lec 10 Ludo code

(1) WHAT IS REST   (2) REST $\neq$ HTTP

(3) CURD API

4) Book catalaug example to build REST API's

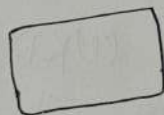5) Security Concern & error handling

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(1) WHAT IS REST

Representational State Transfer —

→ It is 5-6 guidelines that have to be followed in client server architeture for data to be exchanged betn client and server.
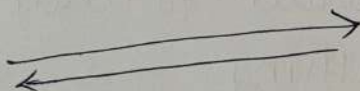
→ REST is guidelines that defines how ~~client and~~ representational data can be exchanged betn client & server. Oo as to fulfil the requirements of an application.

→ Mostly web appln uses REST API to intract with server

Eg¹

web appln

Sno	nm	rca
1	aa	20
2	bb	30
3	cc	40

server

Set of rubs / guidelines that both client & servers agrees to define how the data would be shown on our frontend

Eg REST API for youtube:

youtube.com

GET → channels → show all channel

GET → channels / 1 → show all channel with id 1

GET → channels → creat channel

POST → channels / 1 → update channel

PUT

DELETE → channel 1 → delete channel

Eg GET channels/1 /videos/1
→ get first video from first channel

Eg GET channels /1 /videos
→ get all videos from first channel

REST API → common commun interface used for commun bet^n client & server. It has a set of Rules that API follows. for commun bet^n client & server

insta ——————→ server

API Url →

http:// nayandas.dev /api /v1 / projects

protocol   domain   uri

version ↑

resource that
want to access ↗

what are http methords?

POST → when we want to create
GET → fetch something
PUT — update completely
PATCH → Partially update
DELETE → Delete Some resource

CURD OPERATIONS

serve webapp   API request ——————→ server

←—————— API response

every API requit has API response
each response has a status code (thy are z 3 Types)
→ 200 - 299 → Success range
- 400 -- 404 → issue with req (eg uri to wrong)
- 500 - 505 → server side issue.

Rest API are mainly go'd for making app^ns that require real-time communication eg, chatapp^n → watsapp.
Streaming app eg amajon prime, netfix.

Que) which protocols are used in REST API

Ans → only HTTP

Que) which kind of data REST API returns.

Ans → data in JSON or XML format, plantxt, image
html.

Que what are http methords of REST API

Ans — GET, POST, PUT, DELETE, PATCH.

Que Rest API are suitable for which type of app^n.
Simple real time applications that include CURD operations.

→ REST API can be public or private.
→ private REST. API's can only be accessed from VPC
Virtual private cloud, they are isolated from public internet.
→ Public. Rest Api — anyone can access this without any authen ciation. or from public internet

web API = SOAP API + REST API

SOAP API

→ SIMPLE OBJECT ACCESS PROTOCOL

→ There are set of rules that needed to be followed while making SOAP. API

→ Both request & Response communication happens only using XML data format

→ SOAP is a messaging protocol
  - it is used for exchanging structured data beth
  & two different applications

→ use us' to exchange data beth 2 appl^n
  info
  regardless of platform or programming language
  used

→ data types included in XML is
  text, nos, dates, binary date

⚡ What transport protocols are supported by
  SOAP API

And   http, SmEp & FTP

⇒ It provides security mechanism like
  digital signature & encryption.

<u>used</u>   SOAP is used in big enterprise, business appl^n
where complex data structure & buisness appl^s
are used, also used in appl^n where high
security is required while exchanging data beth
appl^n