**M4: Modules 4**

Serverless Apps

• BaaS/mBaaS o Motivation, Choices (Firebase / Parse / Back4App )

• FaaS o Motivation, Options (AWS Lambda / Google Cloud Functions / Azure Functions

**BaaS/mBaaS o Motivation, Choices (Firebase/Parse/Back4App)**

**MBaaS:** Mobile backend as a service (MBaaS)

**MBaaS / BaaS Architecture**

**MBaaS (**Mobile backend as a service**) Providers**

1. **Back4App**
2. **Parse**
3. **Firebase**

**FaaS o Motivation, Options (AWS Lambda / Google Cloud Functions/Azure Functions)**

1. What is FaaS (Function-as-a-Service)?
2. AWS Lambda, Google Cloud Functions and Azure Functions
3. Serverless
4. Serverless Architecture
5. FaaS vs Serverless (FaaS is actually a subset of serverless)
6. PaaS vs FaaS (PaaS is very similar to FaaS)
7. Serverless on AWS (AWS Lambda)
8. AWS Serverless Use cases (web Backend, Mobile backend, IoT backend, Data processing)

**M5: Modules 5**

Cross Platform Mobile Applications Development

• Native Applications

o Platforms – Android, iOS etc.

o Framework choices, benefits, limitations

• Cross Platform – Native Applications

o Motivation, working

o Framework Choices (React Native, Xamarin, Flutter etc.)

• Cross Platform - Web Apps

o Purpose, working

o Framework Choices (Ionic, Cordova/PhoneGap, Capacitor)

**M6: Modules 6**

API Design

• Application Programming Interfaces

o Motivations, requirements, constraints

o API Paradigms

Over the years, multiple API paradigms have emerged such as

1. REST
2. RPC
3. GraphQL
4. WebHooks and WebSockets
5. Broadlycanbeclassifiedas
6. Request-Response APIs
7. Event Driven APIs

o API Platform Architecture

• API Design Practices

o Design of API

o Best practices

o Developer resources

• API Specification / Description

o Usage

o Languages

**M7: Modules 7**

API Management

• API as a Product

o Challenge of API Management

o API as a Product lifecycle

o Continuous API improvement

• API Landscape

o API teams

o API Management at scale

o Managing API lifecycle in an Evolving Landscape