

## ✔ Congratulations! You passed!

**Grade**  
received 100%

**Latest Submission**  
Grade 100%

**To pass 80% or**  
higher

**Go to next item**

Retake the assignment in **7h 58m**

1. What is a crucial advantage of cloud-based development environments?

1 / 1 point

- ☐ Always include GPU
- ☐ Always free
- ☐ Only run on Windows
- ☒ Reproducible development workflows



**Correct**

Cloud-based environments solve the "works on my machine" problem.

2. What is AWS S3 storage?

1 / 1 point

- ☐ network storage
- ☐ key-value database
- ☐ block storage
- ☒ object storage



**Correct**

Amazon S3 is an object storage service that stores data as objects within buckets

3. What is the advantage of AWS Step functions?

1 / 1 point

- ☒ coordinate multiple AWS services to build and run applications quickly and easily
- ☐ Run solutions on dedicated VMs
- ☐ They only use Powershell
- ☐ They require GPUs

✓ **Correct**

Step Functions are a "visual workflow service that helps developers use AWS services to build distributed applications, automate processes, orchestrate microservices, and create data and machine learning (ML) pipelines."

4. What are some advantages of Batch jobs in Data Engineering?

1 / 1 point

- ☐ Well supported by frameworks and technology
- ☐ Solve most data engineering workflows (i.e. default choice)
- ☐ Easy to schedule
- ☒ Simplicity

✓ **Correct**

**Batch jobs are more straightforward than many other forms of data engineering, like streaming which introduces the complexity of real-time data.**

5. What is map-reduce?

1 / 1 point

- ☒ programming model
- ☐ composed of map procedures
- ☐ includes a reduce method
- ☐ standard solution to big-data problems with disk and compute bottlenecks

✓ **Correct**

Map-reduce is a programming model used to solve bottlenecks in big data problems by distributing the workload to multiple nodes, which can process data and then combine the results at the end of the operation.