

# Activity: Design a data lifecycle plan



## Activity Overview

---

In this activity, you'll design an effective data lifecycle plan for a cloud-based business.

The data lifecycle is a foundational concept for cloud data analysts. The data lifecycle has five key stages: capture, manage, analyze, archive, and destroy. Cloud data analysts must understand each stage of the data lifecycle to build efficient data processing systems, perform accurate data analysis, and keep data safe and compliant.

Be sure to complete this activity before moving on. The next course item will quiz your comprehension, and then you'll be provided with a completed exemplar to compare to your own work.

## Scenario

---

Review the following scenario. Then, access the supporting materials before moving on to the next course item to take the quiz.

You've been hired as a cloud data analyst at TheLook eCommerce, a global company that sells clothing products through physical stores and digital channels, including their own website, mobile app, and various third-party social media apps. TheLook eCommerce has been growing quickly thanks to the company's wide variety of clothing styles, innovative practices, and commitment to ethical and sustainable sourcing.

To handle the rapidly growing amount of data they need to analyze, TheLook eCommerce data team has prioritized the development of a comprehensive data lifecycle plan that ensures secure and effective data management. To support that goal, you recently met with key stakeholders in the merchandising and marketing departments. During that meeting, the stakeholders identified key business questions they need answered to make effective data-driven decision-making. They also shared their current data usage patterns and concerns.

Based on that information, you've been asked to identify recommendations to improve the current data lifecycle plan. The goal for that plan is to ensure data is effectively managed throughout its lifecycle and that data is accessible to the stakeholders for decision-making.

First, you'll align the stakeholders' key business questions with the desired outcomes. Doing so will clarify what specific data you need to gather and analyze to address their needs.

Next, you'll use the stakeholder information to identify the specific data you need to gather and analyze. This task will enable you to recommend suitable data sources, identify potential data gaps, and suggest any necessary transformations to fulfill the stakeholders' needs.

Finally, you'll review the stakeholder feedback and outline recommendations for data management, analysis, usage, and eventual destruction to complete the data lifecycle plan.


## Step-By-Step Instructions

---

Consult the supporting materials to answer the quiz questions in the asset that follows. After you complete the quiz, you can compare your work to the exemplar provided.

### Step 1: Access supporting materials

The following supporting materials will help you complete this activity. Keep them open as you proceed to the questions.

 **RIGHT CLICK LINKS TO OPEN IN NEW TAB** 

Link to supporting materials: [Data lifecycle plan](#)

### Step 2: Planning

The first stage in creating a data lifecycle plan is planning. During this stage, data teams work with stakeholders to identify the business questions and align the desired objectives. During the first planning meeting, the stakeholders identified four business questions and objectives.

In this step, you'll perform two tasks: First, you'll match each business question to the objective it aims to address. Then, you'll review the business question/objective pairs to determine the specific data you'll need to gather and analyze in order to effectively meet the objectives.

1. Open the **Data lifecycle planning** template and navigate to the **Planning** slide.
2. Carefully review the **Meeting Notes** section. Pay close attention to the objectives outlined.

3. Focus on the top row, where a business question and its matching outcome are already paired. This example will serve as your guide to help you complete the next steps.
4. Locate the remaining three business questions in the **Business Question** section.
5. For each question, identify the corresponding objective from the meeting notes. Place the matched objective in the **Objective** section. Consider the following when matching each objective to its corresponding business question:
  - How can you answer the business question using data?
  - What data problem does each objective address?
6. Review the matched business questions. Consider the following questions to help craft a data recommendation for each question/objective pair.
  - What specific data is necessary to answer the business question effectively?
  - What specific data is needed to meet the objective?
7. Write your data recommendation for each question/objective pair in the **Data Needed** section.

### Step 3: Capture data



Once the business questions and objectives have been identified, the next step is to capture the data that you will need to answer the questions. In the data lifecycle, the capture stage involves collecting data from various sources and addressing any gaps in the data collection process. During this stage, data may also be cleaned, transformed, and encrypted so that it can be used for analysis.

In this step, you'll use the stakeholder feedback provided during the meeting to make recommendations for capturing data.

1. In the **Data lifecycle planning** template, navigate to the **Capture Data** slide.
2. Carefully review the **Meeting Notes** section. Pay close attention to feedback provided during the meeting about data sources, gaps, and data transformation.
3. Write three recommendations to address this feedback in the **Recommendations** section.

Consider the following when crafting your recommendations:

- Are the existing data sources still needed to meet the current objectives?
- Are any other data sources needed to meet the marketing and merchandising teams' needs? What are those sources?
- Does any of the data need to be transformed prior to analysis? What steps might you take to transform the data?



## Step 4: Manage, analyze, archive, and destroy data



To complete the data lifecycle plan, you'll need to consider how data will be managed, analyzed, archived, and destroyed, which involves understanding stakeholder needs, categorizing feedback, and drafting recommendations.

In this step, you'll use the stakeholder feedback provided during the meeting to make recommendations for managing, analyzing, archiving, and destroying data.

1. In the **Data lifecycle planning** template, navigate to the **Manage, Analyze, Archive, and Destroy Data** slide.
2. Carefully review the **Meeting Notes** section. Pay close attention to feedback provided during the meeting about managing, analyzing, archiving, and destroying data.
3. Write three recommendations to address this feedback in the **Recommendations** section.

Consider the following when crafting your recommendations:

- Who needs access to the data, and how are clear access policies defined?
- Are there sufficient policies in place about how to handle personally identifiable information?
- How is the data used by the marketing and merchandising teams? What visualizations and reports are most useful?
- What data needs to be archived, and for how long?
- Is there a clear plan for when data should be destroyed?

## Step 5: Access the quiz and answer questions about creating a data lifecycle plan



Go to the next course item and answer the quiz questions. Then compare your work to the exemplar provided.

### Pro Tip: Save the template

Finally, be sure to save a blank copy of the template you used to complete this activity. You can use it for further practice or in your professional projects. This template will help you work through your thought processes and demonstrate your experience to potential employers.



## What to include in your response



Be sure to address the following criteria in your completed activity:

- Each business question on the **Planning** slide should be aligned to an appropriate objective.
- Each business question/objective pairing on the **Planning** slide should have a recommendation that describes the data needed to meet the objective.
- The **Capture Data Slide** should include three recommendations based on the stakeholder feedback.
- The **Manage, Analyze, Archive and Destroy Data** slide should include three recommendations based on the stakeholder feedback.

