■ OncoSecure – Graduation Project (Part 2) Proposal

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■ Project Overview

OncoSecure is a secure web-based system focused on breast cancer prediction and awareness. Since the project scope is limited to female patients only, the registration will not include gender selection. The system connects Patients, Doctors, and an Admin in one secure environment. It integrates an AI Prediction Service that analyzes patient data and predicts the risk level (High / Low) of breast cancer. The project emphasizes Cybersecurity as the core requirement.

■ Main Features

■ Patient (Registration & Services)
- Register in the system (female-only).
- Login securely (with OTP reset for password recovery).
- Edit personal profile.
- Book appointments with doctors.
- View AI prediction results and doctor recommendations.

■ Doctor (Medical Role)
- Registered only by Admin.
- Manage patient medical history.
- Add patient reports (family history, symptoms, test results).
- Send patient data to the AI model for prediction.
- View prediction results (High/Low Risk).
- Add medical recommendations for each patient.

■ Admin (System Control)
- Default account in the system.
- Manage and register doctors.
- View Security Logs (logins, failed logins, predictions, appointments).

■ Security Features

- Password Hashing using password_hash() & password_verify().
- Secure DB Connection via PDO + Prepared Statements.
- CSRF Tokens in all forms.
- Session Security with session_regenerate_id().
- Stronger Captcha at login.
- OTP Verification for password reset via email.
- Logging System to track all sensitive operations.
- Role-based Access Control (RBAC): Patient, Doctor, Admin.

■ Database Design (ERD Summary)

- Users: (Admin, Doctors, Patients).
- Patients: Extended info (age, weight, history).
- Appointments: Patient ↔ Doctor booking.
- Medical Reports: Doctor notes & test results.

- Predictions: AI results + doctor recommendation.
- OTP: Secure password reset.
- Logs: Audit trail of all critical actions.

■ Deliverables (What You Will Get)

- System Architecture Diagram.
- Data Flow Diagrams (Level 0, 1, 2).
- Use Case Diagram.
- Entity Relationship Diagram (ERD).
- Full Web Application (PHP Native + Bootstrap):
• Registration & Login (with OTP Reset).
• Dashboards (Admin, Doctor, Patient).
• Appointment booking system.
• Doctor report management.
• AI integration (Prediction High/Low Risk).
• Security Logs view.

■ Optional Services (Not Included in 70 OMR)

- SSL Setup (for https secure domain).
- Export Feature for Logs/Reports (PDF/Excel).

If required, these will be charged separately.

■ Timeline

- Week 1–2: Database setup + Auth system (Register, Login, OTP).
- Week 3: Dashboards for Admin, Doctor, Patient.
- Week 4: AI integration + Reports & Predictions.
- Week 5: Security features (CSRF, Captcha, Logs).
- Week 6: UI/UX polishing + Final Testing.
- Week 7: Final Delivery + Documentation.

■ Budget

- 70 OMR (Fixed) → covers all core development, diagrams, and delivery.
- Extra Services (SSL, Export Reports/Logs) → require additional payment.

■ Final Note

This proposal covers everything needed for the Part 2 (Final Implementation) of the project. The scope is final and fixed — no further modifications will be included after delivery. The system will be ready for demo, presentation, and supervisor evaluation.