

Communication Techniques

- **Module Introduction**
- **Akshay & Chirag's Experience**
- **Overview**
- **Short Polling**
- **Long Polling**
- **Web Sockets**
- **Server Side Events**
- **WebHooks**
- **Pros & Cons of each**
- **Working Examples**
- **Interview Questions**



Database & Caching

- **Module Introduction**
- **Overview**
- **Local Storage**
- **Session Storage**
- **Cookie Storage**
- **Indexed DB**
- **Normalization**
- **HTTP Caching**
- **Service Working Caching**
- **API Caching**
- **State Management**
- **Interview Questions**



High Level Design (HLD)

- **Module Introduction**
- **Overview**
- **HLD - Social Media Feed (Facebook, Twitter)**
- **HLD - Photo Sharing App(Instagram)**
- **HLD - E commerce App(Amazon, Flipkart)**
- **HLD - Video Streaming(Netflix, HotStar)**
- **HLD - Google Docs**
- **HLD - Google Sheets**
- **HLD - Diagram Tools(Excalidraw)**
- **HLD - Music Streaming (Spotify)**
- **HLD - Live Commentary (CricInfo, Crickbuzz)**
- **HLD - Cab Services(Uber, Ola)**
- **HLD - Analytics Dashboard (Google Analytics)**
- **Interview Questions**



Low Level Design (LLD)

- **Module Introduction**
- **Important Design Patterns**
- **Component Design**
- **State Management**
- **Routing**
- **SOLID Principles (Best Coding Practices)**
- **LLD - Infinite Scroll**
- **LLD - Nested Comments**
- **LLD - Pagination**
- **LLD - Image Carousel**
- **LLD - Live Streaming Chat UI**
- **LLD - Autocomplete/ Search Bar**
- **Interview Questions**



Logging & Monitoring

- **Module Introduction**
- **Overview**
- **Telemetry**
 - **Error Logging**
 - **Feature Usage**
 - **User Tracking**
 - **Working with Tools**
- **Alerting**
 - **Performance**
 - **Infra Capacity,**
 - **Error Threshold**
 - **API Failure**
- **Fixing**
 - **Prioritization, Debugging**
 - **Mitigation**
 - **Prevention**
- **Interview Questions**



Networking

- **How web works**
- **Communication Protocols**
- **Rest APIs**
 - Overview
 - HTTP Req/Res with Headers
 - HTTP Methods
 - HTTP Status Codes
 - Best Practices + Examples
- **GraphQL**
 - Overview
 - Schema/Types
 - Query/Mutation
 - Resolver
 - Working Examples
- **gRPC**
 - Overview
 - Service Definition
 - RPSC Methods
 - IDL (Interface Definition Language)
 - Code Generation
 - Working Examples



Offline Support

- **Module Introduction**
- **Overview**
- **Progressive Web Applications (PWAs)**
- **Service Workers**
- **Interview Questions**

Accessibility

- **Overview**
- **Keyboard Accessibility**
- **Screen Reader**
- **Color Contrasts**
- **Interview Questions**



Performance

- **Module Introduction**
- **Akshay & Chirag's Experience**
- **Overview**
- **Asset Optimization**
- **Network Optimization**
- **Build Optimization**
- **React Optimization**
- **JavaScript Optimization**
- **Performance Monitoring**
- **Performance Tools**
- **Rendering Pattern**
- **Interview Questions**



Security

- **Module Introduction**
- **Akshay & Chirag's Experience**
- **Overview**
- **Cross Site Scripting (XSS)**
- **Cross-Site Request Forgery (CSRF)**
- **iFrame Protection**
- **Authentication / Authorization**
- **Security Headers**
- **Client Side Security**
- **Secure Communication(HTTPS)**
- **Dependency Security**
- **Compliance & Regulation**
- **Input Validation and Sanitization**
- **Server-Side Request Forgery (SSRF)**
- **Server-side JavaScript Injection (SSJI)**
- **Feature Policy | Permissions-Policy**
- **Subresource Integrity (SRI)**
- **Cross-Origin Resource Sharing (CORS)**
- **Interview Questions**



Testing

- **Module Introduction**
- **Akshay & Chirag's Experience**
- **Overview**
- **Unit Testing**
- **Component Testing**
- **Integration Testing**
- **e2e Testing**
- **A/B testing**
- **Test Drive Development Overview**
- **Automation Testing**
- **Testing Tools & Libraries**
- **Interview Questions**

