S.No	Topic	Status
1	Microservices	Done
2	Graphs, Subgraphs and Gateway	Done
3	Drizzle ORM with Mysql and Nodejs (including connection , migration and seeding)	Done
4	Nestjs (project structure, DIs)	Done
5	Graphql	Done
6	Apollo Server	Done
7	Code First Approch	Done
8	Authentication	Done
9	Package Management	Done
10	Fastify	Done
11	Typesafety , eslint for linting	Done
12	prettier	Done
13	data class validators nestjs	Done
14	Apis with CRUD, dashboard and user activity monitoring service	Done
	Channels	Done
	Users	Done
	Posts, Likes , Comments , Replies	Done
15	Dashboard functionality	Done
16	User Activity	Done
	users tracking	Done
	Post activities	Done
	Reply activities	Done
	Comment Activity	Done
17	RBAC Authorization	Done
18	Testing of features	Done
	user-service (RBAC) + Features	Done
	Gateway	Done
	Post service features + RBAC	Done
19	Containerization using Docker	Done
	How to generate build	Done
	How to write dockerfile	Done
	How to write docker compose yml file	Done
	Cli commands to work with docker	Done
	Configurations and setup	Done
	Port mapping and concepts like containerization of	Done
20	Learning about caching and redis	Done
21	Security features	Done
	CORS for url limiting	Done
	@Fastify/rate-limit (for protection from DDOS attacks)	Done
	class-validators for protection from SQL injection like attacks	Done

		JWT tocken for hashing of password + Authenticating user securely	Done
		Some additional security topics covered theoretically - Throttling (secures from malicious requests and prtects server from getting crashed) - Fastify/helmet for secure connection	Done
	22	Study on how to make Robust systems -high availability, fault tolerance, security, scalability, and maintainability	Done
	23	Need of web sockets and how service like kafka helps in threadhive like projects to manage notification and event monitoring from liked post to view page with low latency and high throughput.	Done
		Code management using Github project link - > https://github.com/arthgupta11/ThreadHive with updated readme	Done
	25	Unit testing using jest	Done
		Users CRUD	Done
		User Channels Mapping CRUD	Done
		using nestjs/testing	Done
		resolver testing + rbac testing + CRUD dAO TESTING	Done