AWS LAMBDA

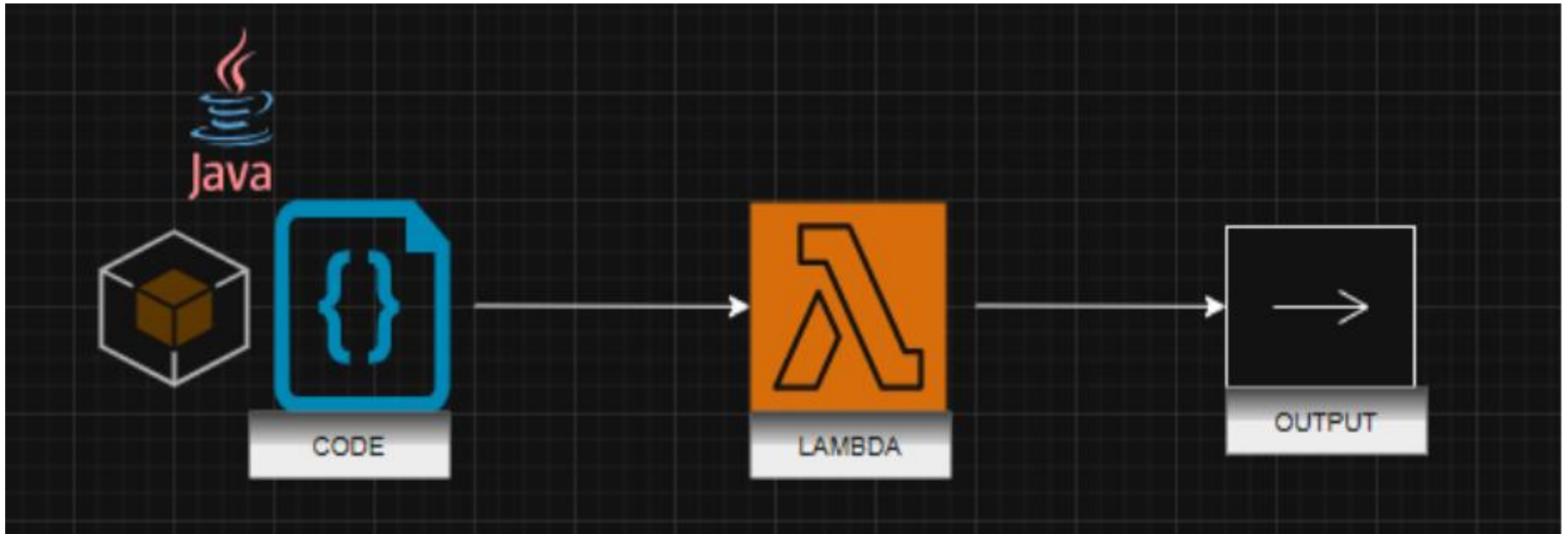
SERVERLESS ARCHITECHTURE

What is AWS LAMBDA?

- AWS LAMBDA which is serverless and event-driven computing service that lets you run code in virtual applications or backend services automatically. We don’t need to worry about the servers and clusters when we are working with amazon lambda.
- AWS Lambda is an Amazon serverless computing system that runs code and automatically manages the underlying computing resources like (EC2). It is an event-driven computing service.

Advantages of using LAMBDA:

- 1.no server setup
- 2.no start & stop
- 3.no additional cost
- 4. Its serverless



How Does AWS LAMBDA Works?

- Upload your code
- Set a trigger (API Gateway, S3, DynamoDB)
- Lambda runs the code when the trigger fires.
- Returns the Output or Logic

LAMBDA ARCHITECTURE

- •**Trigger**: Event source (e.g., API Gateway, S3)
- •**Lambda Function**: Your code logic
- •**Execution Environment**: Managed by AWS
- •**Resources**: IAM, VPC, Environment Variables

COMMON USE CASES

- RESTful APIs with API Gateway
- File processing (e.g., image resize on S3 upload)
- Real-time stream processing (Kinesis, DynamoDB Streams)
- Automation and scheduled tasks (CloudWatch Events)

PRICING

- Charged based on:
- Number of requests
- Duration of code execution (in GB-seconds)
- Free tier: 1M requests & 400,000 GB-seconds per mont

Conclusion

- **AWS Lambda** enables you to run code **without managing servers**.
- It offers **scalability, cost-efficiency, and flexibility** for building modern, event-driven applications.
- By integrating with other AWS services, Lambda helps **automate tasks, process data, and build APIs easily**.
- Focus on writing code while AWS handles **infrastructure, scaling, and availability**