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1. What is cloud computing?

Cloud computing is cloud service where we put everything on internet and networks.

e.g. box, drop box, google drive,

1. What is Serverless?

Server less is thing where server is managed by itself and we only focused on programming and development or server side things are managed by server.

1. What is SaaS and Server less SaaS?

(Software as service) we make software’s as services people don’t have need to develop them or server less means people only focused on developing not running the software

Infrastructure as service (AWS) load balancer manage by develop.

Platform as Service (all things are managed by server provider not by developer.)

Software as service (Email, Whatsapp, skype, zoom, adobe, vercel)

Server less SAAS (not managed by develop)

1. What is Event-Driven Architecture?

Event-Driven Architecture (EDA) is a design pattern used in software and systems engineering to build applications that respond to events or messages in a decoupled and asynchronous manner. In EDA, the flow of information within a system is driven by events, which are occurrences or changes in state that are of interest to the system. These events can be generated by various sources, such as user actions, sensors, external systems, or internal processes.

1. What is API’s?

API stands for "Application Programming Interface." It is a set of rules and protocols that allows different software applications or components to communicate with each other. APIs define the methods and data formats that applications can use to request and exchange information. They serve as intermediaries, enabling the interaction and integration of different software systems, services, or modules.

1. What is Restful Api’s?

Restful api’s give us common platform for different web services communicate.

1. What is GraphQL?

GraphQL APIs, often simply referred to as GraphQL, represent a query language for APIs and a server-side runtime for executing those queries by specifying the structure of the response data. GraphQL was developed by Facebook in 2012 and released as an open-source project in 2015. It has gained significant popularity in recent years as an alternative to traditional REST APIs.

1. What is IaC and Cloud Development Kit (CDK)?

Both IaC and CDK promote infrastructure automation, versioning, and collaboration, which are essential in modern cloud development and DevOps practices.

1. What is Typescript and why do use it as our default web programming language?

TypeScript is a programming language TypeScript is a statically typed superset of JavaScript that adds optional static typing to the language. It was developed by Microsoft and released as an open-source project. TypeScript provides developers with a more robust toolset for building web applications by addressing some of the limitations and challenges of JavaScript

1. What is Node.js?

Node.js is an open-source, server-side runtime environment built on the Chrome V8 JavaScript engine. It allows developers to execute JavaScript code on the server, enabling the development of scalable and high-performance web applications. Node.js is particularly well-suited for building real-time, networked, and data-intensive applications.

1. What is Web Assembly?

WebAssembly, often abbreviated as wasm, is an open standard and binary instruction format designed to enable high-performance execution of code in web browsers. It is a portable compilation target for programming languages, allowing developers to run code written in languages other than JavaScript on web browsers.

1. What is Lambda Functions?

Lambda functions are anonymous functions and not like normal functions its define when its needed.

1. What is Containers?

Containers are a lightweight and portable form of virtualization that allow you to package and run applications and their dependencies in a consistent and isolated environment.

1. What is cloud Formation?

Put all services on single location.

1. Multi Tenancy ?

* Login from Different places access on same time.
* Microbits (micro services for scale extensive used services)

After Installation

Version check aws –version

Aws Configure (for secret and access key or origin and output format)

Then typescript installation npm install -g typescript

For cdk installation npm install -g aws-cdk

Build a Hellow World

Fist making new direcoty which is totally null then init cdk cdk init app --language typescript

which is totally

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Creating s3 bucket we faced two type of errors   
this. (its import issue @aws-cdk/core)

Second one is cdk.construct error ? Keep import at latest way

Cdk synth (show yml format backend side)

Cdk deploy

Lambda function

Serverless code chalany ka mechanism ()

First lambda hit: https://yckgvcv83b.execute-api.us-west-2.amazonaws.com/prod/

import \* as cdk from "@aws-cdk/core"; // cdk Installation

import \* as lambda from "@aws-cdk/aws-lambda"; // Lambda

import \* as apigw from "@aws-cdk/aws-apigateway"; / api gateway

Cognito Keys Google:

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Today we create first website and connect appsync to lambda

So first we need to create bucket then we move to make html web (index.html)

Then import s3.bucket deploy for deplaoy our website in s3 bucket.

We use Cloudfront for url to access from s3.bucket kit

Web hit: http://dwjdhtn130k9n.cloudfront.net/

## Amazon CloudFront

Amazon CloudFront is a content delivery network operated by Amazon Web Services. The content delivery network was created to provide a globally-distributed network of proxy servers to cache content, such as web videos or other bulky media, more locally to consumers, to improve access speed for downloading the content

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Table: Collection

Record: Data

* NO SQL Store data in the form of JSON
* We need to give permission to every recourse to use other resource.
* Then add env variable to store seceret things

 