Full Stack

Mini-Platform for Athlete Performance Insights

Objective:

Build a mini-platform that allows coaches to upload performance videos, tag athletes, and review key performance metrics — simulating a light version web-based analytics platform.

Deliverables:

- Link to GitHub repo with full source code of a functional web app (frontend + backend)
- RESTful API
- Database schema
- Detailed setup instructions & documentation in a `README.md` (setup, API usage, tech choices)

Features:

1. Athlete Management

- Create, update, delete athletes (name, sport, age, unique ID)
- List all athletes with basic stats

2. Video Upload + Tagging

- Upload a video file (MP4 or MOV) (store locally or simulate S3)
- Tag athlete(s) to the video
- Store metadata (upload date, duration, linked athletes)
- Mock processing (no real ML) — simulate analysis status (e.g., "Processing", "Complete")

3. Performance Recording

- Allow users to manually input performance metrics per video (e.g., "Sprint Time", "Jump Height")
- Display metrics in athlete profile with timestamps and video links

4. Dashboard View

- Display list of all athletes
  Show recent videos per athlete + performance summaries
- Filter by sport, date range

Technical Requirements:

Backend:

- Node.js (Express) or Python (FastAPI/Django REST)
- RESTful API design
- File upload handling (store on local disk or cloud mock like AWS S3 emulator)
- SQLite/PostgreSQL
- Simulated video analysis via status updates

Frontend:

- React (preferred) or any modern framework
- Use Material UI or Bootstrap for simple styling
- Forms for athlete entry, metric input, and video upload
- Table or card view for dashboards

Bonus (Not Required, But Nice to See):

- Simple authentication (admin login)
- Video preview in UI
- Asynchronous status update (simulate "processing" with delay)

Evaluation Criteria:

- Clean architecture and code organization
- Proper RESTful practices
- Usability of UI (intuitive navigation, clean forms)
- Thoughtful database modeling
- Documentation clarity (especially setup and tech stack choices)

Time Estimate

3 working days