

Objective: Implement complaint management APIs and DB schema.

Tasks:

1. Define models: Complaint, User, Officer, MessageLog
2. Create REST endpoints:
  - POST /api/complaints
  - GET /api/complaints/{ref\_id}
  - GET /api/complaints?status=open|closed
3. Generate unique reference IDs (UUID)
4. Add RBAC: citizen, officer, admin
5. Add input validation & sanitization (Pydantic)
6. Implement audit trail & status update logic.

Deliverables:

- backend/app/models/\*
- backend/app/routers/complaints.py
- backend/app/services/db\_service.py
- backend/tests/test\_complaints.py