

Backend and database feature requirements:

1. Authentication:

- Signup/Login with Mobile or Email
- OTP or Email Verification Page
- Role Selection: Admin, Teacher, Student
- Admin Approval Page for New Teachers

2. Admin Authorities:

- View & Approve Teacher Signups
- Create Users with Roles
- View Reports by Day/Month/Year
- View Questions Uploaded by Teachers
- Track Student Access Logs

3. Teacher:

- Upload CSV of Questions
- Generate Question Papers (input: Class, Exam Type, Duration)
- View/Download Past Papers
- Check work history and see usage reports by hrs worked, question papers generated, files uploaded etc.

4. Student:

- Search and Download Previous Year Question Papers by Class, Subject, Year

BACKEND API STRUCTURE

Authentication APIs

- `POST /auth/signup` – Register with email/mobile
- `POST /auth/verify` – OTP or link verification
- `POST /auth/login` – User login

Admin APIs

- `GET /admin/pending-teachers` – Get pending approvals
- `POST /admin/approve-teacher/:id` – Approve teacher
- `GET /admin/users` – List all users
- `GET /admin/reports` – Filter logs by date/user

Teacher APIs

- `POST /teacher/upload-questions` – Upload CSV
- `GET /teacher/question-papers` – Get list of generated papers
- `POST /teacher/generate-paper` – Generate paper with input params

Student APIs

- `GET /student/papers` – Browse old papers
- `GET /student/download/:id` – Download specific paper

Common APIs

- `GET /profile` – View profile info
- `PUT /profile` – Update profile
- `GET /classrooms` – Get available classes & sections