

AWS Step Functions



What are workflows?

- **manage failures,**
- **retries,**
- **parallelization,**
- **service integrations, and**
- **observability**
- **so developers can focus on higher-value business logic.**



Step functions

- **low-code visual workflow service**
- **used to orchestrate AWS services,**
- **automate business processes,**
- **build serverless applications.**



Step functions Benefits

- **Rapid build and deploy**
 - simple **drag-and-drop** interface.
 - express complex business logic as low-code, event-driven workflows that connect services, systems or people within minutes.



Step functions Benefits

- **less integration code**
 - Compose **AWS resources** (Lambda, ECS, Fargate, Batch, DynamoDB, SNS, SQS, SageMaker, EventBridge, or EMR)
 - into resilient business workflows, data pipelines, or applications.



Step functions Benefits

- **Fault-tolerant and stateful workflows**
 - Step Functions manages state and checkpoints
 - **restarts** for you to make sure that your workflows execute in order and as expected.
 - **Built-in try/catch, retry, and rollback** capabilities deal with errors and exceptions automatically based on your defined business logic.



Step functions Benefits

- **Designed for any use case**
 - Standard Workflows are used to manage **long-running workloads**.
 - Express Workflows support **high-volume event processing workloads**.



Use Cases

- **Automate Extract, Transform, and Load (ETL) process**
- **Prepare Data for Machine Learning (ML)**
- **Orchestrate microservices**
- **Security and IT Automation**
- **Media Processing**



Demo



Thank you!!!



References

- [**https://docs.aws.amazon.com/step-functions/latest/dg/getting-started.html**](https://docs.aws.amazon.com/step-functions/latest/dg/getting-started.html)

