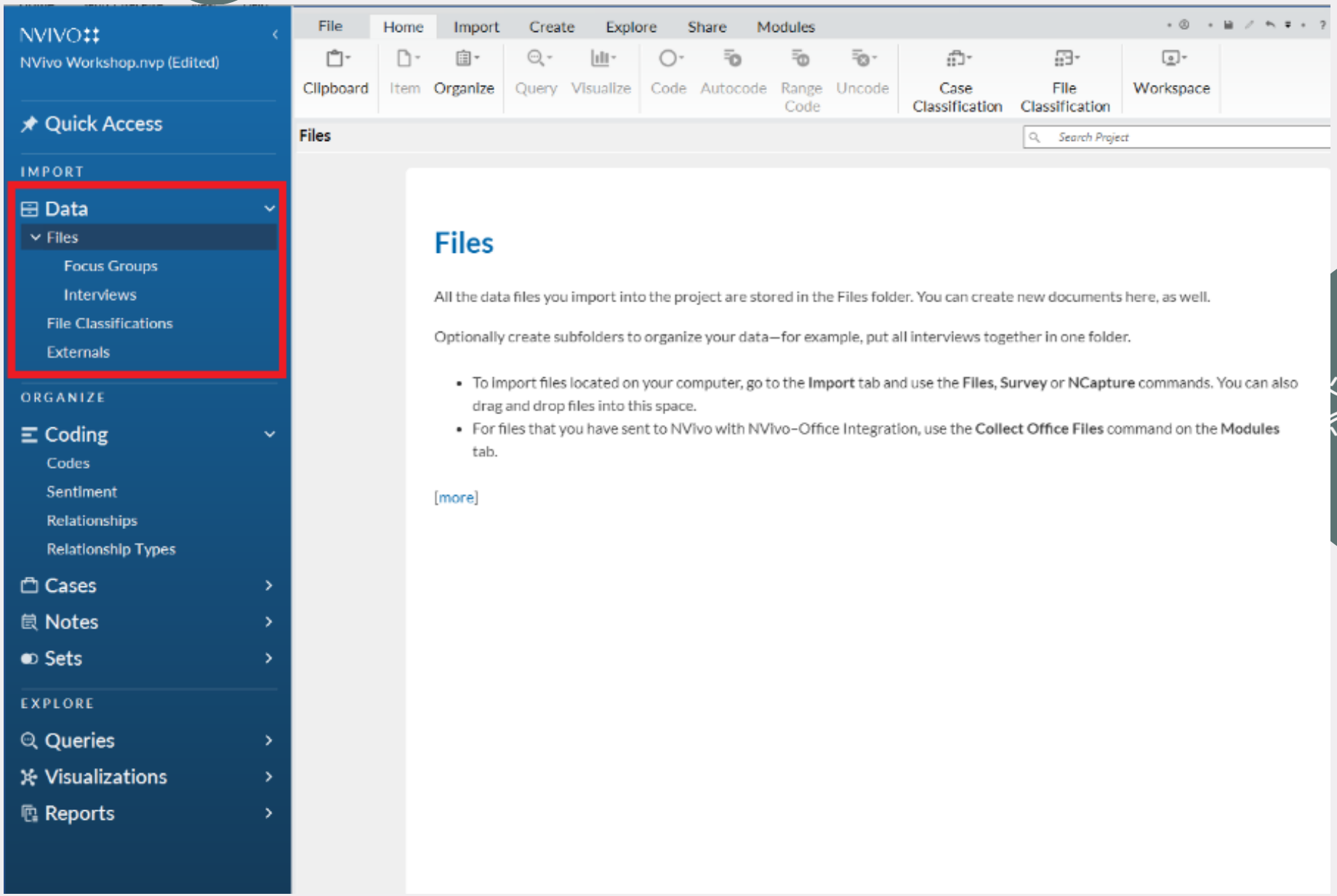


03 Step-by-Step NVivo Data Analysis Process





03 Step-by-Step NVivo Data Analysis Process

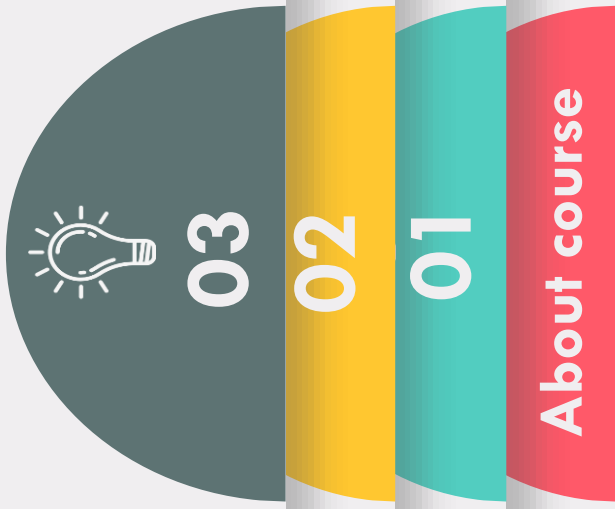


03 Step-by-Step NVivo Data Analysis Process

Step 3: Import Data

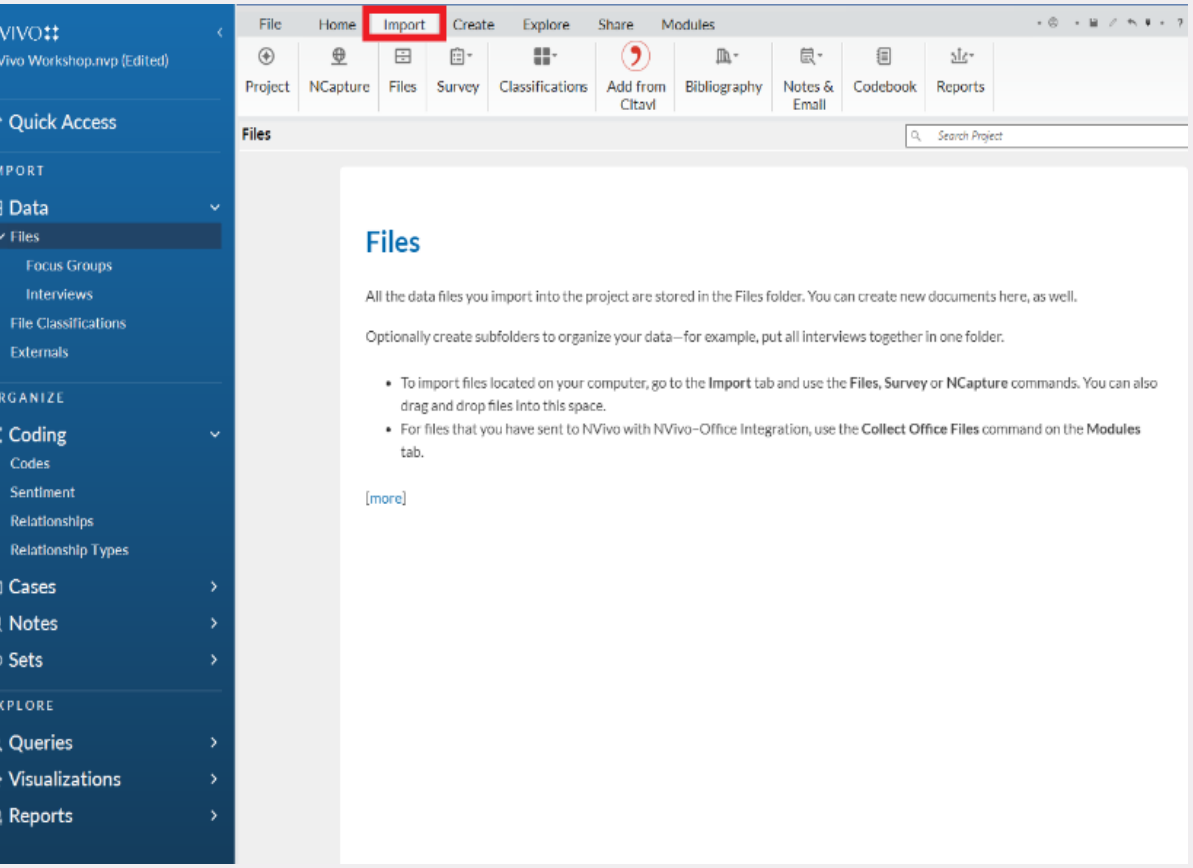
You can import a wide range of materials into NVivo, including word documents, PDFs, audio/video recordings, social media content, web pages, journal articles and survey data.

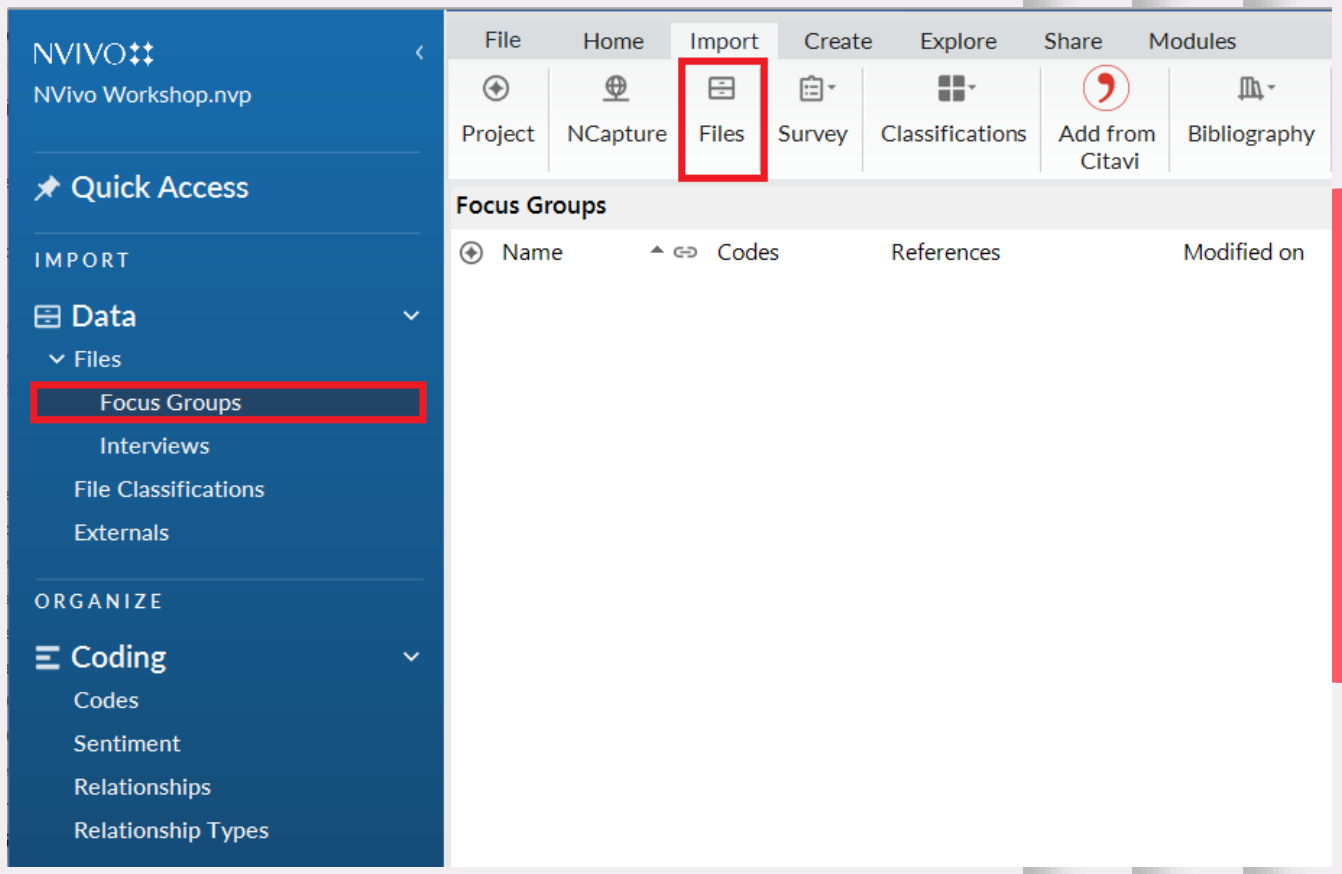
- Click on the folder you created (e.g., “Interviews”).
- Right-click inside the folder and select **Import > Files** (or use the toolbar's Import option).
- Browse your computer to find the data files (e.g., Word documents, PDFs, audio, or video files).
- Select the files and click **Import**.
- Review the imported files to ensure they are placed in the correct folder



03 Step-by-Step NVivo Data Analysis Process

Step 3: Import Data





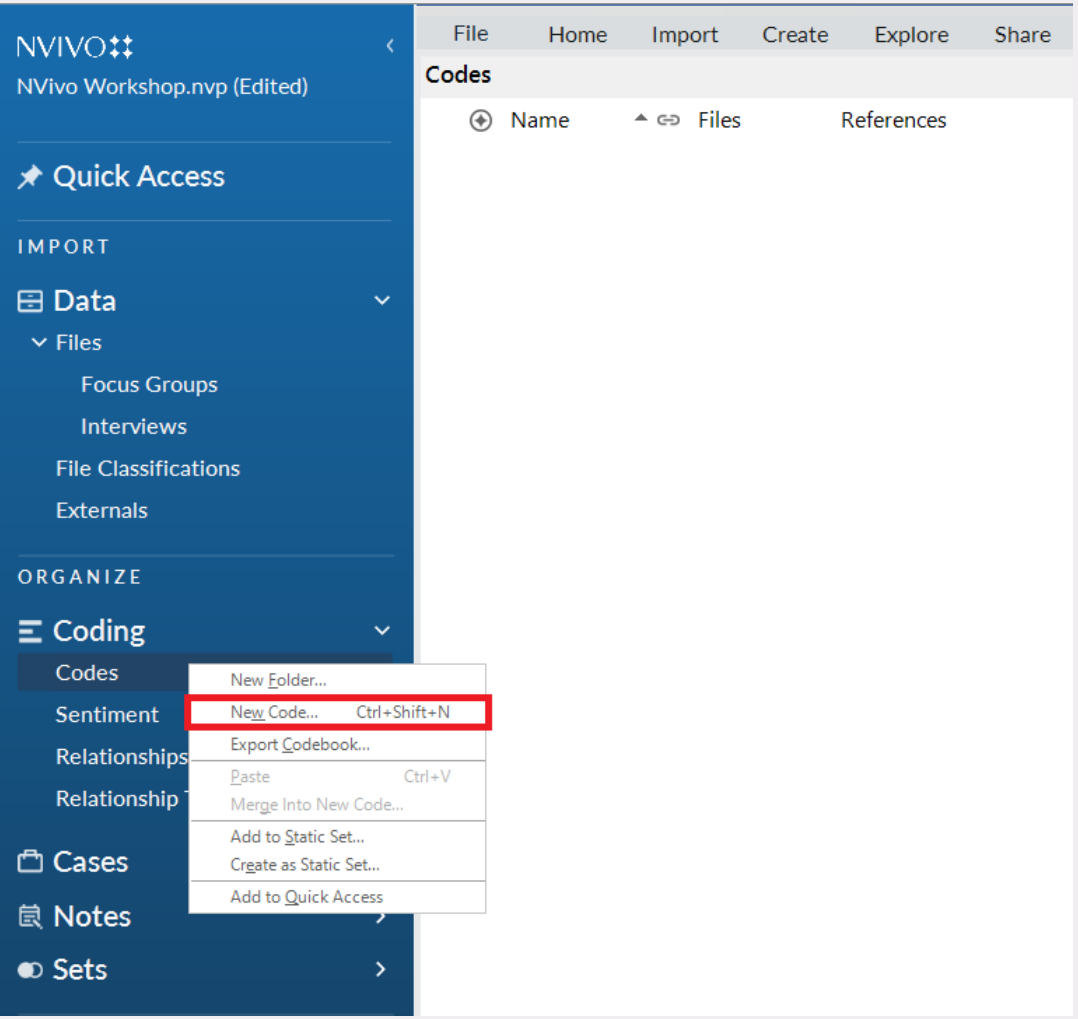
03 Step-by-Step NVivo Data Analysis Process

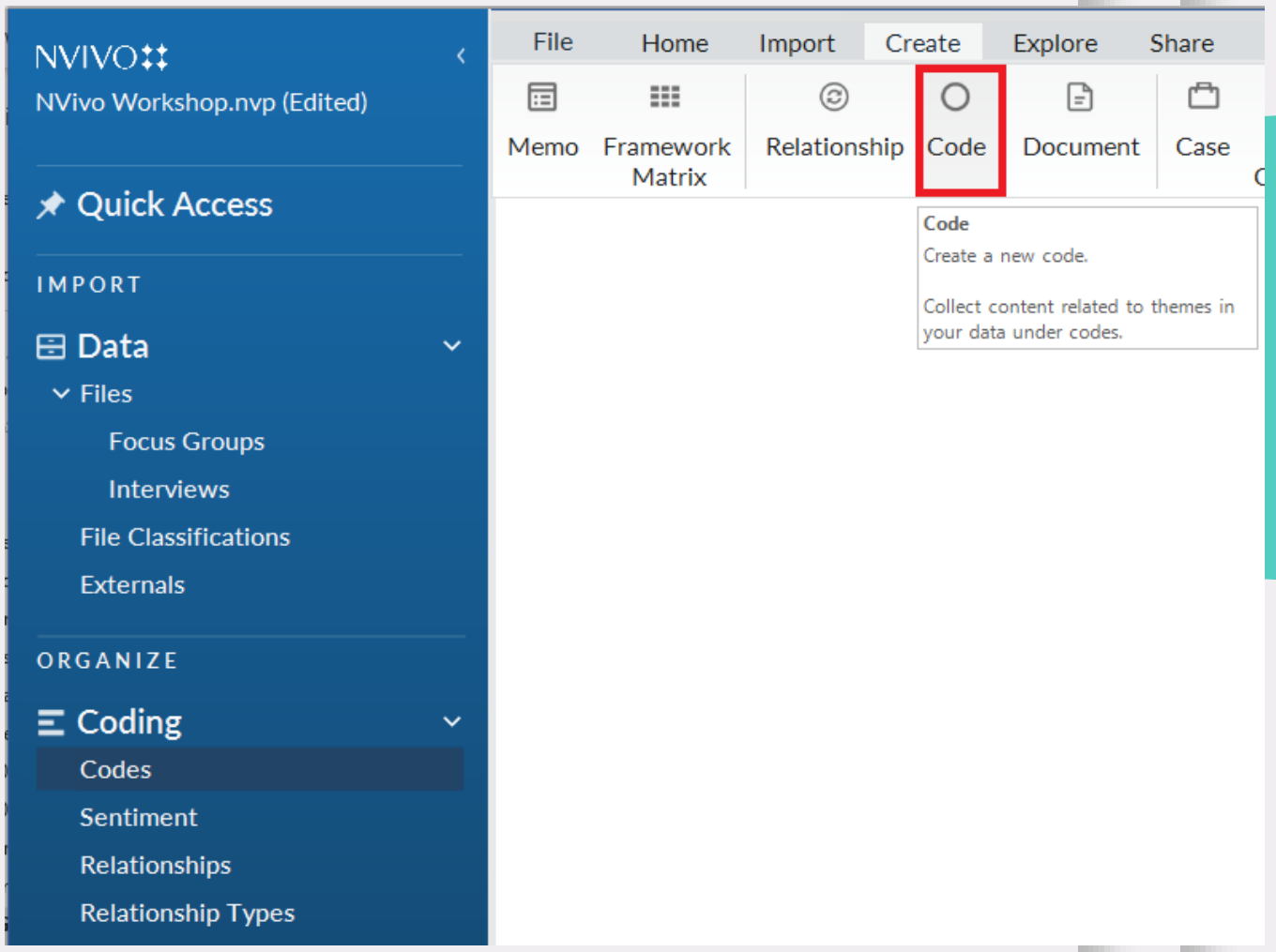
Step 4: Creating Codes and Coding

Codes act as containers to hold references to specific themes, topics, or ideas in your data. Accessible from the **Codes** section in the left menu, which includes folders like **Codes** and **Sentiment**.

03 Step-by-Step NVivo Data Analysis Process

1-From the Codes section on the left, **right click on the Codes folder** and **select New Code** or you can go to the **menu** and **select Code** to create a new code.

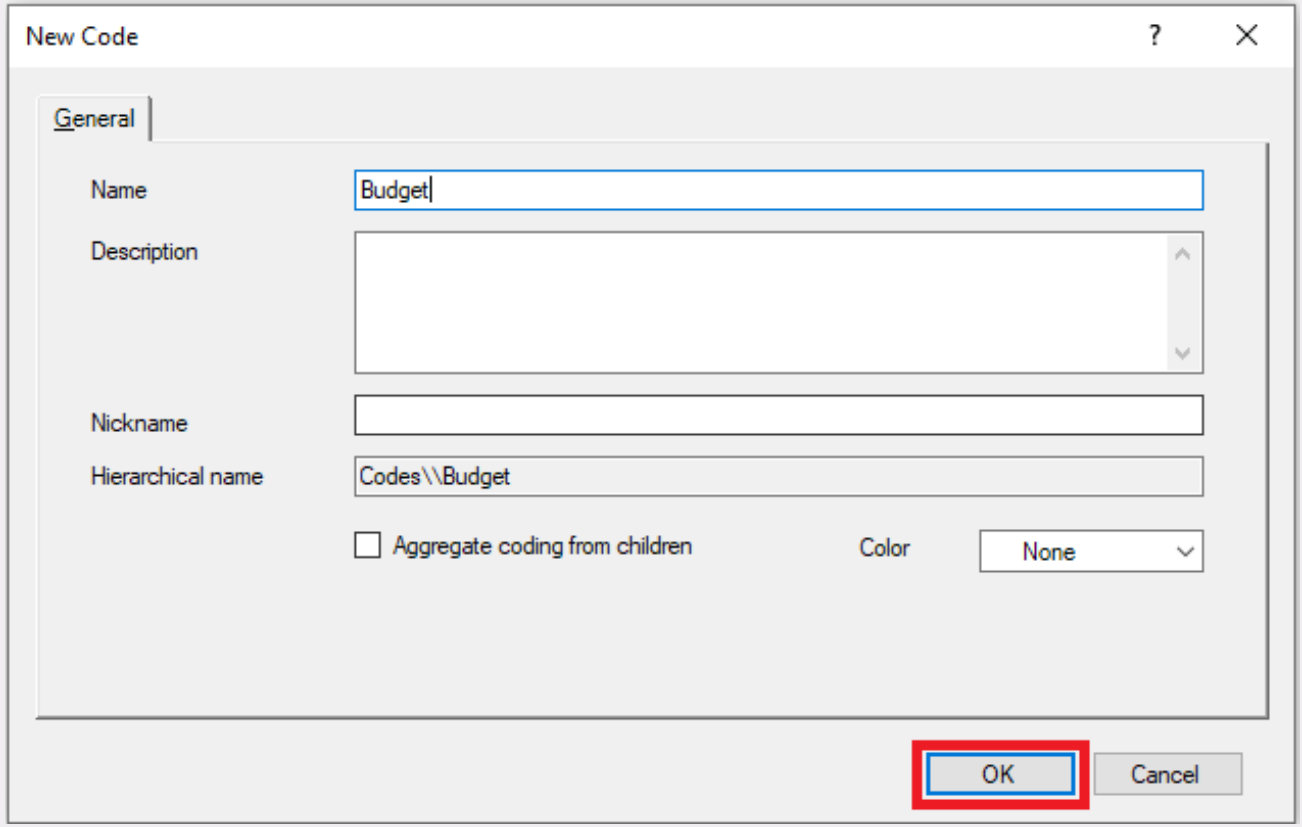




About course

03 Step-by-Step NVivo Data Analysis Process

2-Enter a name, a description and a nickname (optional) for your new code.

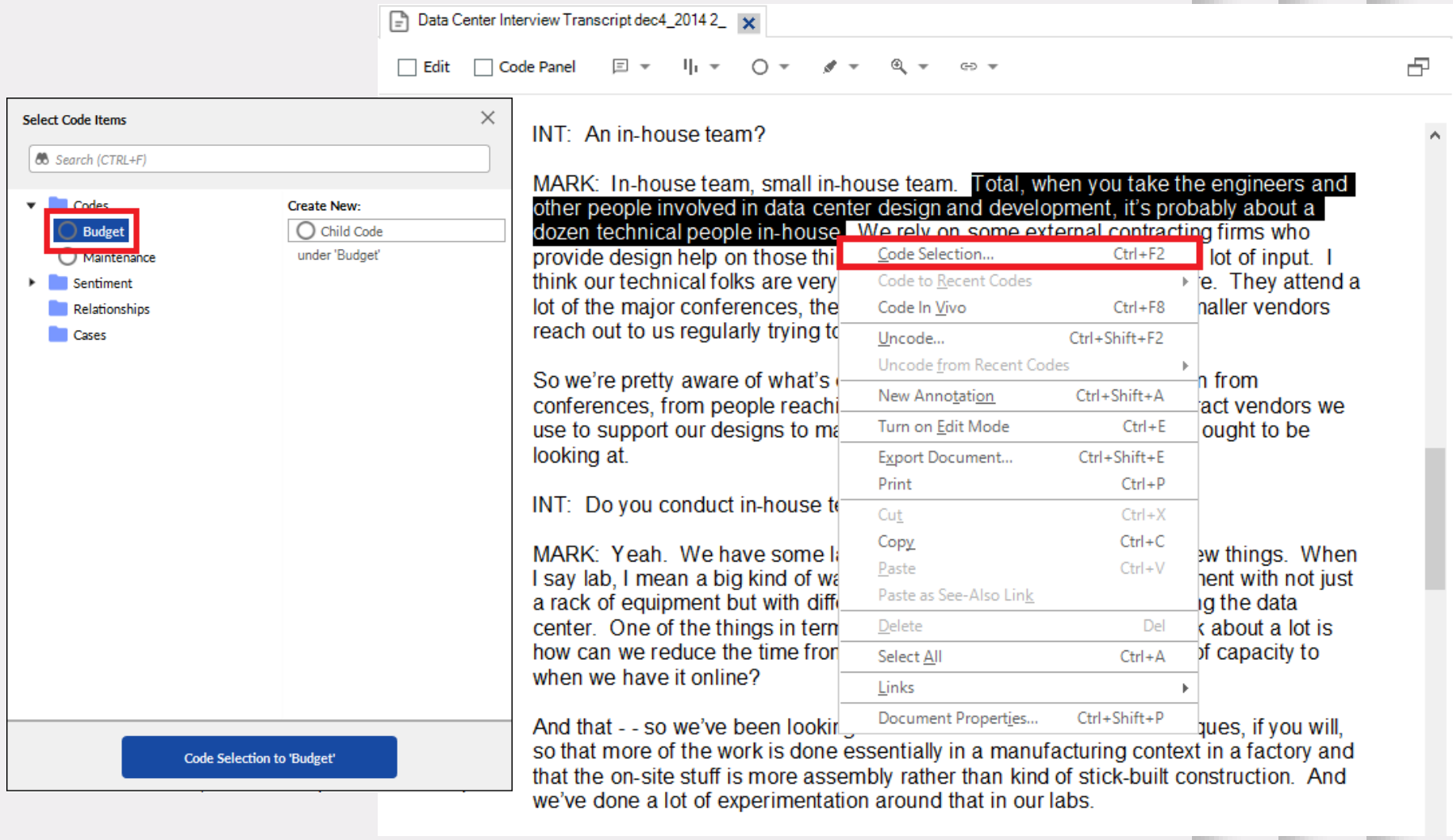


03 Step-by-Step NVivo Data Analysis Process

Open a file, highlight the text you want to code, right-click, and select **Code Selection**.

Coding:

Next, **select the code you want to use to code** this text, such as Budget, and then **click Code Selection to Budget**. Now it is coded.

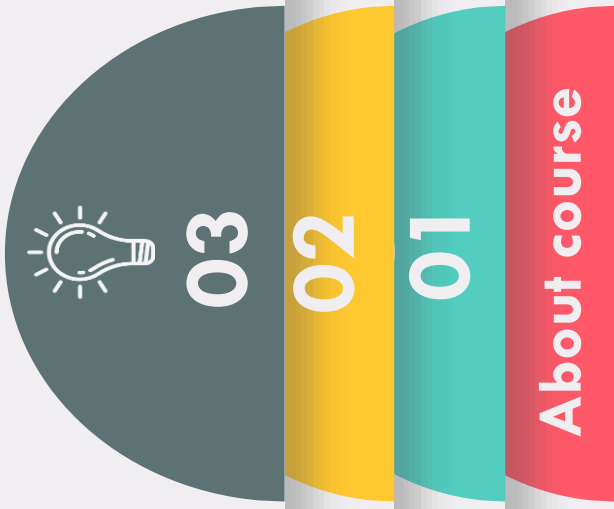


03 Step-by-Step NVivo Data Analysis Process

Step 5: Query Data

NVivo provides query tools to analyze coded data, helping to extract insights and identify patterns. Key query types include:

- **Text Search Query**: Finds specific words or phrases within the data.
- **Word Frequency Query**: Identifies and counts frequently occurring words.
- **Matrix Coding Query**: Compares relationships between codes and themes.



03 Step-by-Step NVivo Data Analysis Process

A-Text Search

Text search lets users find specific words or phrases in your project items.

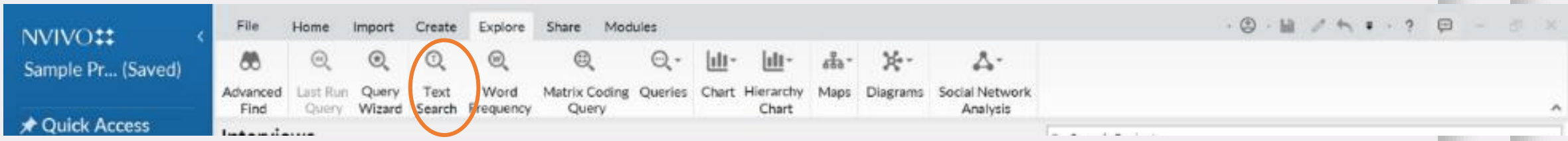
1.On the **Explore** tab, click **Text Search** or **Query Wizard**.

Choose **See where particular terms occur in content** if using the wizard.

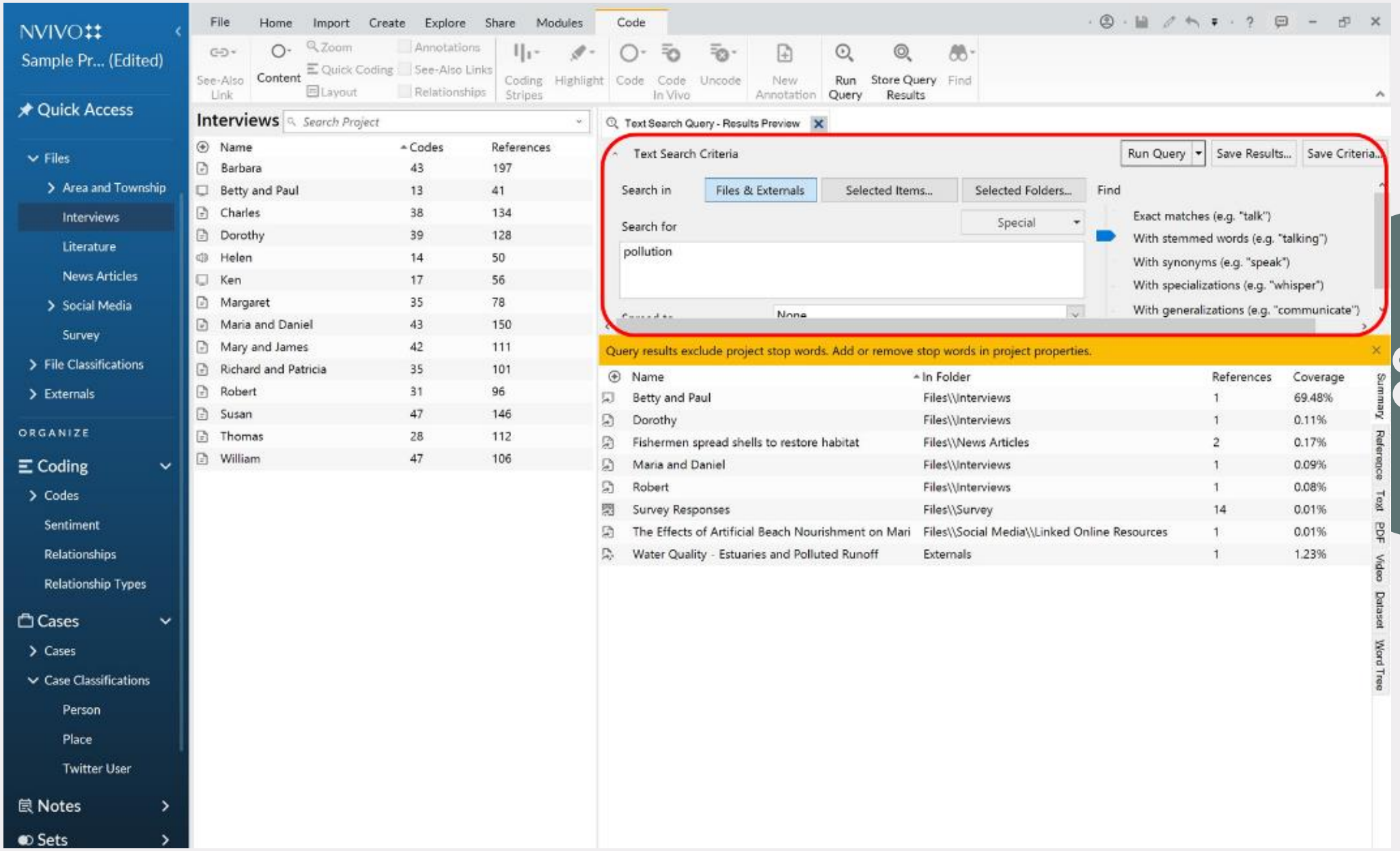
1.Enter the word or phrase you want to search for.

2.Select a **Find** option and choose where you want to search (Files and Externals/Selected Items/Selected Folders)

3. Run the query.



03 Step-by-Step NVivo Data Analysis Process



03 Step-by-Step NVivo Data Analysis Process

B-Word Frequency Query

Word frequency queries let users find the most frequently occurring words in your data.

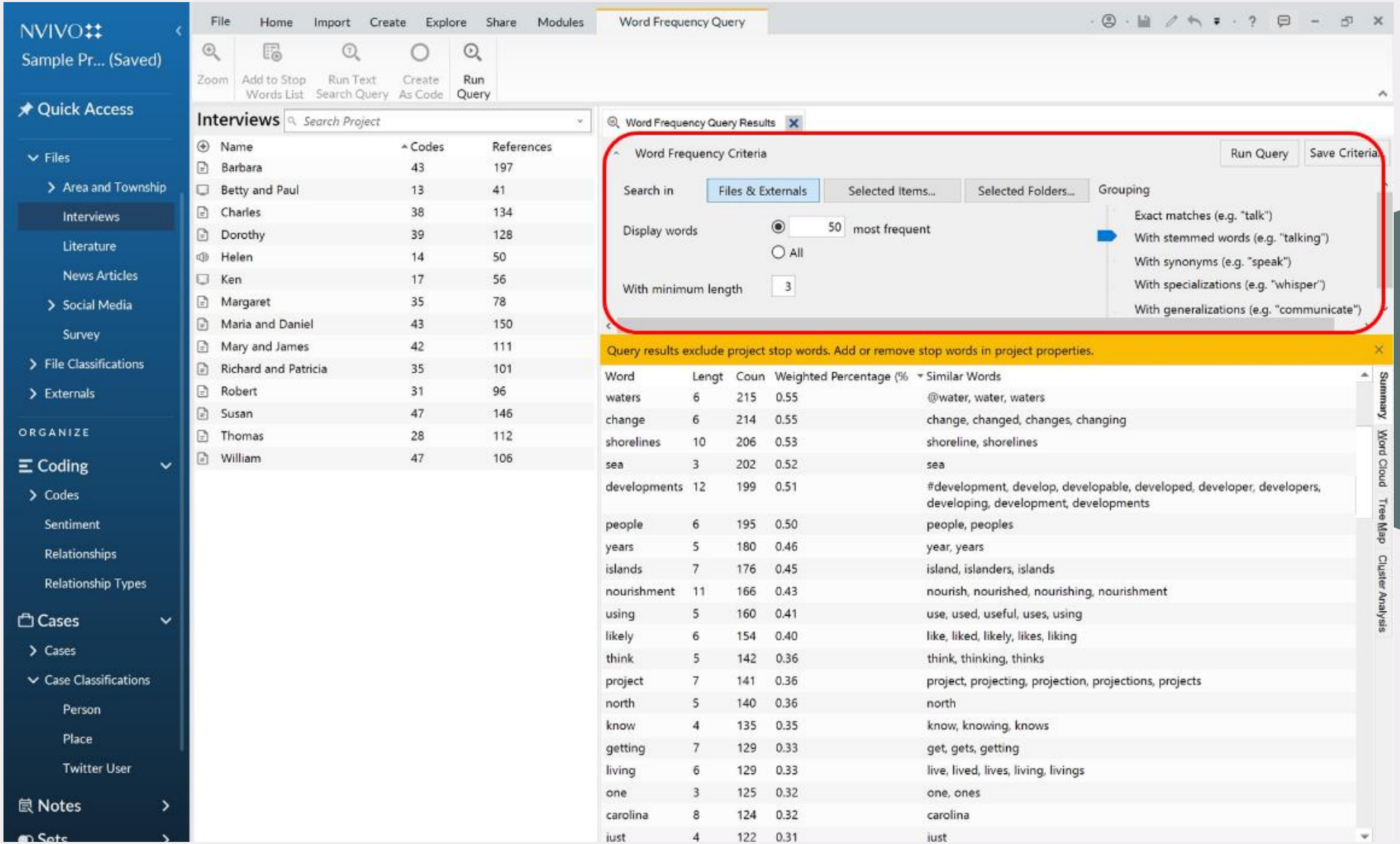
1.On the **Explore** tab, click **Word Frequency** or **Query Wizard**. Choose **Identify frequently occurring terms in content** if using the wizard.

2,Specify the terms you want to search for and choose where you want to search.

3,Run the query.



03 Step-by-Step NVivo Data Analysis Process



03 Step-by-Step NVivo Data Analysis Process

Step 6: Analyze Data

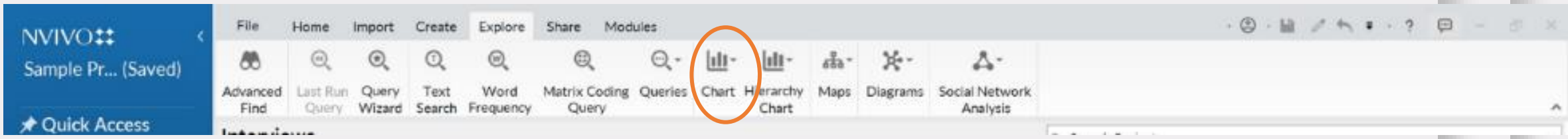
After coding and running queries, NVivo allows you to explore your data through visual tools like **charts**, **word clouds**, and **models**.

A/-Charts

Charts can be used to present or explore your coding, cases, or files.

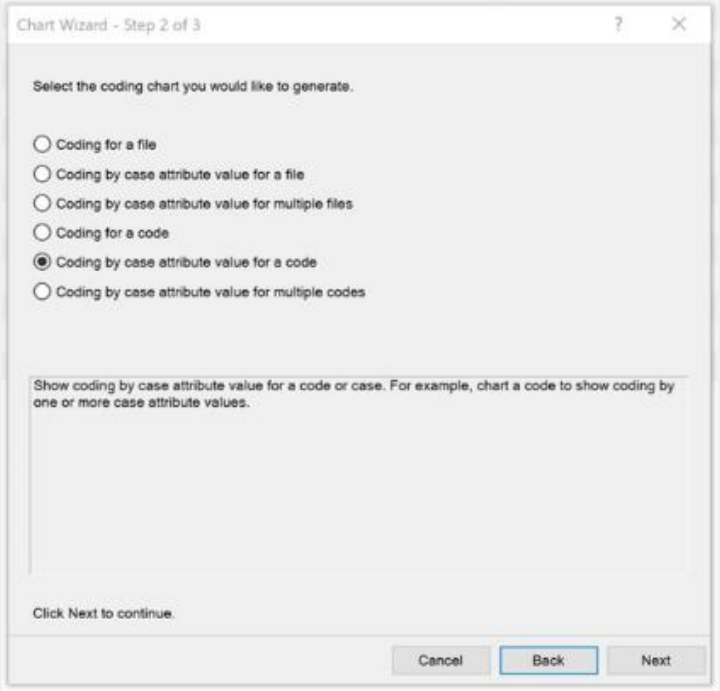
1. On the **Explore** tab, click **Chart**. The **Chart Wizard** appears.
2. Select the chart you would like to generate, and set the code and attributes for your chart.

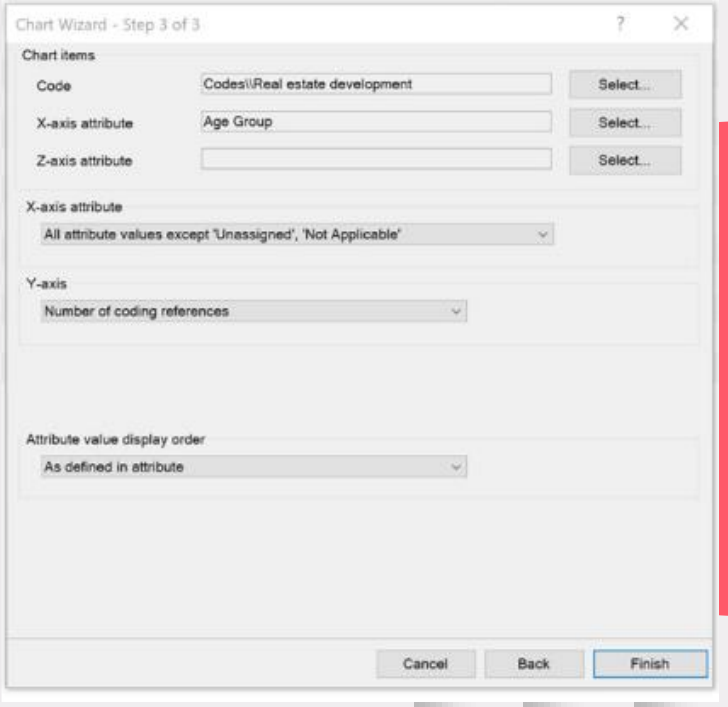
The example demonstrates how to create a chart showing Real estate development coding by age group.



03 Step-by-Step NVivo Data Analysis Process

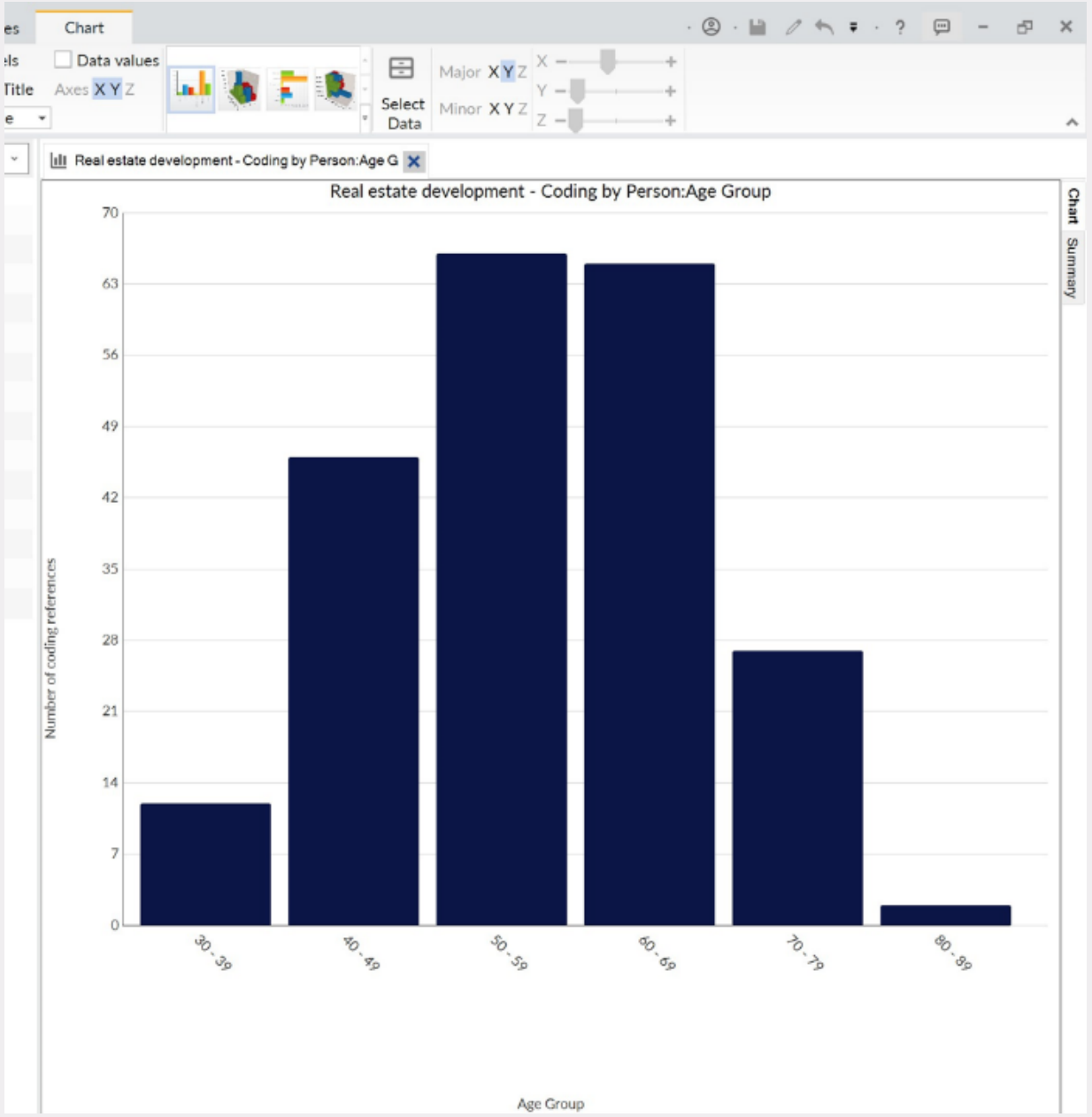






03 Step-by-Step NVivo Data Analysis Process

Click **Finish**.



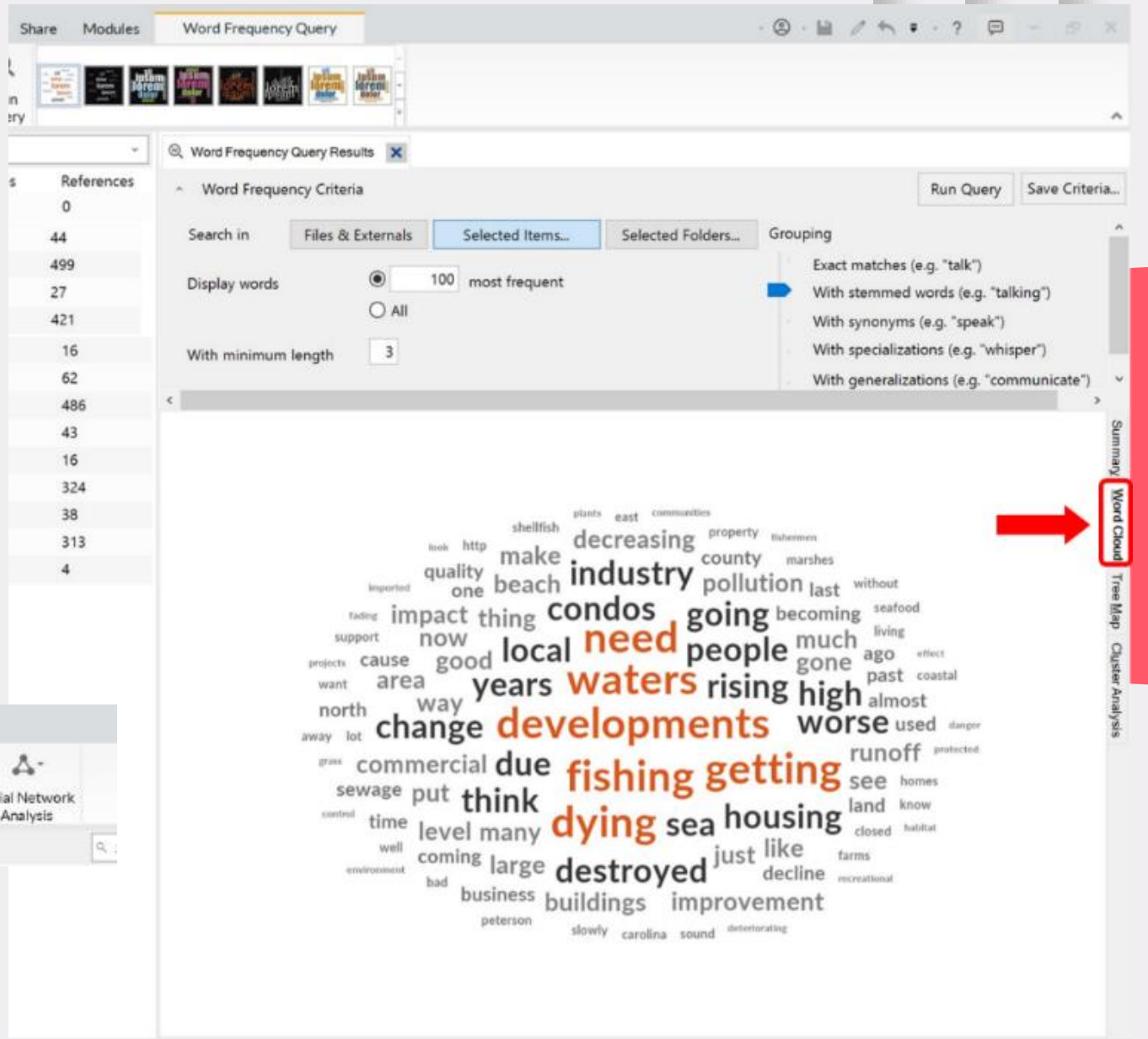
03 Step-by-Step NVivo Data Analysis Process

B/-Word Clouds

You can use NVivo to generate word clouds to visualize word frequency.

1. Run the **Word Frequency Query**.
2. In the Detail View of the query results, click Word Cloud.

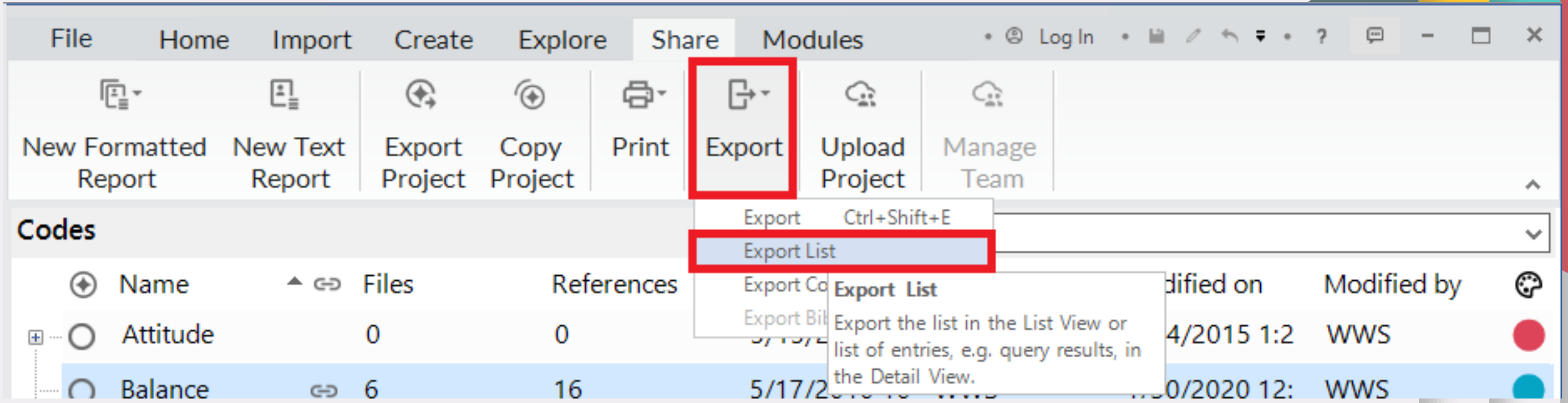




03 Step-by-Step NVivo Data Analysis Process

Step 7: Export Results

Once your analysis is complete, you can export results to Word, Excel, or other formats.

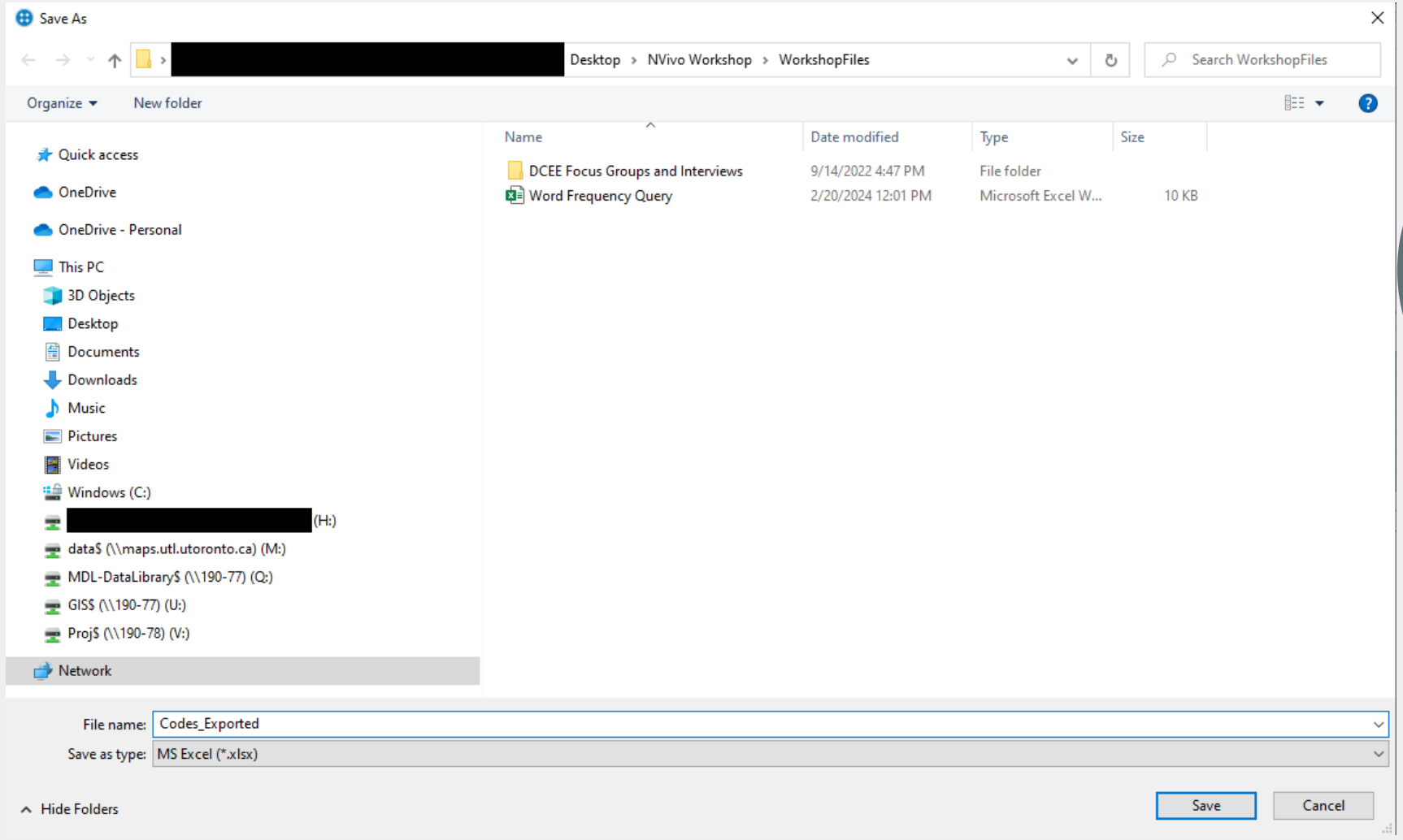


About course

03 Step-by-Step NVivo Data Analysis Process

Step 7: Export Results

Browse to your workshop folder, name your file or keep the default and click on Save.



Bibliography

- Bryman, A., & Cramer, D. (2011). Quantitative Data Analysis with IBM SPSS 17, 18 and 19: A Guide for Social Scientists (4th ed.). Routledge
- Dhakal, K. (2022). NVivo. Journal of the Medical Library Association, 110(2), 270-272. https://doi.org/10.5195/jmla.2022.1271
- Guerrero, H. (2019). Excel Data Analysis: Modeling and Simulation (2nd ed.). Springer. https://doi.org/10.1007/978-3-030-01279-3
- Islam, M. (2020). Data Analysis: Types, Process, Methods, Techniques and Tools. International Journal on Data Science and Technology, 6(1), 10-15. https://doi.org/10.11648/j.ijdst.20200601.12
- Okutan, P. (2023, May 4). Choosing the right tools for data analysis: A beginner's guide. Medium. https://medium.com/@pelinokutan/choosing-the-right-tools-for-data-analysis-a-beginners-guide-cc0e6f9e36f1
- Pival, P. (2023). A Gentle Introduction to Using NVivo to Analyse Qualitative Survey Data. International Federation of Library Associations and Institutions (IFLA).
- So, H. Y., Erbas Oz, U., Griffith, L., Kirkland, S., Ma, J., Raina, P., Sohel, N., Wolfson, C., & Thompson, M. E. (2020). Modelling complex survey data using R, SAS, SPSS and Stata: A comparison using CLSA datasets. arXiv. https://arxiv.org/abs/2010.09879
- Rahman, A., & Muktadir, M. G. (2021). SPSS: An imperative quantitative data analysis tool for social science research. International Journal of Research & Innovation in Social Science, 5(10), 300-302. Retrieved from https://rsisinternational.org/virtual-library/papers/spss-an-imperative-quantitative-data-analysis-tool-for-social-science-research/

Webography

- https://www.coursera.org/articles/data-analysis-tools)
- https://survivingresearch.com/how-to-use-nvivo-step-by-step-guide-2025/


Thank You!