## Instruction Schedule – Based on Part - Time Cohort

• 60 minutes: welcome and content read

• 60 minutes: lecture and demo lessons

• 30 minutes: work on challenges

• 30 minutes: walk through challenge solutions and wrap up

## Instruction Schedule – Based on Full - Time Cohort

### Morning session:

• 60 minutes: welcome and content read

• 60 minutes: lecture and demo lessons

• 30 minutes: work on challenges

• 30 minutes: walk through challenge solutions and wrap up

Break – 30 mins

### Afternoon session:

• 60 minutes: recap and content read

• 60 minutes: lecture and demo lessons

• 30 minutes: work on challenges

• 30 minutes: walk through challenge solutions and wrap up

## AWS Instructor Guide Introduction

Welcome to AWS! Amazon Web Services(AWS) will help students gain the knowledge and skills they need to perform well in a serverless, cloud based platform. Students will learn the different types of analytic services offered by AWS. From learning basic storage solutions, connecting to data sources, manipulating data, importing/exporting files, and the power of visuals, they will be able to successfully operate across multiple platforms. provide a detailed summary of your analysis. The ability to effectively communicate, interact with, and interpret findings will be pulled together using a much desired online, cloud platform tool to showcase your hard work. This workshop will prepare them to help stakeholders make effective decisions based on analytical findings and impress them with their cloud platform abilities.

**NOTE: if you are on the Free Tier plan, be cautious on the data notes that AWS gives you and your storage. Because it is a Free Tier plan, you are allowed a certain amount of storage and features. Anything that goes beyond the plan you will be charged. Be sure to read all messages before moving forward in the console.**

# Module 1 – Instructor guide

### Databases

### Module Learning Outcomes

In this module students will,

1. Define what AWS is.
2. Identify AWS key terms.
3. Demonstrate how to create an AWS free tier profile and navigate the console.
4. Identify the AWS fundamental services.

### Module Overview Description

Welcome to the AWS Introduction and Free Tier Setup, the first module of Amazon Web Services (AWS). This module will get students familiar with AWS, key terminology, and familiarize them with how to navigate the console. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Considerations to Keep in Mind

* Some students may come with no experience in AWS whereas others might already be proficient.
* There is a workbook for the entire AWS workshop. Encourage students to use the workbook to take notes.
* Each class will start with a lesson video that will introduce key concepts and examples for the designated modules and how data analysts use AWS.
* The module will end with a challenge activity.

### Lesson 1: Introduction and Free Tier Setup

* Build students knowledge and guide them through the following areas:
  + Define AWS and what it stands for.
  + Explain what is desirable about AWS to companies.
  + Describe the three different types of cloud services.

### Lesson 2: Terminology

* Walk students through examples of the following and terminology:
  + Access Control List (ACL)
  + Auto Scaling
  + Buckets
  + DNS Server
  + DynamoDB
  + Elastic Block Store (EBS)
  + Elastic Computer Cloud (EC2)
  + ElasticCache
  + Elasticity
  + Fault Tolerance
  + Firewall
  + Folder
  + High Availability
  + Identify and Access Management
  + Lambda
  + NoSQL
  + Object Availability
  + Object Durability
  + Object Lifecycle
  + Object Sharing
  + Object Versioning
  + Relational Database Service (RDS)
  + Redshift
  + Scalability
  + Security Group (SG)
  + Shared Responsibility Model
  + Simple Storage Service (S3)
  + Storage Class
  + Subnet

### Lesson 3: Core Concepts

* Build students’ knowledge and guide them through the following areas:

### Describe the AWS core concept, Operational Excellence.

### Describe the AWS core concept, Security.

### Describe the AWS core concept, Reliability.

### Describe the AWS core concept, Performance Efficiency.

### Describe the AWS core concept, Cost Optimization.

### Discuss some of the information found on the [AWS Core Concepts](https://aws.amazon.com/getting-started/fundamentals-core-concepts/) page.

### Lesson 4: AWS Fundamental Services

### Build the student’s knowledge and guide them through the following areas:

* + Describe Amazon Elastic Compute Cloud.
  + Describe Amazon Simple Storage Service.
  + Describe Amazon Virtual Private Cloud.
  + Describe Amazon CloudWatch.
  + Describe AWS Auto Scaling.
  + Describe AWS Lambda.
  + Describe Amazon S3 Glacier.

This module has the [*Introduction to Amazon web services*](https://content.bridgepointeducation.com/curriculum/file/8045deac-a71f-49dc-a839-1dbba2bd212b/1/Intro%20To%20AWS.zip/story.html) interactive available for students to interact with and test their newly acquired skills. This interactive will be used for the Challenge Activity at the end of this module. Students will need to complete a query using the SQL clause order of operations.

# Module 2 – Instructor guide

### AWS Data Transformation and Extraction

### Module Learning Outcomes

In this module students will,

1. Define what ETL is.

2. Identify key terms.

3. Demonstrate how to create a data pipeline.

4. Define EC2 and what an instance is.

5. Identify batch processing.

### Module Overview Description

### Welcome to the AWS Data Transformation and Extraction module of Amazon Web Services (AWS). This module will get students familiar with extracting, transforming, and loading data. Students will learn how the extract, load, and transform (ETL) process works, how to create a data pipeline, and how to run a batch and an instance. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: Extract Transform Load (ETL)

* Walk students through the following:
  + Breakdown the process of ETL.
  + Identify the platform data sources in AWS.
  + Describe what needs to be considered when choosing an ETL.
  + Describe what ETL code allows for you to do.
  + Discuss 6 best practices that will ensure consistent runtimes for your ETL process.
  + Identify two ETL Amazon services.

### Lesson 2: Data Pipeline

* Walk students through examples of the following:
  + Describe what the data pipeline does and some of the key features.
  + Explain how to create a pipeline.
  + Explain the process of running a pipeline on a schedule.
  + Describe what a pipeline execution page looks like.
  + Identify what is on the List of Pipelines page.
  + Define the following status types.
    - Activating
    - Canceled
    - Cascade Failed
    - Deactivating
    - Failed
    - Finished
    - Inactive
    - Paused
    - Pending
    - Running
    - Scheduled
    - Shutting Down
    - Validating

### Lesson 3: EC2

* Build students’ knowledge and guide them through the following areas:

### Define EC2

### Describe the difference between a virtual server and a computer.

### Identify the features that EC2 offers.

### Break down the 7 steps involved in launching an instance from an EC2 dashboard.

### Lesson 4: Batch Processing

* Build the student’s knowledge and walk them through the following areas:
  + Define batch processing.
  + Describe when you will want to use batch processing.
  + Explain how batch processing works.
  + Describe what is needed to process and submit a fully managed batch at any scale.

# Module 3 – Instructor guide

### Simple Storage Solution (S3)

### Module Learning Outcomes

In this module students will,

### 1. Define Simple Storage Solution.

### 2. Identify key terms and concepts.

### 3. Identify key features of the S3 console.

### 4. Demonstrate how to create a bucket in S3.

### Module Overview Description

### Welcome to the Simple Storage Solution module of Amazon Web Services (AWS). This module will get students extracting, transforming, and loading data. Students will learn how the extract, load, and transform (ETL) process works, how to create a data pipeline, and how to run a batch and an instance. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: Concepts and Features

* Walk students through the following:

### List the advantages of S3.

### Describe how to access your S3 console.

### Discuss the common operations that you will be performing in S3.

### Define data access points.

### Define VPS and how S3 uses it.

### Describe the steps involved in creating an access point.

### Explain how to regulate whom will have access to your access point.

### Lesson 2: Features

* Walk students through examples of the following:
  + Define buckets in S3.
  + Describe the many purposes that buckets serve.
  + Define objects.
  + Discuss how to view your buckets from your S3 console.
  + Discuss how to view, search, and create batch operations.

### Lesson 3: Working with Buckets

* Build the student’s knowledge and walk them through the following areas:
  + Describe the steps for creating a bucket.
  + Discuss the criteria you need to keep in mind when creating buckets.
  + Discuss how to turn the versioning feature on when creating a bucket.
  + Describe what bucket versioning is.

### Lesson 4: Working with Objects

* Walk students through how to complete the table below that compares WHERE vs HAVING clauses:
  + Identify the maximum storage size of a bucket.
  + Describe how to work with objects that are in a bucket.
  + Describe how to create a folder for objects within a bucket.
  + Explain how to add files to a folder within a bucket.
  + Identify how to perform actions on one or multiple objects.

# Module 4 – Instructor guide

### S3 Glacier

### Module Learning Outcomes

In this module students will,

### Define S3 Glacier.

### Identify key terms in S3 Glacier.

### Identify S3 Glacier features.

### Demonstrate how to create a vault lock policy.

### Demonstrate how to archive and restore data in S3 and S3 Glacier.

### Module Overview Description

### Welcome to the S3 Glacier module of Amazon Web Services (AWS). This module will walk through data archive and retrieval. Students will learn the different types of data retrieval, as well as how to archive data and use vault locks. The module wraps up with a Challenge activity to review what students have learned by answering foundational questions.

### Lesson 1: Data Archive

* Walk students through the following:
  + Define Amazon S3 Glacier.
  + Describe the three data retrieval options that Glacier offers.
  + Describe the archive options that Amazon S3 Glacier offer.
  + Explain the steps involved in uploading data to S3 then sending and storing it in Glacier.

### Lesson 2: Features

* Walk students through examples of the following:
  + Describe some limitations of archiving data in Glacier.
  + Define vaults and describe how they are used.
  + Breakdown the steps needed to create a vault in S3 Glacier.
  + Define vault locks and how they are used.
  + Describe how to enable a vault lock and establish a vault lock policy.
  + Discuss considerations about Glacier vault inventory.

### Lesson 3: Restoring Archived Objects

* Build student knowledge and guide them through the following areas:
  + Expedited
  + Standard
  + Bulk
  + Breakdown the steps involved in restoring an archived object.
  + Identify what to keep in mind when retrieving data.

### Lesson 4: Archive Use Cases

* Describe some use cases that would make S3 Glacier beneficial to you in your role as an analyst.:
  + AWS. (2014).Sony DADC NMS case study. <https://aws.amazon.com/solutions/case-studies/sony-dadc/>
    - This webpage shares the case-study of how Sony is leveraging AWS EC2 to organize and migrate their data.
  + AWS. (2014). Celgene case study. <https://aws.amazon.com/solutions/case-studies/celgene/>
    - This webpage shares the case-study of how Celgene is leveraging AWS S3 Glacier to store and archive data.
  + AWS. (2014). SoundCloud case study. <https://aws.amazon.com/solutions/case-studies/soundcloud/>
    - This webpage shares the case-study of how SoundCloud is leveraging AWS S3 and Glacier to store and archive data.
  + AWS. (n.d.). Illumina case study. Illumina. <https://aws.amazon.com/solutions/case-studies/illumina/>
    - This webpage shares the case study of Illumina leveraging S3 and how it reduced costs.

# Module 5 – Instructor guide

### AWS Glue

### Module Learning Outcomes

In this module students will,

### 1. Define AWS Glue.

### 2. Identify key terms and concepts.

### 3. Identify key features of the Glue console.

### 4. Demonstrate how to prep data, create a table, and use crawlers.

### Module Overview Description

### Welcome to the AWS Glue module of Amazon Web Services (AWS). This module will familiarize students with serverless cloud computing and run code to schedule events. Students will learn how to prep the data, create a data lake, use tables and crawlers. The module wraps up with a Challenge activity to review what you learned by answering foundational questions.

### Lesson 1: Data Preparation

* Walk students through the following:
  + Describe AWS Glue and what it does.
  + Define ETL data pipelines.
  + Explain how lambda functions are used with ETL data pipelines in AWS Glue.
  + Define the following areas and key terms:
    - Data catalog
    - Database
    - Table
    - Crawler and classifier
    - Job
    - Trigger
    - Development endpoint
    - Identify the databases supported by Glue.
    - Describe the core features that Glue has to offer.
    - Describe what that Glue Data Catalog offers.
    - Identify how to access your AWS Glue console.
    - Discuss the user process for Glue.

### Lesson 2: Data Lakes

* Walk students through the following:
  + Define data lakes.
  + Describe what data lakes do.
  + Explain how data lakes store data.
  + Explain the difference between a data warehouse and a data lake.
  + Discuss how a data lake is typically run and managed.
  + Identify the file types that can be transferred to Glue Data Catalog Tables.
  + Breakdown the stages involved in creating a data lake.

### Lesson 3: Tables

* Walk students through the following:
  + Describe the most common table types in AWS.
  + Describe the features of a table in the AWS Glue Data Catalog.
  + Breakdown the steps for creating a table using Glue.

### Lesson 4: Crawlers

* Walk students through the following:
  + Breakdown the steps involved in the process for creating a crawler.
  + Discuss the purpose of a crawler.
  + Describe the actions that a crawler takes.
  + Describe how crawlers fill the data catalog.
  + Breakdown the process for creating a crawler using the Glue console.
  + Identify the sources and services that crawlers are compatible with.

# Module 6 – Instructor guide

### Analytics and Athena

### Module Learning Outcomes

In this module students will,

### 1. Define AWS Athena.

### 2. Identify key terms and concepts.

### 3. Identify key features of the Athena console.

### 4. Demonstrate how to create a database, table, and use crawlers.

### Module Overview Description

### Welcome to the Analytics and Athena module of Amazon Web Services (AWS). This module will get students familiar with how to start analyzing data. Students will learn how to create a database and SQL queries while reviewing example code. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: Analyzing Data

* Walk students through the following:
  + Define Athena.
  + Identify why knowing SQL supports using Athena.
  + Describe the pipeline from various sources that are being fetched and dumped into S3 buckets starting from a management console.
  + Define Amazon QuickSight.
  + Define partitioning and what it’s uses are.
  + Identify a few key features of the Athena homepage.

### Lesson 2: Creating a Database and Table

* Walk students through the following:
  + Breakdown the steps involved in creating a table using Athena.
  + Identify the 4 needed steps in the Add table wizard tool.

### Lesson 3: SQL Queries

* Walk students through the following:
  + Identify the data sources that you can run SQL queries on.
  + Explain how to recognize existing queries.
  + Explain how to create new queries using the existing tables within the Athena console.

### Lesson 4: Running Queries

* Walk students through the following:
  + Identify the SQL queries that you can use in Athena.
  + Explain how to query a file that is stored in your S3 bucket and then connect it to Athena.

# Module 7 – Instructor guide

### Redshift

### Module Learning Outcomes

In this module students will,

### 1. Define AWS Redshift.

### 2. Identify key terms and concepts.

### 3. Identify key features of the Redshift console.

### 4. Demonstrate how to create, run, and query clusters.

### 5. Demonstrate how to create a visual in the Redshift console.

### Module Overview Description

### Welcome to the Redshift module of Amazon Web Services (AWS). This module will get students familiar with fully managed data warehouses in AWS. Students will learn how to set up a data warehouse, create, run, and query clusters. The module wraps up with a Challenge activity to review what students have learned by answering foundational questions.

### Lesson 1: Data Warehouse

* Walk students through the following:
  + Define AWS Redshift.
  + Explain the multiple ways that Redshift serves users.
  + Define a petabyte.
  + Describe how Redshift is constructed.
  + Define a cluster and its main components.
  + Explain how data warehouses and databases differ.
  + Discuss how to access Redshift.

### Lesson 2: Set up Your Warehouse

* Walk students through the following:
  + Define sort keys.
  + Explain what sort keys do.
  + Describe the various keys and what they do.
  + Discuss the distribution styles in Redshift.
  + Explain how to set up IAM roles to access Redshift and its policies.

### Lesson 3: Running Clusters

* Walk students through the following:
  + Define the resize operation in Redshift.
  + Define cluster snapshots.
  + Identify the four main cluster operations.
  + Breakdown the steps involved in creating a cluster.

### Lesson 4: Cluster Queries

* Walk students through the following:
  + Describe how to share data in Redshift.
  + Identify the levels at which you can share data in Redshift.
  + Describe how to access clusters in the Redshift console.
  + Describe how to run a query on data in Redshift.

# Module 8 – Instructor guide

### Kinesis

### Module Learning Outcomes

In this module students will,

### 1. Define AWS Kinesis.

### 2. Demonstrate how to collect data using Data Streams.

### 3. Demonstrate how to process data using Data Firehose.

### 4. Demonstrate how to analyze streaming data using Data Analytics.

### Module Overview Description

### Welcome to the Kinesis module of Amazon Web Services (AWS). This module will get students familiar with collecting and storing data streams in real life. Students will learn to collect streaming data, process and deliver streaming data, and how to analyze streaming data. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: Kinesis and Data Streams

* Walk students through the following:
  + Define streaming data and discuss how they are used.
  + Identify the three areas that Kinesis offers to process real time data.
  + Break down the Data Streams key concepts.
  + Provide a few key scenarios for using Kinesis Data Streams.
  + Discuss the steps involved in creating a data stream.
  + Identify the types of companies that would benefit from using Kinesis Data Streams.

### Lesson 2: Kinesis Data Analytics

* Walk students through the following:
  + Breakdown the steps needed to create a Kinesis Analytics application.
  + Explain how to connect to streaming data once a Kinesis application has been created.
  + Explain how to run real time analytics using the SQL editor to analyze the source data.

### Lesson 3: Kinesis Data Firehose

* Walk students through the following:
  + Describe what Kinesis Data firehose does and how it works.
  + Breakdown the five steps for creating a data firehose delivery system.
  + Identify the benefits of Kinesis Data Firehose for business analytics.

### Lesson 4: Use Cases

* Walk students through the following:
  + Compare the features of Data Streams and Firehose.
  + Identify some of the capabilities of streaming databases that might be attractive to business teams.
  + Describe some examples of specific organization types and how they might want to leverage Kinesis services.
    - AWS. (2017). Netflix & Amazon Kinesis data streams case study. <https://aws.amazon.com/solutions/case-studies/netflix-kinesis-data-streams/>
      * This article provides a case study on how Netflix uses AWS for it’s computing and storage needs.
    - AWS. (n.d.). Zillow increases accuracy of ‘Zestimates’ using Amazon Kinesis. <https://aws.amazon.com/solutions/case-studies/zillow-zestimate/>
      * This article provides a case study on how Zillow uses a variety of AWS services to create their ‘Zestimates’.

# Module 9 – Instructor guide

### DynamoDB

### Module Learning Outcomes

In this module students will,

### 1. Define AWS DynamoDB.

### 2. Identify the use of a No SQL database.

### 3. Demonstrate how to create a table in DynamoDB.

### 4. Demonstrate how to write a query using PartiQL.

### 5. Demonstrate how to run and analyze ad hoc analysis using DynamoDB and S3.

### Module Overview Description

### Welcome to the DynamoDB module of Amazon Web Services (AWS). This module will get students familiar with NoSQL databases. Students will learn how to set up a NoSQL database, create tables, and write data using PartiQL. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: DynamoDB Database

* Walk students through the following:
  + Define DynamoDB.
  + Explain how DynamoDB works.
  + Describe how DynamoDB creates tables.
  + Define the following keys in DynamoDB.
    - Primary Key
    - Partition Key
    - Sort Key
  + Describe how querying works in DynamoDB.
  + Define secondary indexes.
  + Define global and local secondary indexes.
    - Global Secondary Index
    - Local Secondary Index.
  + Define the data types for attributes in a DynamoDB table.
    - Scalar Types
    - Document Types
    - Set Types

### Lesson 2: Setting up Tables in DynamoDB

* Walk students through the following:
  + Discuss properly using key-values for setting up tables in DynamoDB.
  + Breakdown the steps involved in creating a table in DynamoDB.
  + Explain how to add attributes to a table.
  + Explain how to create a backup to a table.
  + Identify something to note about table backups.

### Lesson 3: Table Query and Exports

* Walk students through the following:
  + Define PartiQL.
  + Describe the common operations used to batch or scan results when running queries in DynamoDB.
    - BatchGetItem
    - Scan
  + Describe what happens when you scan table.
  + Identify the modifying operations to filter results for each category below.
    - Statements
    - Functions
    - Operators
  + Identify the arithmetic and comparison operators.
  + Describe how to query items in DynamoDB.
  + Write an example query that demonstrates how you create a query in DynamoDB to insert new elements into the Map, List, Number Set, and String Set types and change the value of a Number type.

### Lesson 4: DynamoDB and S3

* Walk students through the following:
  + Describe some of the qualities of DynamoDB introduced in this lesson.
  + Describe some of the qualities of S3 introduced in this lesson.
  + Break down the process steps for exporting a DynamoDB table into S3.
  + Describe a scenario where you may want to import and export data from S3 to DynamoDB using a data pipeline.
  + Break down the process steps for exporting a DynamoDB table using a pipeline.

# Module 10 – Instructor guide

### Lambda

### Module Learning Outcomes

In this module students will,

### 1. Define AWS Lambda.

### 2. Demonstrate how to deploy and invoke Lambda code.

### 3. Demonstrate how to process real time analytics with Lambda code.

### 4. Identify different use cases for Lambda.

### Module Overview Description

### Welcome to the Lambda module of Amazon Web Services (AWS). This module will get students familiar with collecting and storing data streams in real time. Students will learn to collect streaming data, process and deliver streaming data, and how to analyze streaming data. The module wraps up with a Challenge activity to review what they have learned by answering foundational questions.

### Lesson 1: Lambda

* Walk students through the following:
  + Define Lambda and the describe the service it provides.
  + Describe how Lambda uses triggers.
  + Discuss some key concepts of Lambda.
  + Illustrate Lambda architecture using an example with S3 and Athena services.
  + Identify how Lambda charges.
  + Describe a few scenarios in which you invoke or wake a Lambda function.
  + Identify the general use cases of AWS Lambda.

### Lesson 2: Lambda and Streaming Analytics

* Walk students through the following:
  + Describe how data is processed when using streaming data.
  + Discuss the processing types that use DynamoDB and Kinesis Firehose.
  + Describe the differences and commonalities of EC2 and Lambda.
  + Identify considerations to determine if EC2 or Lambda is right for you.

### Lesson 3: Create Lambda Functions

* Walk students through the following:
  + Identify why you need to set the IAM to create a Lambda function.
  + Describe what Amazon CloudWatch does.
  + Explain some of the capabilities or services of Lambda.
  + Break down the steps involved in creating a Lambda function.
  + Identify how to delete a Lambda function.

### Lesson 4: Lambda Examples and Use Cases

* Walk students through the following and describe an example trigger use case in Lambda:
  + AWS. (2014). Thomson Reuters case study. <https://aws.amazon.com/solutions/case-studies/thomson-reuters/>
    - This webpage shares how Thomson Reuters leverages Kinesis and Lambda to create data pipelines.
  + AWS. (n.d.). AOL case study. <https://aws.amazon.com/solutions/case-studies/AOL/>
    - This webpage shares how AOL leverages Kinesis, Lambda and other AWS services to create hybrid scenarios.
  + AWS. (2016). Realtor.com case study. <https://aws.amazon.com/solutions/case-studies/realtor-com/>
    - This webpage shares how Realtor.com leverages Kinesis and Redshift to make their data more flexible and accessible.
  + AWS. (2016). iRobot case study. <https://aws.amazon.com/solutions/case-studies/irobot/>
    - This webpage shares how iRobot leverages Kinesis to connect to WiFi vacuums and record performance across customer homes.

# Module 11 – Instructor guide

### AWS Visualization and Analysis

### Module Learning Outcomes

In this module students will,

### Define AWS QuickSight.

### Define AWS Glue DataBrew.

### Create visuals using QuickSight.

### Create visuals using Glue DataBrew.

### Module Overview Description

### Welcome to the Visualization and Analysis module of Amazon Web Services (AWS). This module will get students familiar with creating visuals using the cloud environment. Students will learn to connect to visual services, connect to data pipelines, and create visuals using QuickSight and Glue DataBrew. The module wraps up with a Challenge activity to review what students learned by answering foundational questions.

### Lesson 1: Data Visuals in AWS

* Walk students through the following:
  + Describe the types of information that charts convey.
  + Identify the services and data methods that you can connect with to present your data visually.
  + Identify the AWS services that will be used to create visuals.

### Lesson 2: DataBrew

* Walk students through the following:
  + Define Glue DataBrew.
  + Describe how DataBrew works.
  + Breakdown how to use DataBrew.
  + Define the key concepts when using DataBrew.
  + Breakdown the steps to clean and normalize data using DataBrew.

### Lesson 3: Quick Sight

* Walk students through the following:
  + Define Amazon QuickSight
  + Breakdown the Quicksight process.
  + Describe what Quicksight can do.
  + Breakdown the steps for creating visuals using Quicksight.
  + Breakdown the steps for connecting to data using Quicksight.
  + Define SPICE.

### Lesson 4: Building Quick Sight Visuals

* Walk students through the following:
  + Breakdown the steps for creating visuals in Quicksight.
    - AWS. (n.d.). Amazon Quicksight Gallery. (n.d.). <https://aws.amazon.com/quicksight/gallery/>
      * This webpage offers example visualizations using Quicksight that users have created from a variety of industries.