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## LUMENPATH — TASK SHEET

**Project:** Qatar Ministry of Transport (.NET Core Project)

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### 1. Roles & Access

- Add user roles directly into DB: **Admin, Document Verifier, Final Approver, Ministry Officer, Owner.**
  - Enforce all role-based dashboards and actions accordingly.
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### 2. User Master (No Delete)

- Fields: Name, Email, Phone, QID, Role (FK), Username, Password, Status (Active/Inactive).
  - Deletion disabled — allow only activate/deactivate.
  - Track: CreatedBy/CreatedAt, UpdatedBy/UpdatedAt.
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### 3. Authentication

- OTP login: Owner & Ministry Officer.
  - Username/password login: Admin, Document Verifier, Final Approver.
  - Implement rate-limiting for OTP requests and record login attempts.
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### 4. Lockout (Admin Managed)

- Admin can configure:





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- Maximum failed login attempts
  - Lockout duration
  - Manual unlocks
  - Applies only to username/password users.
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## 5. Status Workflow

Step	Action	Resulting Status
Register Form Submission User		Pending
Verification	Document Verifier	Under Review
Final Approval	Final Approver/Admin	Approved or Rejected

- Maintain **StatusHistory** table with: RecordId, OldStatus, NewStatus, ActionByUserId, Role, Timestamp, Remarks/Description.
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## 6. Dashboards by Role

- **Document Verifier:** View only “Pending”.
  - **Final Approver/Admin:** View “Pending” and “Under Review”; can Approve/Reject (remarks required).
  - **Owner:** Read-only view of all register forms.
  - **Ministry Officer:** OTP login; view only “Approved” records.
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## 7. Register Form UX

- Show loader during submission; disable button while processing.
- Success modal includes:





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- Reference/Application No. (system unique series)
  - Status (Pending)
  - Read-only link (tokenized)
  - “Copy Link” / “Download PDF” buttons
  - Confirmation page mirrors modal.
  - Handle failures gracefully with retry options.
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### 8. Read-Only Details Link

- Generated using system unique series number (not raw ID).
  - Public read-only view.
  - Token validated server-side; all views logged.
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### 9. Final Approval / Rejection & Notifications

- When Final Approver/Admin acts:
  - Update record status to Approved/Rejected.
  - Capture remarks/description (mandatory for rejection).
  - Generate or reuse system unique series number.
  - Notify user via SMS with:
    - Application/Reference No.
    - Status (Approved/Rejected)
    - Description/remarks
    - Optional short link
- Queue messages; retry on failure.





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- Store SMS delivery status (Queued → Sent → Delivered/Failed).
  - Display delivery status in record timeline.
  - Prevent duplicate sends (idempotent actions).
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## 10. Email Notification Settings (Admin Configuration)

- Admin can configure email setup:
    - SMTP host, port, username, password (encrypted)
    - From address and display name
    - Test email button for verification
    - Toggle ON/OFF email notifications
  - On successful registration submission:
    - Send email to configured Admin/Notification address with summary (Ref No., Date, Submitted By).
  - Log all emails with Recipient, Subject, Status, Timestamp.
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## 11. Exports & PDF Generation

- **Individual Record Page:**
  - “Export PDF” option with logo, Reference No., Status, Approved By, Approval Date/Time.
  - Include all fields, remarks, timestamps.
  - Add watermark per status.
  - Optional QR code (read-only link).
  - Filename format: Application\_<RefNo>\_<Status>\_<YYYYMMDD-HHMM>.pdf





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- **Owner Dashboard:** Export filtered results (CSV/XLSX/PDF).
  - Log all export events.
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## 12. Pagination, Filtering & Sorting

- Server-side pagination (10/25/50/100).
  - Sort by Updated Date (default desc), Created Date, Status, Approved By.
  - Persistent filters with clear option.
  - Empty-state handling.
  - Exports respect applied filters.
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## 13. Mobile-Friendly Dashboard

- Fully responsive design (cards for mobile, tables for desktop).
  - Touch-friendly UI with sticky filter header.
  - Fast loading and adaptive layout.
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## 14. Profile Page

- Editable fields: Name, Email, Phone, Password, Photo ( $\leq 2$  MB JPG/PNG/WebP).
  - Include cropping and reset options.
  - Log all edits with EditedBy, EditedAt.
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## 15. Website PDF Download Link

- Add static download link for Admin-provided PDF (pending file).
- Position: Homepage/Footer/Resources (to be confirmed).





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- Optionally track downloads.
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## 16. Security & Privacy

- Use system unique series number (no incremental IDs).
  - Encrypt sensitive data (email/phone).
  - Rate-limit OTP and approval actions.
  - WCAG AA compliance (labels, contrast, keyboard navigation).
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## 17. Auditing & Logging

- Log all major actions:
    - Status changes
    - Approvals/Rejections
    - Notifications (SMS/Email)
    - Exports & PDF generation
    - Profile updates
    - Login & OTP events
  - Include UserId, Role, Timestamp, Action, Context.
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## ✓ Acceptance Checklist

- Role-based dashboards functional.
- Status flow: Pending → Under Review → Approved/Rejected.
- Email settings configurable and testable.
- SMS notifications include description.





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- All tokens replaced by system unique series number.
  - PDF export and filtering verified.
  - Responsive dashboard & profile management operational.
  - Audit logging covers all major actions.

