



Café and Bakery

**Managing Resource Consumption:
Optimizing AWS Resource Utilization**

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Welcome back to the Café and Bakery project.



Café and Bakery

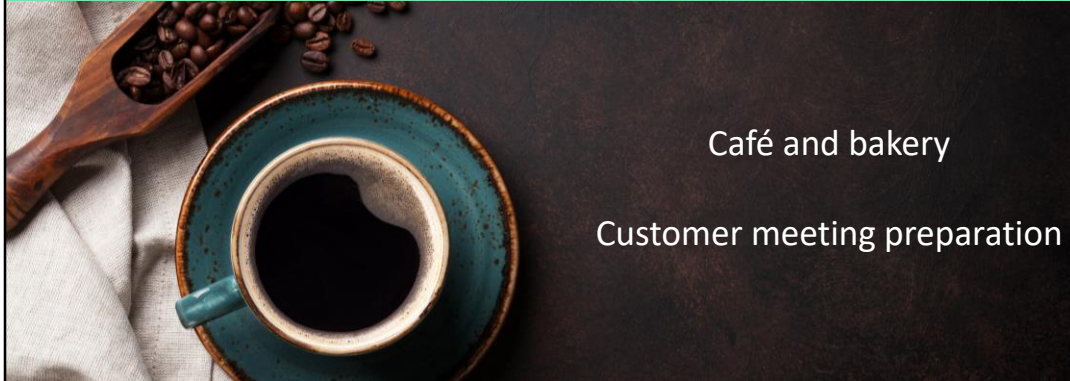
Objectives

2



On completion of this project, you will be able to:

- **Experience** the communication challenges faced when attempting to apply technology as the solution to business problems.
- **Translate** customer requirements into a proposed technical solution.
- **Present** the proposed solution to the customer.
- **Use** AWS best practices for a frugal, resilient, and secure solution.



Café and bakery

Customer meeting preparation

You will now begin to prepare for your customer meeting, where a new problem will be proposed and where you will assist them in finding a solution.



Optimizing AWS resources

Optimizing AWS resources.

Business need: Reduce AWS service costs



- Sofia wants to reduce AWS service costs
- Olivia suggests –
 - Uninstalling the decommissioned local database from the café instance.
 - Downsizing the instance to a smaller instance type.
- Sofia can use the AWS Simple Monthly Calculator to estimate cost savings.

5



Sofía:

Olivia, I would like to reduce the cost of the AWS services that we use. Can you identify some opportunities where we can optimize resource utilization?

Olivia:

The database migration to Amazon Relational Database Service (Amazon RDS) is complete. You could uninstall the decommissioned local database from the café instance, which would reduce its storage requirements. You could also downsize the instance to a smaller instance type because the database no longer runs on it. These actions should result in some cost savings.

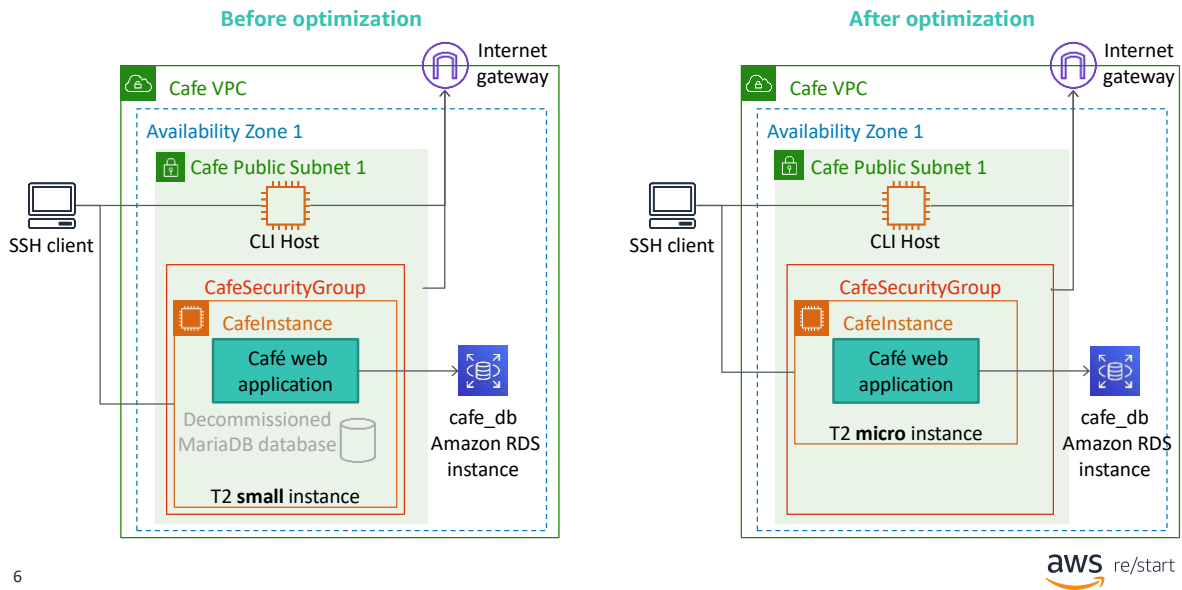
Sofía:

Can we estimate the amount that we would save?

Olivia:

You could use the AWS Simple Monthly Calculator to project the savings from these changes.

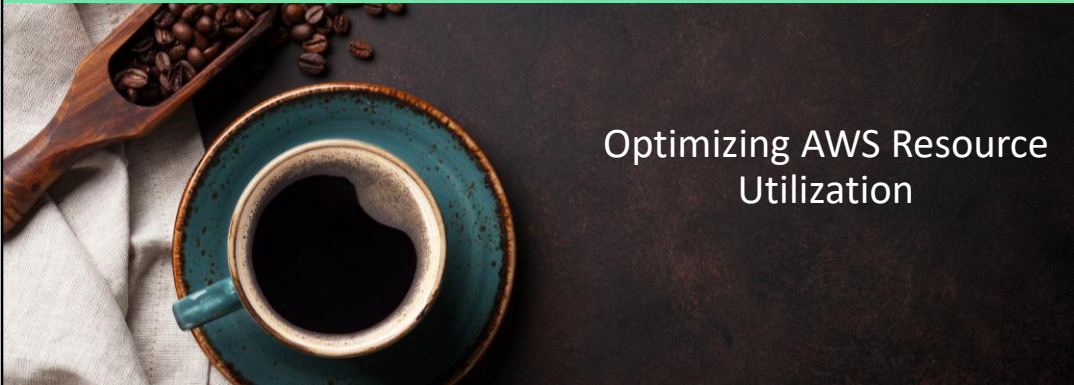
Optimize topologies



In this activity, you will optimize the AWS resources that are used to run the café web application. Specifically, you will:

1. Uninstall the decommissioned local database from the café instance to decrease the instance's storage requirements.
2. Change the instance type to *t2.micro* to reduce costs.

This diagram illustrates the topology of the café web application runtime environment *before* and *after* the optimization.



Optimizing AWS Resource Utilization

You can now begin the activity. Feel free to ask your instructor for help.

Optimizing an EC2 instance

What are two ways to optimize the utilization of an Amazon Elastic Compute Cloud (Amazon EC2) instance?

Method #1

Method #2

What are two ways to optimize the utilization of an Amazon Elastic Compute Cloud (Amazon EC2) instance? Explain why.

Optimizing an EC2 instance

What are two ways to optimize the utilization of an EC2 instance?

Method 1

Choose the correct size for the attached storage volumes.

Method 2

Select the appropriate instance type.

One way is to choose the correct size for the storage volume that is attached to the instance. You can estimate what your current storage needs are, and add some extra capacity to anticipate future growth.

Another method is to select the appropriate instance type based on the CPU and memory requirements of the workloads that you run on the instance.

Project time

Troubleshooting Knowledge Base

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10

Remember to add any relevant notes to your Troubleshooting Knowledge Base document.

Use the *Automation & Optimization* category when you add a related entry.



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