Next.js + NestJS Interview Prep Booklet

PART 1: KEY CONCEPTS (Summary Points)

Next.js Essentials

- React-based framework supporting SSR and SSG.

- File-based routing with /pages.

- getStaticProps, getServerSideProps, getStaticPaths.

- App directory (server components, layout, loading).

- Image optimization via next/image.

- Deploy on Vercel.

NestJS Essentials

- Node.js framework using TypeScript and DI.

- Modules, Controllers, Services.

- Middleware vs Guards.

- Interceptors, DTOs, class-validator.

- JWT Auth with AuthGuard.

- TypeORM/Prisma + PostgreSQL.

PostgreSQL

- SQL commands: SELECT, INSERT, UPDATE, DELETE.

- Joins, PK, FK, Indexing, Views.

PART 2: TECHNICAL MCQs

Next.js

1. What does getServerSideProps do? B

2. Routing defined in? C

3. Image optimization default? C

4. Hook for navigation? C

NestJS

1. @Injectable()? B

2. Handle routes? C

3. DTOs purpose? C

4. @Get used for? D

PART 3: INTERVIEW QUESTIONS

Next.js

- Difference between SSR and SSG.

- Secure API route with middleware + JWT.

- Auth flow in Next.js.

NestJS

- Login system with JWT.

- Validate data with DTOs.

- PostgreSQL usage via TypeORM.

- Guards vs Middleware.

PART 4: AUTH (JWT)

- JWT = Header + Payload + Signature.

- Used in stateless auth.

- NestJS: JwtAuthGuard, JwtStrategy, req.user access.

PART 5: DATABASE (PostgreSQL)

- SQL: SELECT, INSERT, UPDATE, DELETE.

- NestJS TypeORM with @Entity, @InjectRepository.

PART 6: PRACTICE TASKS

- Implement login/signup with JWT.

- Fetch users in Next.js with getServerSideProps.

- Protected route in Next.js.

- Middleware logger in NestJS.

- Secure API route in Next.js.

Final Tips

- Review PostgreSQL joins, JWT storage, Next.js data fetching, NestJS guards and routes.