AWS re:Invent

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Getting started developing backend applications in the cloud

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Agenda

- Factors backend applications need to consider
- Build a backend application together

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Backend apps need to consider...

- Compute
- Storage
- Messaging
- Security/identity/compliance
- Operations (monitoring, CI/CD, etc.)
- Developer experience

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Compute

Where to run?

- Virtual hardware
- Containers
- AWS Lambda

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Storage

How to persist and access application data?

- Queryable structured data
- Unstructured data
- Access patterns

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Messaging

How to coordinate across multiple services?

- Queues
- Messaging
- Stream processing

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Security/identity/compliance

- How will clients authenticate against my app?
- How will my clients authenticate against AWS?
- How will I manage authorization?
- How will I manage credentials?

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Operations

- How do I observe my app?
- How do I test my app?
- How do I deploy my app?

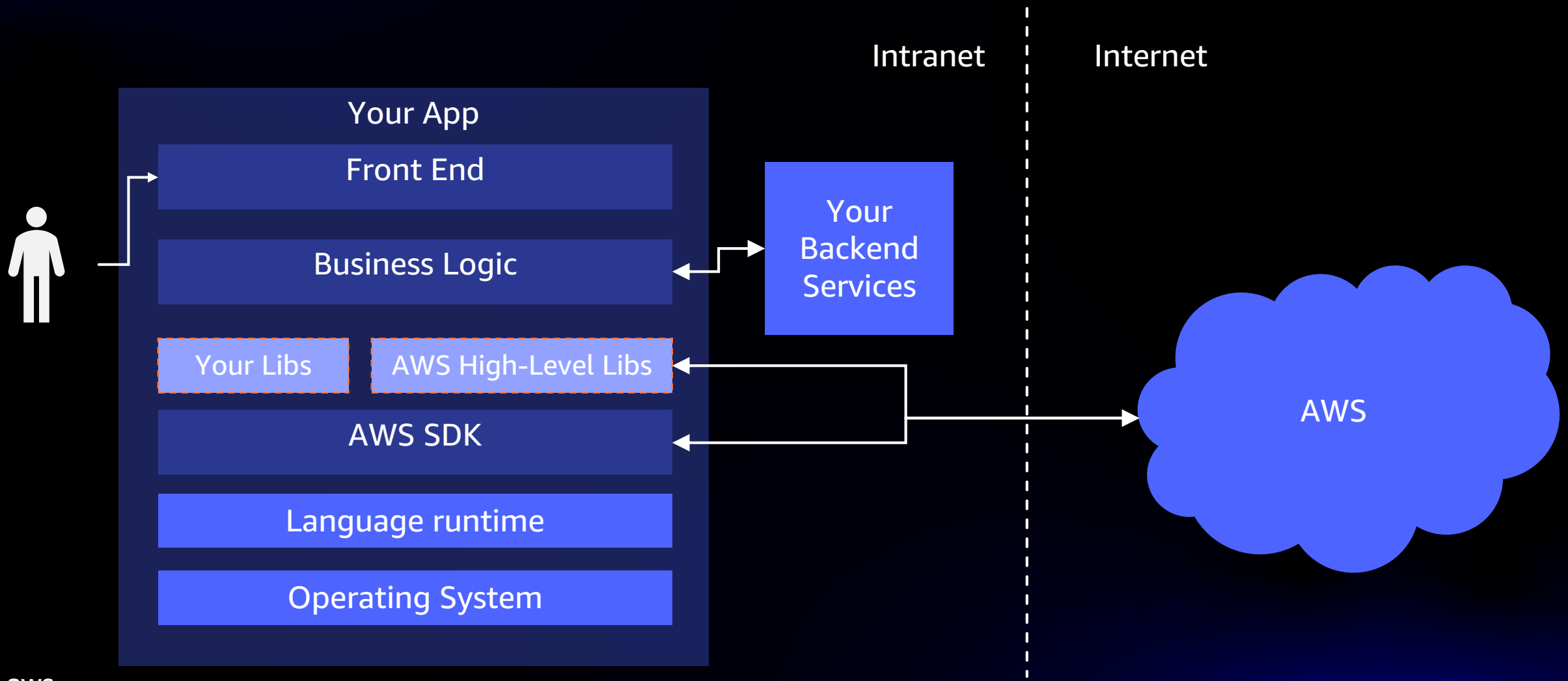
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Developer experience

- How do I get my dev environment set up?
- How do I test against a sandbox environment?
- How do I provide API access to my customers?

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Typical backend application architecture



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Let’s start building…

- … an app that stores opaque objects (use case: file persistence)
- … game leaderboard (use case: rapidly changing data + persistence)
- … note-taking application (use case: (un)structured data + interactivity)
- … an app that transcribes text on the fly (use case: transcription)
- Or suggest a different one

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Links/resources

- Getting started via the AWS Management Console: https://aws.amazon.com/getting-started/hands-on
- The samples Github repo: https://github.com/orgs/aws-samples/repositories
- Source to the samples within Service and SDK docs: https://github.com/awsdocs/aws-doc-sdk-examples
- Specific samples:
  - https://github.com/awsdocs/aws-doc-sdk-examples/ tree/ main/ javav2/ usecases
  - https://github.com/aws-samples/aws-sdk-js-notes-app

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Thank you!

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