Java Streams--------------------10/Sept/25

Functional Interfaces------------10/Sept/25

REST -----------------------(11/Sept/2025-15/Sept/2025)

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* Spring Webflux
* FilterChain
* Swagger OPen API Specs
* Flux & Mono
* Connect to a DB and perform CRUD
* Service to service interactions
* (REST -> graph, REST -> grpc)

GraphQL------------------------------(16/Sept/2025-19/Sept/2025)

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* SDL
* Scalars
* Directives
* QueryResolvers
* Mutation Resolvers
* Entity Resolvers
* Field REsolvers
* SchemaWiring
* Apollo Federation concepts
* Ferderation specs --> @Key, @extends, @sharable, @external etc
* Apollo Gateway
* Service to service interactions
* GraphQL -> grpc GraphQL -> REST

grpc-----------------------------(20/Sept/2025-23/Sept/2025)

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* Proto
* 4 types of Streaming in grpc
* Managed Channel
* Service to service interactions
* grpc to REST and grpc to GraphQL
* UTs
* Junit
* Mockito

Task:--------------------------------------to be completed by 26/Sept/2025

1)GraphQL API Layer (Client-facing):

-Exposes queries/mutations.

-Accepts client requests including an encrypted JWT token.

-Forwards these requests to the gRPC Authentication Gateway via gRPC calls.

2)gRPC Authentication Gateway Service:

-Receives request with encrypted JWT token and parameters.

-Decrypts the JWT token using configured cryptographic keys (e.g., AES-256 symmetric key or RSA private key).

-Validates the decrypted JWT token signature and standard claims (issuer, expiry, subject).

-If authentication fails, returns an auth error via gRPC.

-If authentication succeeds, forwards the request by calling the underlying REST API backend to get or manipulate protected data.

-Sends REST API responses back in its gRPC response.

3)REST API Backend:

-Provides the actual business data or operations (e.g., user profile, orders).

-Accessible only by the gRPC service after authentication.