# Serverless Overview *

- The maximum timeout you can configure in lambda is 15 mins.
- DynamoDB is a serverless with no servers to provision, patch or manage and no software to install, maintain or operate. It automatically scales tables up and down to adjust for capacity and maintain performance. It provides both provisioned and on-demand capacity modes.
- RCU and WCU are decoupled, so you can increase/decrease each value separately.
- DynamoDB Accelerator (DAX) is a fully managed, highly available, in-memory cache for DynamoDB that delivers upto 10x performance improvement. It caches the most frequently used data, thus offloading the heavy reads on hot keys off your DynamoDB table, hence preventing the "ProvisionedThroughPut Exceeded Exception" exception.
- DynamoDB streams allows you to capture a time-ordered sequence of item-level modifications in a DynamoDB table. It's integrated with AWS lambda so that you create triggers that automatically respond to events in real-time.
- To create a serverless API, you should integrate Amazon API Gateway with AWS lambda.

- An Edge-optimized API Gateway is best for geographically distributed clients. API requests are routed to the nearest CloudFront Edge Location which improves latency. The API Gateway still lives in one AWS Region. Lambda@Edge is a feature of CloudFront that lets you run code closer to your users, which improves performance and reduces latency.

- The maximum size of an item in a DynamoDB table is 400KB.

- Build serverless workflows using AWS services and support human approval:- AWS Step functions

- Use DynamoDB Accelerator (DAX) to cache the most requested read data.

- Most cost-effective way to convert DynamoDB data to json files: Select DynamoDB table and then select "Export to S3.

- There is a requirement to store user sessions for users logged in to the website with an automatic expiry and deletion of expired user sessions. Store user's sessions in a DynamoDB table and enable TTL. Amazon Cognito can be used to federate mobile user accounts and provide them with

their own IAM permissions, so they can be able to access their own personal space in the s3 bucket.

- Amazon Cognito lets you add user sign-up and sign-in, and access control to your web and mobile apps quickly and easily. Amazon Cognito scales to millions of users and supports sign-in with social media identity providers, such as apple, fb, Google and Amazon, and enterprise identity providers via SAML 2.0 and OpenID Connect.