

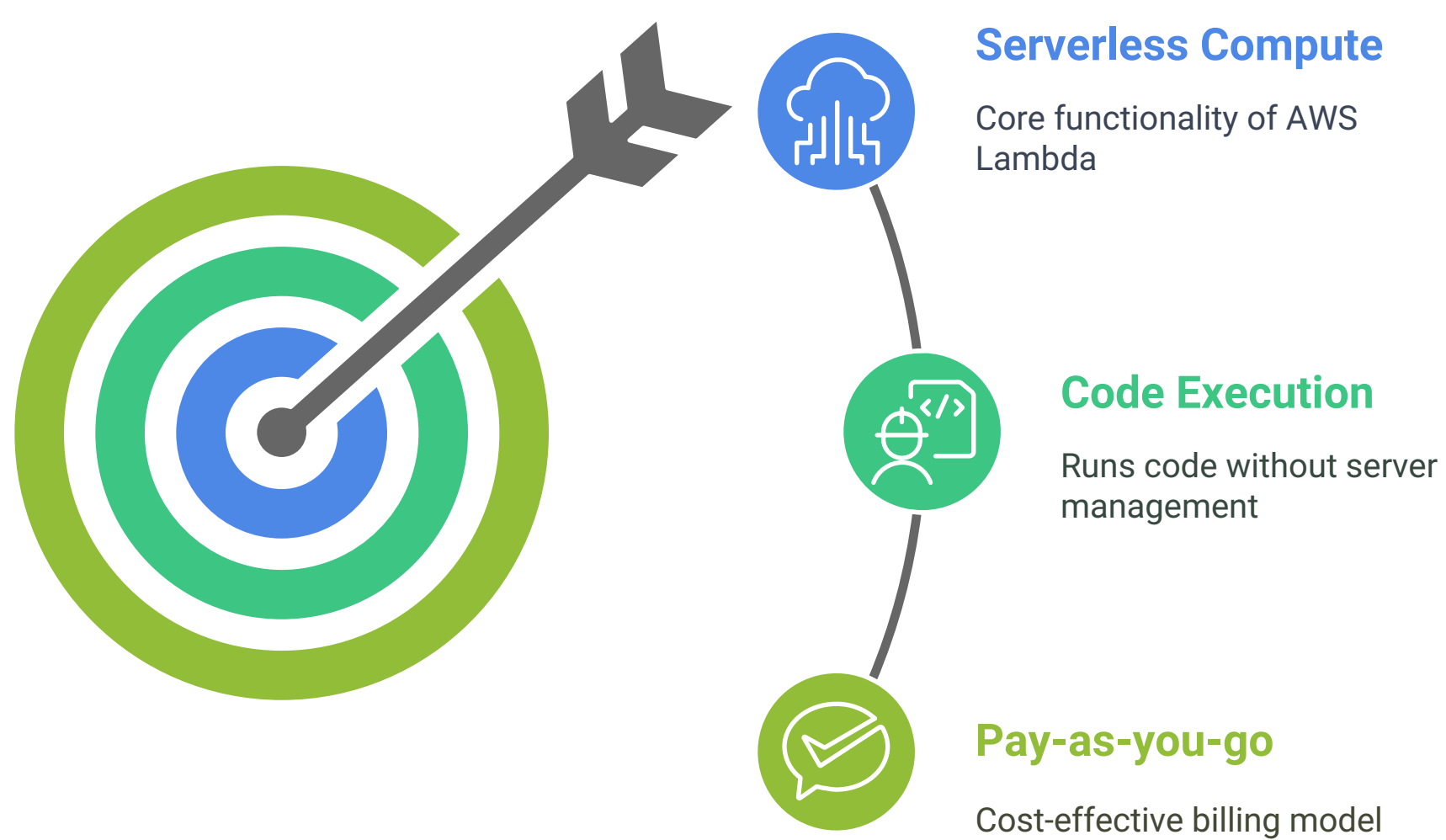


AWS Lambda

1. What is AWS Lambda?

AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. You only pay for the compute time you consume.

AWS Lambda Service



2. Core Features of AWS Lambda

- **Serverless:** No need to manage infrastructure.
- **Pay-per-use:** Charges based on execution time.
- **Auto Scaling:** Handles thousands of requests per second.
- **Supports multiple languages:** Python, Node.js, Java, etc.

AWS Lambda's Core Features

Supports multiple languages

Compatible with Python, Node.js, Java, etc.

Serverless

No infrastructure management needed

Auto Scaling

Handles thousands of requests per second

Pay-per-use

Charges based on execution time



3. Use Cases

- **Image processing:** Resize or filter images.
- **Real-time data transformation.**
- **Notification and alert systems.**
- **Backend for microservices and web apps.**

Backend for apps

Backend for microservices and web apps.

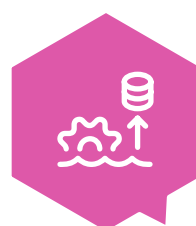


Image processing

Resize or filter images.

Notification systems

Notification and alert systems.



Real-time transformation

Real-time data transformation.

4. Step-by-Step Guide to Using AWS Lambda

Step 1 : Log in to AWS Console

Step 2 : Go to Lambda Service

Step 3 : Click 'Create Function'

Step 4 : Choose Author from Scratch

Step 5 : Configure function name and runtime (e.g., Python 3.9)

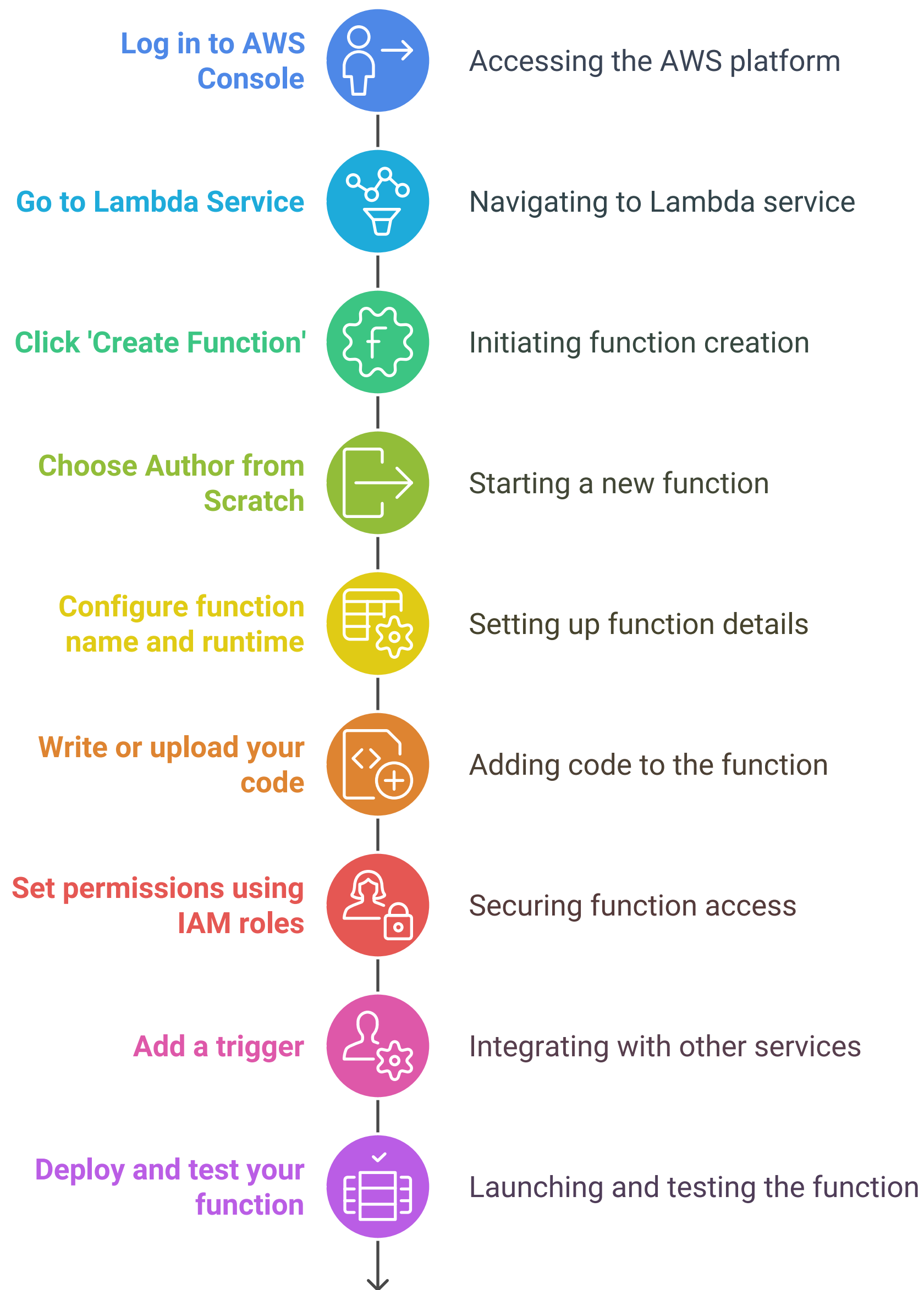
Step 6 : Write or upload your code

Step 7 : Set permissions using IAM roles

Step 8 : Add a trigger (e.g., S3, API Gateway)

Step 9 : Deploy and test your function

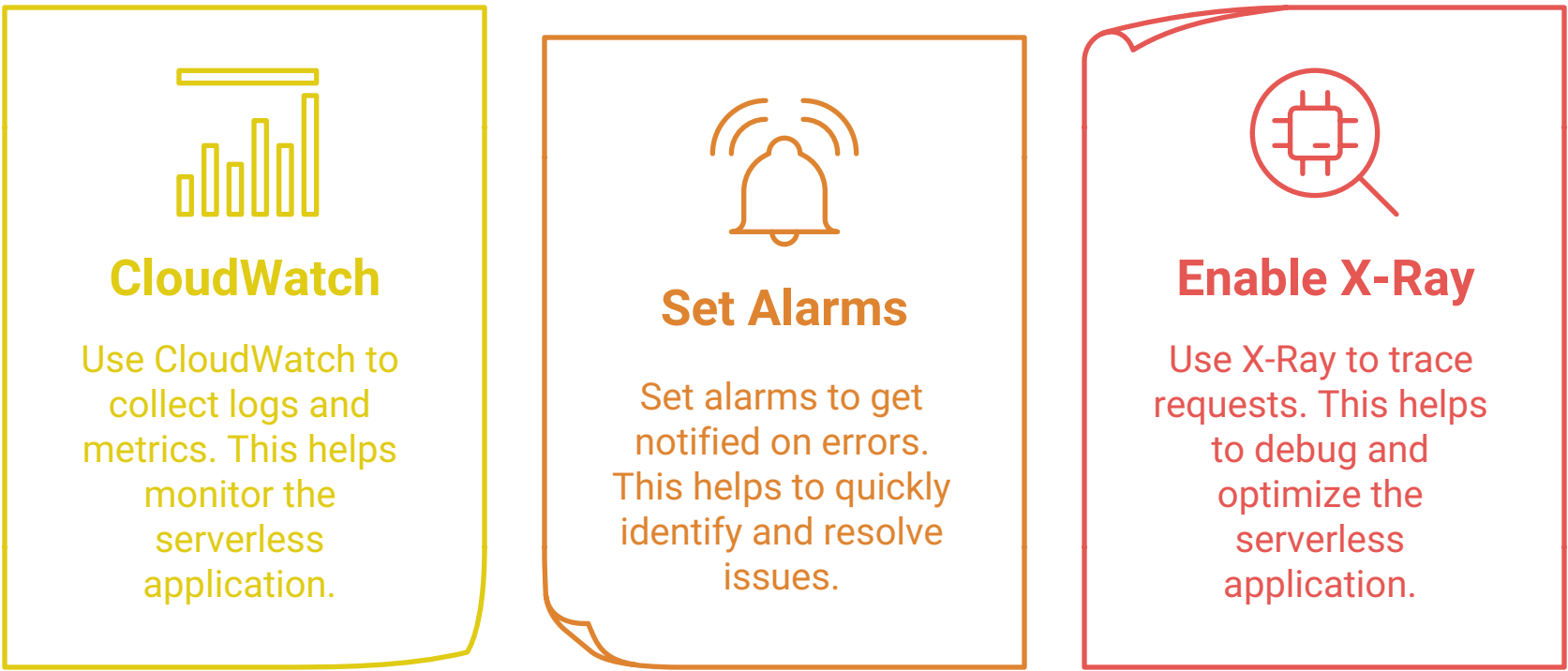
Mastering AWS Lambda: A Step-by-Step Guide



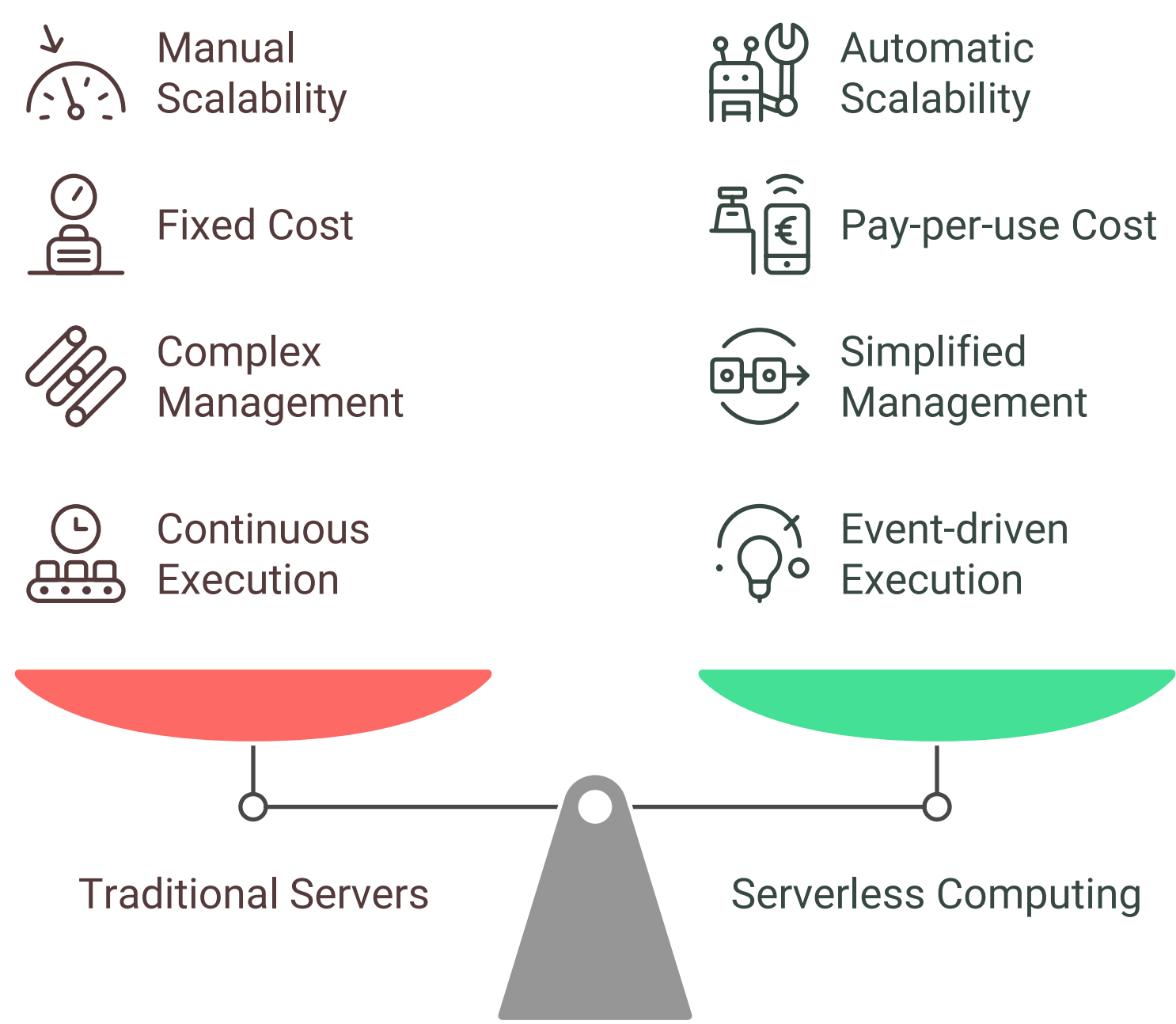
5. Monitoring and Debugging

- Use AWS CloudWatch for logs and metrics
- Set alarms for function errors or timeouts
- Enable X-Ray for tracing requests

Serverless application monitoring



Comparision with Traditional Servers



6. Conclusion

AWS Lambda is a powerful tool for building scalable, cost-efficient, event-driven applications. It's ideal for automation, real-time processing, and serverless web services.

AWS Lambda Ecosystem

