DETAILED MOSCOW PRIORITISATION FOR UNILAG / CMUL TELEHEALTH

Legend for columns in all tables:

- **Item**: feature or requirement

- **Description**: what it is and what it does

- **FR**: functional requirement mapping (FR1..FR11)

- **Acceptance Criteria (AC)**: measurable tests that show the feature is done/acceptable

- **Dependencies**: technical/operational items required first

- **Key Risk**: main risk if not implemented correctly

- **Est. Effort**: S / M / L (small/medium/large) — for planning only

- **Owner**: recommended accountable role

- **Phase**: MVP/Phase 2/Phase 3

MUST-HAVE (Essential for MVP: cannot go live without)

Item	Description	FR	Acceptance Criteria (AC)	Dependencies	Key Risk	Est. Effort	Owner	Phase
SSO Authentication (UNILAG)	Student & staff login via university SSO; session management	FR1	AC1: Student can log in with UNILAG credentials. AC2: SSO token validated & expiry handled. AC3: 99% of test accounts can login.	Access to UNILAG IdP, API credentials, ICT coordination	Integration failure causing lockouts	M	ICT Lead	MVP

Item	Description	FR	Acceptance Criteria (AC)	Dependencies	Key Risk	Est. Effort	Owner	Phase
Role-Based Access Control (RBAC)	Define roles (student, doctor, nurse, admin, pharmacist, support) and enforce permissions	FR1, FR11.1	AC1: Role-specific menus show/hide correctly. AC2: Attempt to access unauthorized resource returns 403.	SSO, user directory	Data leakage via wrong roles	M	Security Lead	MVP
Consent & Privacy Workflow (NDPR)	Explicit consent capture, privacy notice during onboarding	FR1, NFR1	AC1: Consent recorded in EMR with timestamp. AC2: Users can withdraw consent; audit trail recorded.	Legal sign-off	Regulatory non-compliance	S	Legal Officer	MVP
Consult Now (Real-time) — Audio w/ fallback	Immediate consultation channel (audio mandatory; video optional)	FR4	AC1: Initiate audio session < 30s in good network. AC2: Audio fallback automatically used if video fails. AC3: At least 90% success in pilot trials.	Media API (WebRTC), bandwidth handling	Poor call quality, dropped calls	L	Vendor / DevOps	MVP
Appointment Booking (Virtual & Physical)	Users view availability, book slots, cancel/reschedule	FR2, FR11.2	AC1: Booking success = 95% in tests. AC2: Calendar shows accurate availability. AC3: Notifications	Schedules in admin console; timezone handling	Double booking due to race conditions	M	Admin Manager	MVP

Item	Description	FR	Acceptance Criteria (AC)	Dependencies	Key Risk	Est. Effort	Owner	Phase
			sent on booking change.					
Basic Digital Triage Form (Rule-based)	Structured triage questions; flags red/amber/green	FR3	AC1: Form captures required fields; AC2: Flagging rules map to emergency/urgent/non-urgent; AC3: Logged to EMR.	Clinical triage protocol, forms design	Mis-triage causing safety issues	M	Clinical Lead	MVP
Teleconsultation Workflow & Pre-assess	Provider sees triage summary & EMR before consult	FR4, FR5	AC1: EMR data loads within 3s. AC2: Triage summary visible to clinician pre-call.	EMR-lite provision	Missing patient context	M	Medical Centre Director	MVP
EMR-lite: Consult notes, basic profile, prescriptions	Create, read, update consult notes; prescription record	FR5	AC1: Notes saved & retrievable immediately. AC2: Prescription entries include drug, dose, frequency.	Secure DB; audit trails	Loss of records	L	Medical Records Lead	MVP
E-Prescription (basic)	Generate e-prescription; student dashboard & pharmacy notification	FR5	AC1: Prescriptions appear in student view. AC2: Pharmacy receives a dispatch request. AC3: Interaction warnings on common drugs.	Pharmacy contact/integration	Wrong prescription data	M	Pharmacy Lead	MVP

Item	Description	FR	Acceptance Criteria (AC)	Dependencies	Key Risk	Est. Effort	Owner	Phase
Notification Engine (SMS/Email/Push)	Send appointment reminders, prescription ready, follow-ups	FR6	AC1: 95% delivery rate for test messages. AC2: Unsubscribe prefs honored.	SMS gateway, email provider	Message delivery failures	M	ICT / Comms Lead	MVP
Helpdesk Ticketing & KB	Submit tickets, status tracking, searchable knowledge base	FR9, FR10.1, FR10.2	AC1: Ticket created & ID issued. AC2: Ticket status updates emailed/in-app. AC3: KB searchable returns relevant articles.	Support team staffing	Ticket backlog	M	Support Manager	MVP
Admin Console: Schedules & User Mgmt	Admins manage clinic hours, provider slots, create users	FR11.1, FR11.2	AC1: Admin can edit schedule and see immediate effect. AC2: Audit log for changes.	RBAC, SSO	Schedule misconfiguration	M	Admin Manager	MVP
Automated Note-taker (basic transcription)	Auto capture consult text (supporting clinician notes)	FR4, FR5	AC1: Transcripts available within 1 minute after call. AC2: Clinician can accept/edit before saving.	Speech-to-text service	Poor transcription accuracy	M	Vendor	MVP
Basic Analytics Dashboard	Usage, #consults, wait	FR7	AC1: Dashboard displays daily	EMR data feed	Misleading metrics	M	Analytics Lead	MVP

Item	Description	FR	Acceptance Criteria (AC)	Dependencies	Key Risk	Est. Effort	Owner	Phase
	times, booked vs completed		metrics. AC2: Export CSV.					
Security Controls: TLS, encryption-at-rest	All transport encrypted and stored data encrypted	NFR1	AC1: All endpoints use TLS1.2+. AC2: DB encrypted at rest.	Security certs, hosting	Data breach	M	Security Lead	MVP
Operational SLA & Monitoring	Uptime monitoring, alerting, on-call rota	NFR6	AC1: 99.5% uptime monitored. AC2: Alerts to on-call within 5 minutes.	Monitoring tools	Slow incident response	S	DevOps	MVP
Basic Notifications for Emergency Redirect	Triage critical triggers immediate alerts to security & med centre	FR3	AC1: Emergency alerts reach on-call staff <1 minute. AC2: A record created in EMR.	Contact list, on-call processes	Missed critical alerts	S	Clinical Lead	MVP

Notes: these are the non-negotiable items for a safe, legally-compliant pilot. If any of these fail the acceptance criteria during UAT, the pilot should not launch.

SHOULD-HAVE (Important; deliver in Phase 2)

Item	Description	FR	AC	Dependencies	Key Risk	Est. Effort	Owner	Phase
AI-assisted Symptom Checker (validated)	ML-assisted triage suggestions (clinical review required)	FR3	AC1: Model achieves clinically agreed sensitivity/specificity in validation. AC2: Clinician override always possible.	Clinical dataset, model validation	Model bias / false negatives	L→M	Data Science Lead	Phase 2
Emergency auto-escalation workflow (full)	Auto-call campus security + ambulance integration	FR3	AC1: Escalation flows tested end-to-end.	Emergency contacts, SOPs	False alarms	M	Clinical Lead	Phase 2
Document/Attachment Upload to EMR	Upload lab results, imaging, photos	FR5	AC1: Attachments stored & previewable; size & virus scan enforced.	Storage, virus scanner	Malware upload	M	Medical Records Lead	Phase 2
Advanced Analytics & Reporting	Provider KPIs, triage accuracy, population health trends	FR7	AC1: Weekly automated reports generated. AC2: Dashboards filter by faculty, date.	Data warehouse	Privacy leak via reports	L→M	Analytics Lead	Phase 2
Pharmacy Integration (inventory / fulfillment)	Confirm drug availability, track pickup	FR5	AC1: Pharmacy confirms availability in 80% of queries. AC2: Dispatch updates to student.	Pharmacy system	Stock mismatch	M	Pharmacy Lead	Phase 2

Item	Description	FR	AC	Dependencies	Key Risk	Est. Effort	Owner	Phase
Push notification preference controls	Let users throttle notifications	FR6	AC1: Preference changes respected across channels.	Notification engine	User turns off critical alerts	S	Product Manager	Phase 2
Enhanced EMR features (structured templates)	Structured fields for chronic disease, vitals	FR5	AC1: Clinician uses templates for ≥40% consults.	UX design	Template complexity	M	Medical Records Lead	Phase 2
Queue forecasting & wait-time prediction	Predict wait time & offer alternatives	FR2	AC1: Predicted wait time average error <20%	Historical data, analytics	Inaccurate predictions	M	Analytics Lead	Phase 2

COULD-HAVE (Nice-to-have: Phase 3 or later; deliver when resources permit)

Item	Description	FR	AC	Dependencies	Key Risk	Est. Effort	Owner	Phase
Wearables / Remote-monitoring integration	BP cuff, glucometer data to EMR	FR5, FR6	AC1: Device data flows into EMR, visualised.	Device vendors, security	Device compatibility	L→M	Clinical Lead / Vendor	Phase 3
Advanced tele-surgery / tele-mentoring	Specialist guides remote procedures (tele-mentoring)	—	AC1: Simulated pilots pass safety checks	High-grade video & legal	Safety / liability	L	CMUL Lead	Phase 3
Personalised wellness programs	Automated behaviour change	FR11.3	AC1: Engagement	Content team	Low uptake	M	Content Manager	Phase 3

Item	Description	FR	AC	Dependencies	Key Risk	Est. Effort	Owner	Phase
	programs (nudge tech)		>20% within pilot group					
Multilingual & Accessibility features	Pidgin, Yoruba, WCAG compliance enhancements	NFR4	AC1: WCAG AA pass on common pages	Translation resources	Partial coverage	M	UX Lead	Phase 3
Gamification for adherence	Badges, streaks for follow-up	—	AC1: 10% increased adherence in pilot	UX/design	Low adoption	S	Product	Phase 3

WON'T-HAVE (Out of scope for now: not part of plan)

- Full hospital-grade EMR replacement.

- Autonomous AI diagnosis without clinician oversight.

- Robotic telesurgery / telepresence surgery.

- Cross-border teleconsultations (jurisdiction & licensing).

- Full integration with national health information exchanges in Phase 1.

- 24/7 staffed specialist lines from CMUL on day-one.

Prioritised Backlog (Top 20 items ordered for delivery across MVP & Phase 2)

1. SSO Authentication (MVP)

2. RBAC & Consent Workflow (MVP)

3. Consult Now (Audio fallback) (MVP)

4. Appointment Booking (MVP)

5. Basic Triage Form & Emergency Redirect (MVP)

6. EMR-lite (notes & profile) (MVP)

7. E-Prescription & Pharmacy Notification (MVP)

8. Notification Engine (MVP)

9. Helpdesk Ticketing & KB (MVP)

10. Admin Console (schedules & user mgmt) (MVP)

11. Automated Note-taker (MVP)

12. Security Controls & Monitoring (MVP)

13. Basic Analytics Dashboard (MVP)

14. AI Symptom Checker (Phase 2)

15. Pharmacy integration (Phase 2)

16. Attachment uploads (Phase 2)

17. Advanced analytics & reporting (Phase 2)

18. Queue forecasting (Phase 2)

19. Wearables integration (Phase 3)

20. Multilingual accessibility (Phase 3)

Release Recommendations & Timeline

- **Preparation (0–4 weeks)**: Project charter, steering committee, legal & NDPR review, SSO feasibility spike.

- **Sprint 0 (2 weeks)**: Architecture, infra provisioning, vendor onboarding.

- **MVP Build (Weeks 3–12)**: Implement core MUST items in 6 x 2-week sprints (agile). Include iterative UAT with clinicians and students.

- **Pilot (Weeks 13–16)**: Soft launch with 2–3 faculties (~1,000 students), monitor KPIs daily.

- **Pilot Review (Weeks 17–18)**: Fix critical issues, optimize.

- **Campus Rollout (Week 19+)**: Gradual full rollout with weekly monitoring and training.

- **Phase 2 (Months 6–12)**: AI triage, enhanced analytics, attachments, pharmacy integration.

Acceptance & Governance Rules (how to promote features across MoSCoW)

1. **MVP Go/No-Go**: All MUST items must pass UAT and security/NDPR audits. If any MUST fails, the pilot is paused.

2. **Promotion of SHOULD → MUST**: Only with steering committee approval if pilot data shows severe operational pain that blocks use. Provide cost/benefit analysis.

3. **De-scoping Rule**: Any MUST item that remains behind schedule for >2 sprints must be escalated and a mitigation plan produced — either additional resources or scope reduction in other areas.

4. **Change Control**: New features enter backlog as COULD by default and are reprioritised by Product + Clinical leads.

Traceability: MoSCoW → FRs → KPIs (short mapping)

- Authentication & RBAC → FR1 → KPI: Login success rate, security incidents

- Consult Now & Booking → FR2/FR4 → KPI: wait time, booking completion, #teleconsults

- Triage / AI → FR3 → KPI: emergency escalation accuracy, triage completion rate

- EMR & Prescriptions → FR5 → KPI: EMR accuracy, prescription turnaround

- Notifications → FR6 → KPI: reminder open rate, follow-up compliance

- Analytics → FR7 → KPI: dashboard usage, trend accuracy

- Helpdesk → FR9/FR10 → KPI: ticket resolution time, KB success rate

- Admin Console → FR11 → KPI: schedule accuracy, admin change audit

Top Risks Linked to MoSCoW Priorities (quick reference)

- **Security & NDPR (R4/R13)** — affects MUST items → highest priority mitigation: privacy-by-design, pen testing, legal sign-off.

- **Network/bandwidth (R2)** — affects Consult Now & video → implement audio fallback & telco partnerships early.

- **SSO integration (R3)** — blocks authentication & RBAC → do a technical spike in Sprint 0.

- **Adoption & awareness (R8/R19)** — affects all; parallel comms & onboarding run during MVP build.

- **Vendor underperformance (R12)** — procurement must require POC + penalties.