

## Episode - 2

### Features, HLD, LLD & planning

- planning is the most important & crucial part in project development.
- Proper planning avoids refactoring the code.
- 1st step in planning is gathering the requirements of the project
- 2nd step is Planning the features of our app
- 3rd step is Designing our app which include High Level Design (HLD), Low Level Design (LLD).

#### High Level Design:

- HLD is designed by the senior engineer & Tech Leads.
- They decide the project architecture like
  - \* ) what are the microservices the project should have?
  - \* ) what tech stack each microservices should use?
  - \* ) How these microservices communicate with each other?
  - \* ) what are the security practices should be taken?
  - \* ) Optimization techniques & so on.

#### Low Level Design:

- LLD is Designed by developers, SDE1, SDE2.
- They decide on various factors like
  - \* ) what database should be used?
  - \* ) what are all the collections it should have?
  - \* ) How the document structure should be in each collection?
  - \* ) How the schema & model should look like?



\*) what are all the API it should have?

1) what is REST API?

→ A REST API (Representational State Transfer API) is a type of API that uses REST architecture to connect applications.

→ It is nothing but a set of rules that allow programs to communicate with each other using HTTP requests.

→ REST API's are commonly used in client-server architecture and microservices, web API's.

2) what are the characteristics of REST API?

→ It should be lightweight, highly scalable, flexible, stateless, Uniform Interface.

Stateless:

→ Each request from client to server must contain all the information needed to process the request.

Uniform Interface:

→ REST API's uses standard HTTP methods.

GET - to get data from the server

POST - to add a new data on the server

PUT - update the entire doc with the new one

PATCH - update only the part of the document

DELETE - to delete the document from a collection.

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