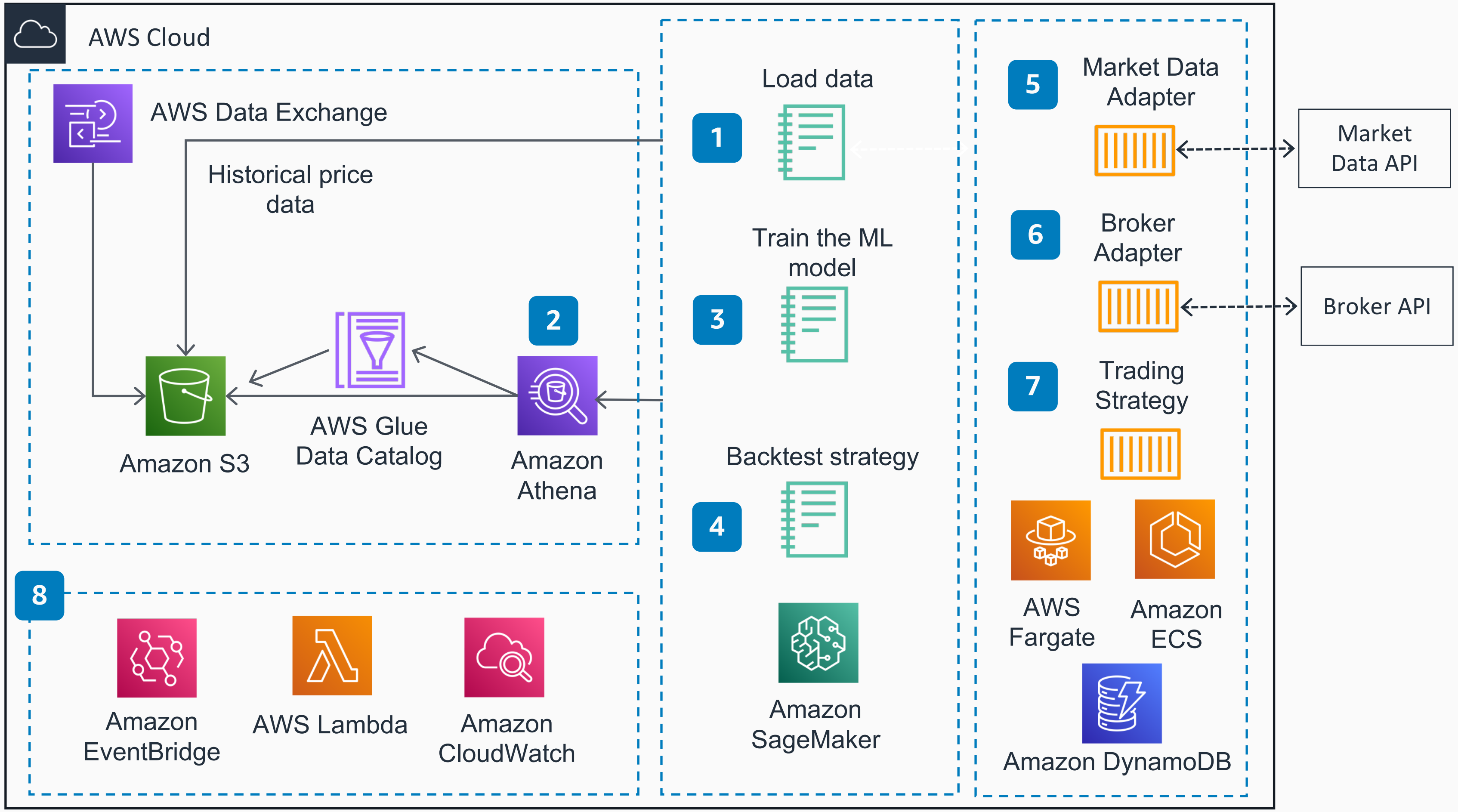
Algorithmic Trading on AWS

AWS Fargate, **Amazon ECS**, and **Amazon SageMaker** are used for backtesting and hosting machine learning-based algorithmic trading strategies. Historical market data is loaded via **AWS Data Exchange**, and made accessible via **Amazon Athena**. Real-time market data connectors and broker gateways are hosted as containers, and transactional data is kept in **Amazon DynamoDB**. Code examples can be found in this GitHub repository.



1. Get historical price data from **AWS Data Exchange** or external market data sources.
2. Catalog historical price data in **AWS Glue Data Catalog** and query data via **Amazon Athena**.
3. Train the machine learning (ML) model for ML-based trading strategies using **Amazon SageMaker**.
4. Run Backtest for trading strategy as a task via **AWS Fargate / Amazon Elastic Container Service (Amazon ECS)**.
5. Run Market Data Adapter as a service via **Fargate / ECS** and feed data into **Amazon DynamoDB**.
6. Run Broker Adapter as a service via **Fargate / ECS** and use **DynamoDB** as transaction store.
7. Run Trading Strategy as a service via **Fargate / ECS**.
8. Use **Amazon EventBridge** for scheduling of jobs using **AWS Lambda** functions. Use **Amazon CloudWatch** for monitoring.

AWS Reference Architecture