

The course has been conducted in two stages-

- 1) 0-1
- 2) 1-100

Here is the syllabus of both parts-

0 to 1	
Foundation Foundation Javascript, async nature of JS Node.js and its runtime Databases (NoSQL/SQL) Mongo and Postgres deep dive Typescript beginner to advance	Frontend Reconcilers and Frontend frameworks React beginner to advance Internals of state, Context API State management using recoil CSS you need to know of, Flexbox, basic styling Frontend UI frameworks, Deep dive into Tailwind Containerization, Docker Next.js Custom hooks In house auth using next auth
Backend Backend communication protocols Express basic to advance ORMs Middlewares, routes, status codes, global catches Zod MonoRepos, turborepo Serverless Backends OpenAPI Spec Autogenerated clients Authentication using external libraries Scaling Node.js, performance benchmarks Deploying npm packages	Basic Devops Docker end to end Deploying to AWS servers Newer clouds like fly/Remix Nginx and reverse proxies
	Projects GSoC Project setting up and issue solving Building Paytm/Wallet End to End

1 to 100	
Advanced Backend, System Design Advanced backend communication Message queues and PubSubs Proxies, Load balancers Redis Deep dive Kafka Deep dive Common Design Patterns in JS Advanced DB concepts (Indexing, normalization) Rate limiting Captchas and DDoS protection Sharding, Replication, Resiliency Horizontal and vertical scaling Polling and websockets Grpc Capacity Estimation Load Balancers CAP Theorem Testing Node.js Apps in 2023 Real time communication, basics of WebRTC	Advanced Devops Docker Deep dive Container orchestration, Docker Swarm Kubernetes CI/CD Monitoring systems basics to advance Prometheus, Grafana Newrelic as a paid service Serverless Deep dive AWS Constructs (EC2, S3, CDNs, LB, EKS)
	Projects Zerodha end to end Zapier end to end Real world open source projects