

*Solutions Manual for Managerial
Accounting-Tools for Business
Decision Making Canadian 7th Edition
by Weygandt, Kimmel*

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Managerial Accounting

7th Canadian Edition

Chapter 1

Managerial Accounting

ARTIFICIAL INTELLIGENCE ACTIVITIES

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Disclaimer: Artificial intelligence platforms are rapidly evolving, with updates frequently being unexpectedly introduced. The AI prompts and content within this book have been designed and tested with the latest versions available at the time of writing, which include ChatGPT, Gemini (Formerly Bard), and Claude. Given the dynamic nature of these AI technologies, instructors are encouraged to verify the applicability and functionality of the sample prompts with the most current versions of AI tools. At best, the prompts and exercises will be applicable; at worst, the prompts and instructions can guide the creation of an AI classroom activity. By implementing this approach, you can ensure a cutting-edge learning experience and the assurance that the content is aligned with the latest developments in the field.

Activity 1: Managerial Accounting Case Study

Objective: Engage students in a practical application of managerial accounting principles to solve real-world business problems.

Description: Students are given a case study of Vista Outdoor Equipment Co., which specializes in manufacturing and selling high-end outdoor cooking equipment. The company faces issues related to cost allocation, budgeting, and performance evaluation. Students must analyze the situation, apply relevant accounting concepts, and propose strategic solutions.

Teaching Tips:

- **Diverse Issues:** Include multiple managerial accounting issues in the case study, such as cost-volume-profit analysis, make or buy decisions, and activity-based costing (ABC), to encourage a broad application of accounting concepts.
- **Digital Tools:** Promote the use of digital tools such as spreadsheets for financial calculations and graphical representations, enhancing data analysis and presentation.

Case Study Example: Vista Outdoor Equipment Co.

- **Background:** Vista Outdoor Equipment Co. is facing challenges with tight profit margins amid increasing competition and raw material costs. The company's traditional costing system may lead to potential mispricing and ineffective strategic decisions due to inadequate overhead cost allocation.

Sample Data for Case Study Analysis:

1. Cost Allocation Data

- **Current Costing System Data:**
 - Direct labor hours per product type.
 - Direct materials cost per product type.
 - Overhead costs lumped together without differentiation by activity.
- **Suggested Data for Activity-Based Costing (ABC):**
 - Activities Identified: Machine setup, quality control, material handling, and production processing.
 - Cost Drivers: Number of setups, inspection hours, material movement instances, machine hours.
- **Costs for Each Activity:**
 - Machine setup costs: \$100,000
 - Quality control costs: \$75,000

- Material handling costs: \$50,000
- Production processing costs: \$200,000
- Total overhead costs: \$425,000
- **Cost Driver Quantities:**
 - Number of setups: 100
 - Inspection hours: 1,500
 - Material movements: 250
 - Machine hours: 4,000

2. Budgeting Data

- **Current Sales and Cost Data:**
 - Current annual sales volume: 20,000 units
 - Average selling price per unit: \$150
 - Direct materials cost per unit: \$50
 - Direct labor cost per unit: \$30
- **Potential Scenarios for Flexible Budgeting:**
 - Scenario 1: Sales volume increase by 10%, material cost increase by 5%.
 - New sales volume: 22,000 units
 - New material cost per unit: \$52.50
 - Scenario 2: Sales volume decrease by 5%, material cost decrease by 10%.
 - Scenario 3: Sales volume remains the same, material cost increases by 15%.

3. Performance Evaluation Data

- **Current Performance Metrics:**
 - Profit margins per unit.
 - Return on investment (ROI).
 - Customer satisfaction rates.
- **Data Required for New Metrics:**
 - Customer retention rates.
 - Cost of quality as a percentage of total sales.

- Cycle time for product manufacturing.
- **Example Metrics to Track:**
 - Cost of Quality: Costs related to rework, returns, and quality assurance activities.
 - Cycle Time: Time from raw materials receipt to product delivery.

Sample AI Prompts for Students:

- *"Assess the cost-effectiveness of each production method for Vista, considering both direct and indirect costs. Utilize activity-based costing for your analysis."*
- *"Develop a flexible budget for the upcoming fiscal year that accommodates three potential revenue scenarios."*

Reflection Questions:

- "How did the accounting data influence your strategic decisions for Vista Outdoor Equipment Co.?"
- "What challenges did you face when applying managerial accounting techniques to this case?"

Peer Review Component:

Students will present their analytical findings and strategic recommendations in class. Feedback will focus on the feasibility and creativity of the solutions proposed, with peers and the instructor providing critiques.

Activity 2: Role-Playing Simulation: The Managerial Accountant

Objective: Enhance understanding of the managerial accountant's strategic and operational roles within a corporate setting through a practical simulation.

Description: In this simulation, students take on the roles of managerial accountants at Innovative Web Solutions, a company specializing in cybersecurity. The simulation spans several sessions, where students are tasked with preparing detailed cost analyses, participating in budget discussions, and effectively communicating financial data to non-accountant team members.

Teaching Tips:

- **Detailed Scenario Preparation:** Provide students with comprehensive background information about Innovative Web Solutions, detailing its industry position, financial health, and strategic challenges.
- **Role Assignments:** Distribute role cards that assign students to various positions within the company, such as CFO, financial analysts, departmental managers, and investor relations managers.
- **Realistic Financial Data:** Use the provided financial and operational data to ground the simulation in realistic managerial situations and decisions.

Example Data for Innovative Web Solutions:

- **Company Overview:**
 - **Industry:** Cybersecurity
 - **Annual Revenue (2023):** \$25 million
 - **Projected Growth (2024):** 15%, due to new product launches
- **Financial Snapshot:**
 - **Assets:** Cash: \$2 million, Receivables: \$5 million, Inventory: \$1 million
 - **Liabilities:** Accounts Payable: \$4 million, Short-term Loans: \$2 million, Bonds: \$10 million
 - **Equity:** Stock: \$5 million, Retained Earnings: \$2 million
- **Budgeting Information:**
 - **R&D:** Current budget \$4 million, proposed increase of 25%
 - **Marketing:** Current budget \$3 million, proposed increase of 30%
 - **Operations:** Current budget \$5 million
- **New Product Details (SecureGate):**
 - **Development Costs:** \$1 million spent, an additional \$3 million needed

- **Expected First-Year Revenue Post-Launch:** \$10 million
- **Projected Cost of Goods Sold:** 40% of revenue

Sample AI Prompts for Students:

- *"Analyze the cost-benefit of increasing the R&D budget by 25% in the context of expected revenue from the new product SecureGate."*
- *"Develop a flexible marketing budget that can adjust to sales volume changes of $\pm 10\%$ and present how these changes affect the overall financial strategy."*
- *"Prepare a detailed presentation for the upcoming shareholder meeting that outlines the financial forecasts for 202X, focusing on new investments and projected returns."*

Reflection Questions:

- **Strategic Role:** How did the role of the managerial accountant impact strategic decisions and budget allocations in your simulation?
- **Communication Challenges:** What difficulties did you encounter in explaining financial data and budget needs to non-financial managers?

Peer Review Component:

- **Feedback Sessions:** Students will present their analysis and recommendations during class sessions. Feedback will focus on the clarity, analytical depth, and strategic alignment of their presentations, with peers and instructors critiquing the practicality and creativity of their financial solutions.

Activity 3: Managerial Accounting Ethics Forum

Objective: Explore ethical considerations in managerial accounting to understand the impact of ethical decision-making on business integrity and sustainability.

Description: Students engage in a forum discussing ethical dilemmas faced by managerial accountants. The discussion is based on hypothetical scenarios where ethical and financial interests conflict, such as cost misreporting or manipulating earnings before a funding round.

Teaching Tips:

- **Sample AI Prompts for Students:**

"Debate the ethical implications of allocating overhead costs in ways that could mislead stakeholders about product profitability."

"Discuss the potential long-term consequences for a company that decides to underreport environmental cleanup costs to improve its financial appearance."

- Provide scenarios that are complex enough to generate debate and require thoughtful consideration of ethical principles in accounting.
- Guide the discussion by posing provocative questions and playing devil's advocate to challenge the students' responses.

Reflection Questions:

- What principles did you rely on to navigate the ethical dilemmas presented in the scenarios?
- How would you handle real-world situations similar to those discussed in the forum?

Peer Review Component:

Students provide feedback on their peers' arguments and ethical reasoning during the forum, emphasizing respect for diverse viewpoints and the quality of ethical argumentation.

Data Analysis Technology Bootcamp: Instructor Guide

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I. How to Use this Guide

This document has been created to provide information and guidance pertaining to the Data Analysis Technology Bootcamps. We provide instructions on how to view and assign the bootcamps in a few different ways, ideas to consider for how to use the bootcamps, as well as a detailed list of the topics covered for each technology tool and the estimated time it would take a student to complete each module. Additionally, we know that technology is ever-evolving and that there are limitations when it comes to usage on specific device types. Therefore, we have provided a section dedicated to information on how you and your students go about gaining access to these tools. Please note that as a publisher, Wiley cannot provide any technology licenses.

For additional questions about WileyPLUS, please reach out to your local Digital Learning Executive and Customer Success Manager.

II. How to Access these Technologies

We recommend that you consider asking your college's IT staff for guidance and to know what functionalities are included in their virtual servers as well as when virtual server updates will happen.

A. Excel

Most students have all the functionalities needed through Office 365. To use the Power Query Excel tool, MAC users will need to use the Boot Camp Assistant to install the Microsoft Windows operating system. While operating in the Microsoft Windows operating system, they will have all the Power Query functionality. If they do not have Boot Camp, they will need access to a virtual server or a PC computer in the university computer labs.

Check your virtual server to make sure that it has Excel Pro 2019 or the current Office 365 version. These versions provide the needed Power Query functionality for viewing column statistics.

B. Power BI Desktop

It can be downloaded for free by both instructors and students, no license is required. Power BI Desktop runs in a Microsoft Windows operating system. MAC users will need to use the Boot Camp Assistant to install the Microsoft Windows operating system and then Power BI Desktop. An alternative is to have access to a virtual server or a PC computer in the university computer labs.

C. Tableau

Instructors can apply for a semester license and then pass the codes to their students, or students individually can apply for a license on their own for a year license. Instructors need to clarify which approach will be used in their syllabus. Getting the approval may take a few days, so start early, and work with your IT staff if it will be on a virtual server.

- Tableau: <https://www.tableau.com/academic/teaching>

D. Tableau Public

It is a possible solution but has the following significant restrictions: students' work is publicly shared, and they will not be able to download their solutions (they could take a screenshot which they could submit as evidence of their work). Tableau Online (now called Tableau Cloud) does not have the same functionality as a downloaded Tableau student license or a university server license.

E. Alteryx

Can be downloaded for free by both instructors and students. Like Power BI, Alteryx runs on a Windows Operating system. MAC users will need to have an alternative solution if they do not have Bootcamp to be able to run Alteryx, such as a college server, or a PC computer in a computer lab. Alteryx works great on a virtual server, and they are willing to work with your

IT department to help with the installation. Alteryx is planning to trial a cloud version of their academic access to Alteryx within the next year.

- Alteryx: <https://www.alteryx.com/sparked/educators>

F. SQL Lite

Students can access the website here: <https://sqliteonline.com/>

G. MS Access

It can be downloaded for free by both instructors and students, no license is required. MS Access runs in a Microsoft Windows operating system.

G. Mac Users

The Power Query functionalities in Excel and using Power BI Desktop may be a challenge if you do not have a dual operating system (both Mac OS and Microsoft Windows). If your college has this software loaded on a virtual server or on PCs in the university labs, you will be able to access both the Power Query tools in Excel and Power BI Desktop. Another option for Mac users is to join Microsoft's Insider or Beta channel for access to the same Power Query functionality as Windows users.

III. General Bootcamp Format

Each of the data analysis technology bootcamps follow the same general structure:

- Overview Video
- 10+ Topics ○ 1 How-To Video per Topic ○ 5-10 Multiple Choice questions per topic ○ 1 Application Exercise per topic
 - 1-2 Follow up Questions to the Application Exercise ○ 1 Solution Walkthrough video per topic:
 - The solution walkthrough videos will only automatically appear to students as question feedback to the 1-2 follow up questions of the Application Exercise. If these questions are removed, the solution walkthrough videos will not be available to students without manual grading.

IV. Where to Find and How to Assign

Wiley's Data Analysis Technology Bootcamps live within WileyPLUS. They can be found in the following US courses (represented below are the latest editions):

- Dzurinin, Data and Analytics in Accounting 1e
- Savage, Accounting Information Systems 1e
- Farmer, Cost Accounting 1e
- Johnson, Auditing 2e
- Kieso, Intermediate Accounting 19e
- Weygandt, Managerial 10e
- Weygandt, Financial 12e
- Weygandt, Financial and Managerial Accounting 5e
- Weygandt, Accounting Principles 15e
- Kimmel, Financial Accounting 10e
- Kimmel, Accounting 8e
- Kimmel, Survey of Accounting 3e
- Kimmel, Financial Accounting for Managers 1e
- Rainer, Introduction to Information Systems 10e

They can be found in the following Canadian courses:

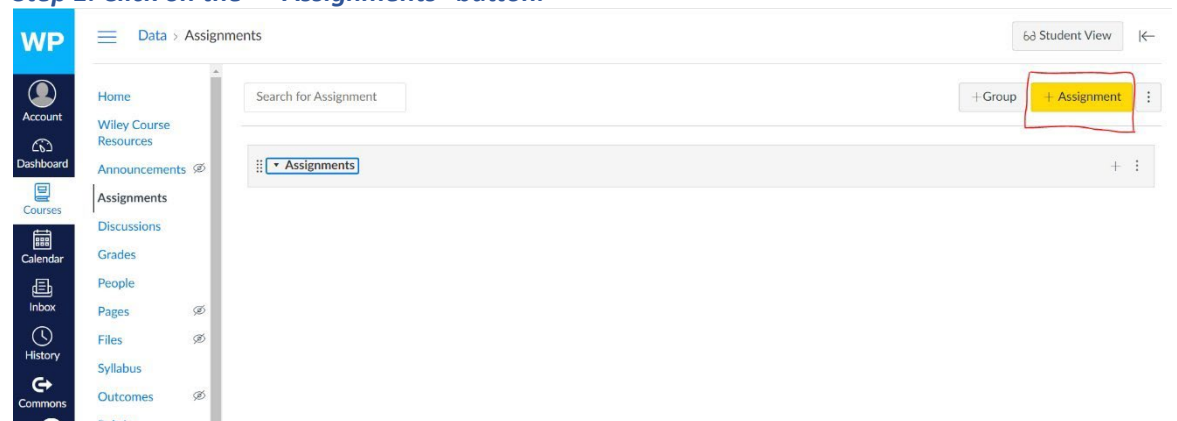
- Moroney, Auditing 4CE
- Kieso, Intermediate Accounting 14CE
- Burnley, Financial Accounting 3CE
- Weygandt, Managerial Accounting 6CE
- Kimmel, Financial Accounting 9CE
- Weygandt, Principles 9CE
- Rainer, Introduction to Information Systems 5CE
- Weygandt Managerial 6CE with Burnley, Understanding Financial Accounting 3CE

There are three ways you can access and assign the data analysis technology bootcamps. The following sections outline each of the three ways in detail.

A. Preset from Wiley Library

Within the Wiley Library of assignments, you can easily assign the full bootcamp. To access the Wiley Library, follow the steps below.

Step 1: Click on the “+ Assignments” button.



Step 2: Click on “Add a Question Set.”

WP Home
Wiley Course Resources
Account
Dashboard
Courses
Calendar
Inbox
History
Commons
Get HELP - SOS

Announcements
Assignments
Discussions
Grades
People
Pages
Files
Syllabus
Outcomes
Rubrics
Quizzes
Modules
BigBlueButton
Collaborations

Points 0
Assignment Group Assignments
Display Grade as Points
☐ Do not count this assignment towards the final grade
Submission Type WileyPLUS
Add a Question Set
Click the button above to add a WileyPLUS Question Set
☐ Load This Tool In A New Tab
Group Assignment
☐ This is a Group Assignment

Step 3: Click on “Wiley Library”

Link Resource from External Tool

Select a question set
You can start with an existing question set or create a new one from scratch

MY SETS (4) **WILEY LIBRARY (48)** INSTITUTION LIBRARY (0)

Search my question sets + NEW QUESTION SET

Question Set Name	Questions	Policy Profile	Created	
Ch 8: Continuing Case	2	Homework	Sep 23, 2022	USE SET

Step 4: Locate the Data Analysis Technology Bootcamps by scrolling all the way to the end of the list.

Link Resource from External Tool

Ch 10: Homework	11	Homework	USE SET ▼
Ch 10: Homework - Auditing	4	Homework	USE SET ▼
Ch 10: Homework - Financial Accounting	5	Homework	USE SET ▼
Ch 10: Homework - Managerial Accounting	5	Homework	USE SET ▼
Data Analysis Technology Bootcamp: Excel	41	Homework	USE SET ▼
Data Analysis Technology Bootcamp: Power BI	25	Homework	USE SET ▼
Data Analysis Technology Bootcamp: Tableau	30	Homework	USE SET ▼
Roadtrip Nation x WileyPLUS	24	Homework	USE SET ▼

Step 5: Click on “Use Set” and select “Use.” This allows you to assign the full bootcamp and make your typical assignment adjustments like due dates, making it available and visible to your students, etc.

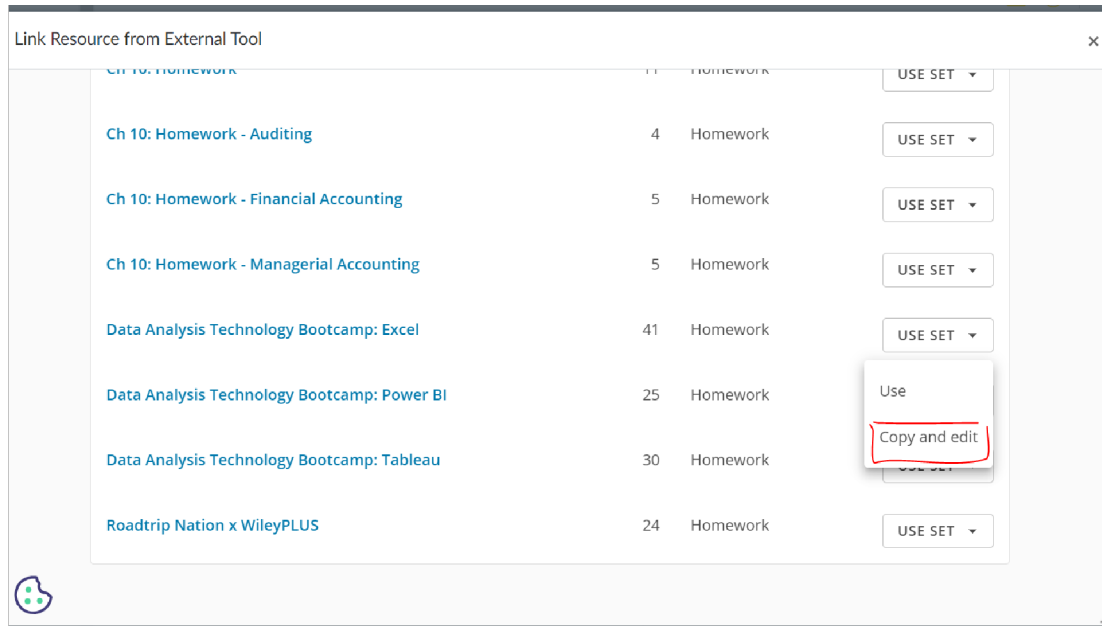
Link Resource from External Tool

Ch 10: Homework	11	Homework	USE SET ▼
Ch 10: Homework - Auditing	4	Homework	USE SET ▼
Ch 10: Homework - Financial Accounting	5	Homework	USE SET ▼
Ch 10: Homework - Managerial Accounting	5	Homework	USE SET ▼
Data Analysis Technology Bootcamp: Excel	41	Homework	USE SET ▼
Data Analysis Technology Bootcamp: Power BI	25	Homework	Use Copy and edit
Data Analysis Technology Bootcamp: Tableau	30	Homework	USE SET ▼
Roadtrip Nation x WileyPLUS	24	Homework	USE SET ▼

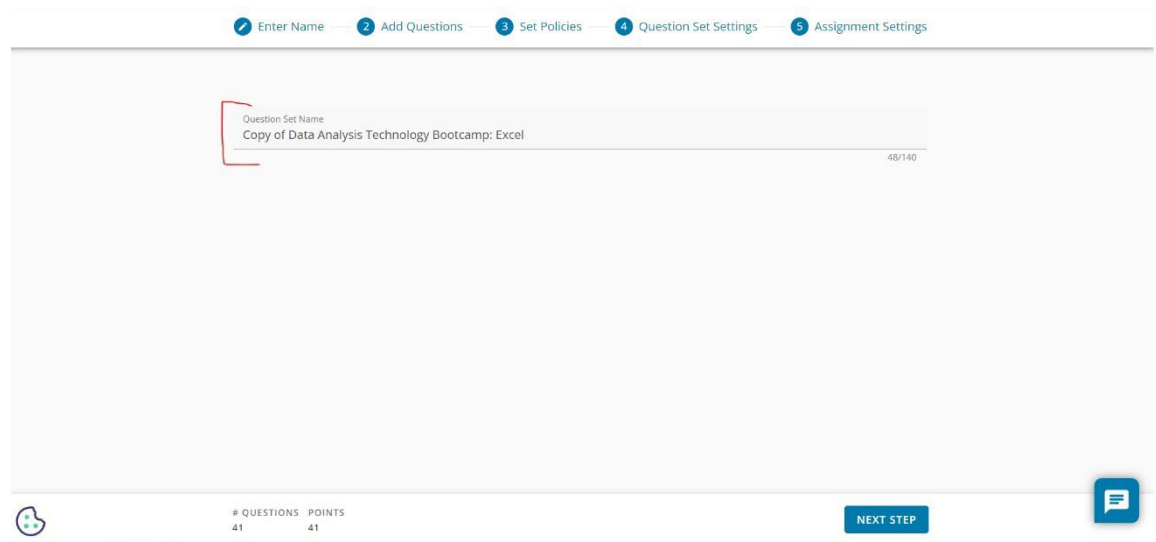
B. Editing

You may also want to use the Data Analysis Technology Bootcamps, but edit portions or parts to more align with your course objectives. Just like any other pre-created assignment in the Wiley Library, you are able to copy and edit the bootcamps as well following the steps below.

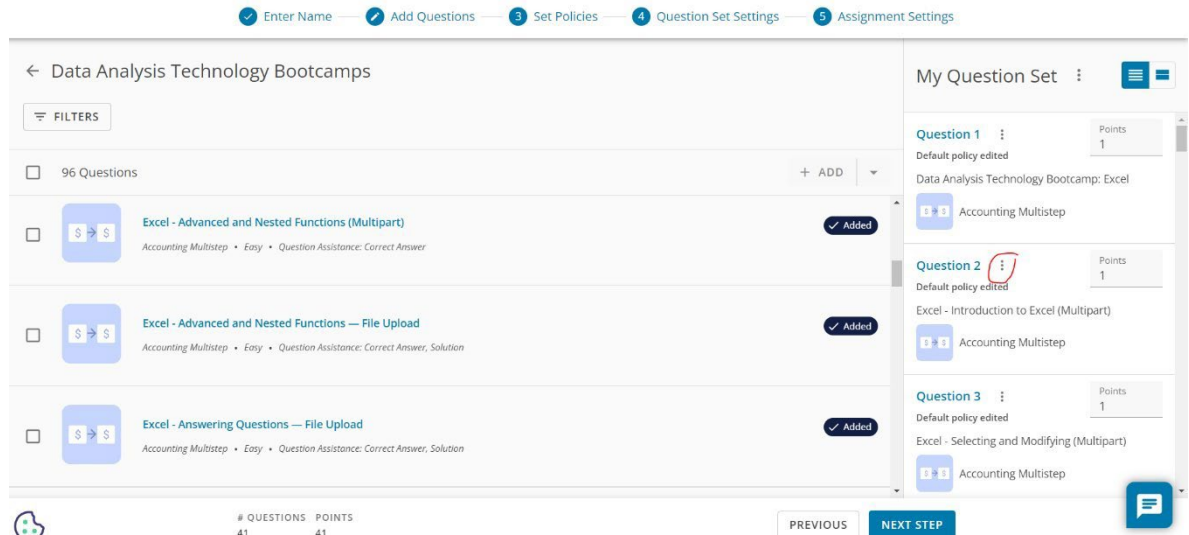
Step 1: When in the Wiley Library, after locating the Data Analysis Technology Bootcamp you want to assign, click on “Use Set” and “Copy and edit.”



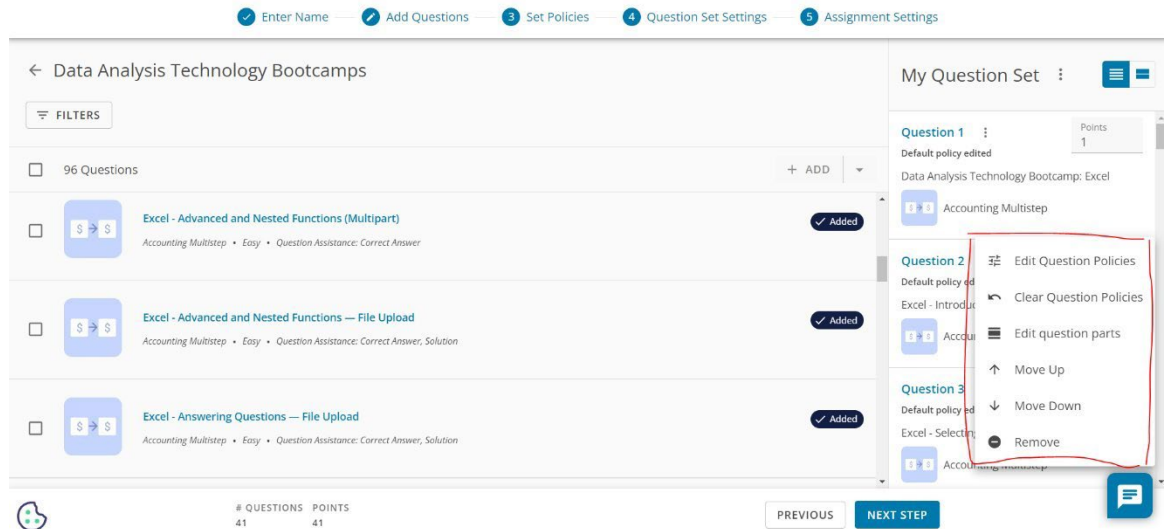
Step 2: You will be prompted to edit the name of the assignment if you choose and then click on “Next Step.”



Step 3: Click on the three dots to access the question settings.



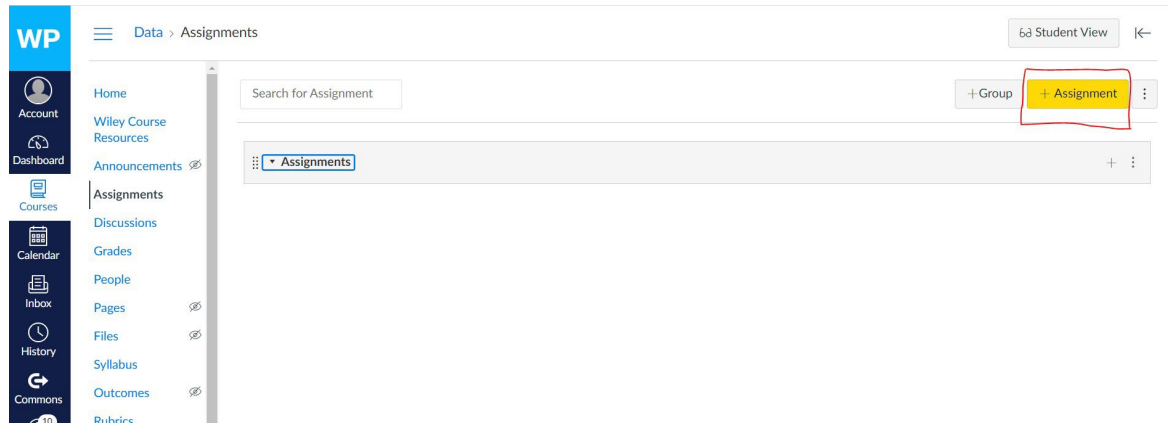
Step 4: Upon clicking on the three dots, you will see a menu of options to further edit the question. You can edit question policies, clear policies, edit specific question parts (like removing specific multiple-choice questions within that set), move the questions, or completely remove the question altogether.



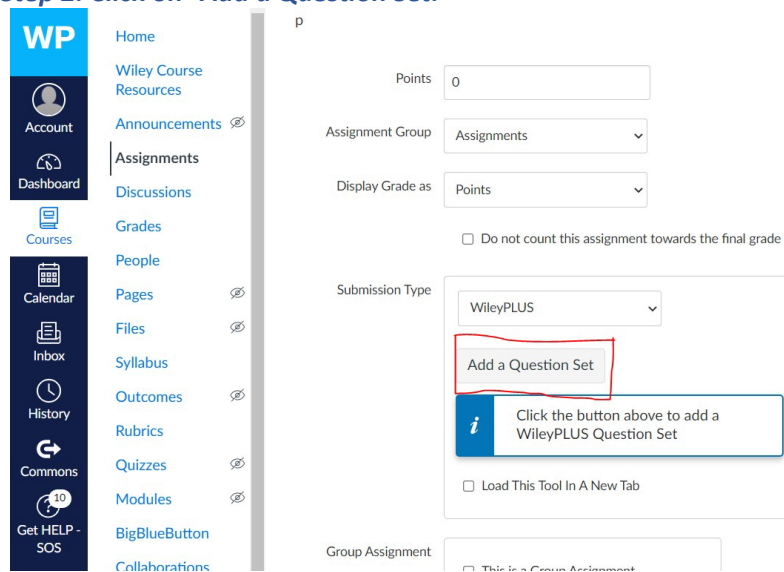
C. A la Carte (customizability of Interactive tutorial)

There may be instances where you want to assign a specific module (topic) within the bootcamp as opposed to assigning the full bootcamp. To do this, you would set up the bootcamp like any other assignment. Use the following steps as a guide.

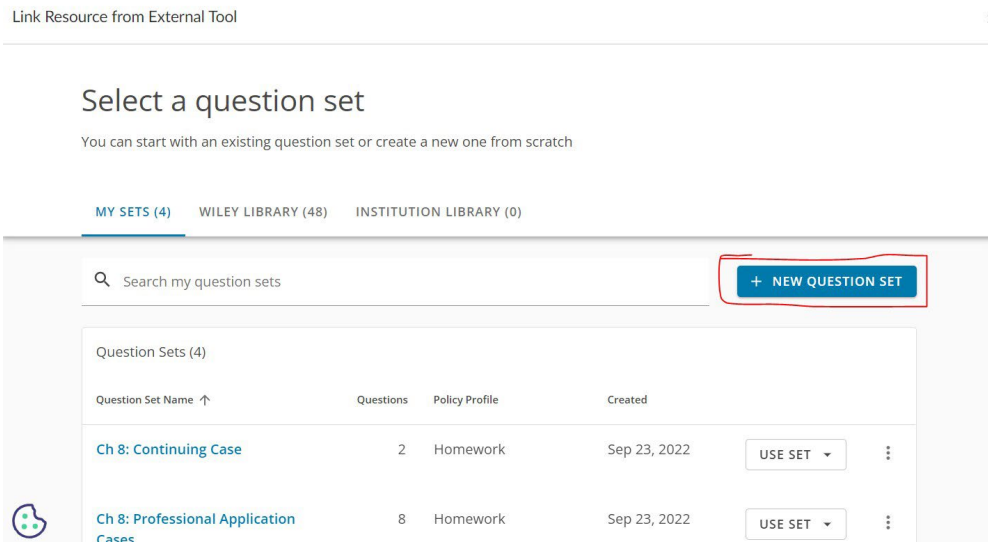
Step 1: Click on the “+ Assignments” button.



Step 2: Click on "Add a Question Set."



Step 3: Click on "+ New Question Set."



Step 4: You will be prompted to provide an assignment name. Upon doing so, click on “Next Step.”

1 Enter Name — 2 Add Questions — 3 Set Policies — 4 Question Set Settings — 5 Assignment Settings

Question Set Name
0/140

QUESTIONS POINTS
— —

NEXT STEP

Step 5: Scroll all the way to the bottom and locate the “Data Analysis Technology Bootcamps” section and click on the link.

1 Enter Name — 2 Add Questions — 3 Set Policies — 4 Question Set Settings — 5 Assignment Settings

Question Bank

FILTERS

Ch 6 Analysis: Information Modeling	230 questions	▼
Ch 7 Analysis: Data Exploration	183 questions	▼
Ch 8 Interpreting Data Analysis Results	203 questions	▼
Ch 9 Communicating Data Analysis Results	244 questions	▼
Ch 10 Recent Data and Analyses Developments in Accounting	176 questions	▼
Roadtrip Nation x WileyPLUS	24 questions	▼
Data Analysis Technology Bootcamps	96 questions	▲
Data Analysis Technology Bootcamps (96 questions)		

My Question Set

You haven't added any questions

QUESTIONS POINTS
— —

PREVIOUS NEXT STEP

Step 6: In order to see the questions associated to one specific technology, click on the “Filters” button.