

Day 1: Introduction to AWS Glue and Basic Concepts

1. Module 1: Introduction to AWS Glue

- 1.1 Overview of AWS Glue
- 1.2 Key Features and Benefits
- 1.3 Use Cases

2. Module 2: Getting Started with AWS Glue

- 2.1 Setting up AWS Glue Environment
- 2.2 AWS Glue Console Overview
- 2.3 Configuring AWS Glue Data Catalog

3. Module 3: Understanding Data Transformation with AWS Glue

- 3.1 Data Transformation Basics
- 3.2 Using AWS Glue ETL Jobs
- 3.3 Hands-on Lab: Creating Your First ETL Job

4. Module 4: Working with Data Sources and Targets

- 4.1 Connecting to Different Data Sources
- 4.2 Defining Data Targets
- 4.3 Hands-on Lab: Configuring Data Sources and Targets

Day 2: Advanced AWS Glue Concepts and Best Practices

5. Module 5: Advanced ETL Transformations

- 5.1 Complex Transformations with AWS Glue
- 5.2 Custom Transformations
- 5.3 Error Handling in ETL Jobs

6. Module 6: Managing and Monitoring AWS Glue Jobs

- 6.1 Job Monitoring and Logging
- 6.2 Managing Job Execution
- 6.3 Troubleshooting Common Issues

7. Module 7: Working with AWS Glue Crawlers

- 7.1 Introduction to Crawlers
- 7.2 Configuring and Running Crawlers
- 7.3 Hands-on Lab: Using Crawlers to Discover Data

8. Module 8: Best Practices and Optimization Techniques

- 8.1 Performance Optimization Tips
- 8.2 Cost Optimization Strategies
- 8.3 Security Best Practices

9. Module 9: Integration with Other AWS Services

- 9.1 AWS Glue and Amazon S3 Integration
- 9.2 AWS Glue and AWS Lambda Integration
- 9.3 Case Study: Building an End-to-End Data Pipeline

10. **Module 10: Real-world Use Cases and Q&A**

- 10.1 Real-world Scenarios and Case Studies
- 10.2 Open Floor for Questions and Answers
- 10.3 Course Recap and Next Steps