NABDH: MVP Scope Document

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1. MVP Summary (What we are building in the next 6 months)

NABDH MVP = the GCC's first Arabic native Clinical AI Layer for doctors, built on:

- Doctor Portal V1
- Arabic Clinical AI Engine (audio → transcript → SOAP → summary)
- Safety & Clinical Pathways Engine
- Insurance Assistant V1 (pre-auth + claim narratives)
- Compliance Layer (logging, consent, UAE data residency)
- Pilot #1 (Dec–Jan) + Pilot #2 (Feb–Mar)
- Acquisition readiness by April–May 2026

This MVP is NOT:

- A patient app
- A full EMR
- A diagnostic engine

This MVP is laser focused on doctor efficiency, Arabic AI, and insurance automation, which gives us maximum traction with minimum build cost.

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2. MVP Goals (What must be delivered 100%)

By March 2026, NABDH MVP must deliver:

2.1 Core AI Functionality

- Arabic speech to text (ASR)
- Transcript → structured SOAP note
- Structured note → doctor summary
- Red flag safety checks
- Clinical pathways for top 5–6 complaints

2.2 Doctor Portal V1

- Login
- Dashboard
- Audio recorder
- Visit notes (AI generated)
- Edit notes
- Safety alerts
- Simple past history view

2.3 Insurance Assistant V1

- Pre-auth justification drafts
- Claim narrative drafts
- Missing-item checklist
- Rejection risk (rule-based)

2.4 Compliance & Safety

- Consent screen
- Privacy disclosure
- Audit logs
- UAE data residency
- Safety stop conditions

2.5 Pilots

- Pilot #1: Base44 CAIC (Dec–Jan)
- Pilot #2: NABDH V1 (Feb–Mar)

2.6 Acquisition Preparation (April–May)

- Final demo
- Pilot report (1 + 2)

- Safety + validation report
- Buyer pipeline
- LOIs

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3. Lean Architecture (Azure UAE + Local Model)

3.1 Infrastructure

Cloud: Azure UAE Region

Why:

- Complies with UAE healthcare data residency
- Used by Malaffi/M42
- Low latency
- Best for future integrations

Compute:

- 1 small compute instance for backend
- 1 GPU-backed instance for local inference during development only
- Limit GPU usage to:
  → model testing
  → summary generation
  → accuracy evaluation

Storage:

- Azure Blob
- PostgreSQL

3.2 AI Architecture

LLM Model Strategy:

- Use a local Arabic clinical model (not external OpenAI/GPT)
- Smaller distilled model for:
  → cost control
  → privacy
  → UAE residency
- RAG (Retrieval-Augmented Generation) optional for phase 2

ASR Engine:

- Whisper Arabic (localized)
  or
- Azure Arabic Speech Service

Pipeline:

1. Audio → ASR
2. ASR → transcript
3. Transcript → structured SOAP
4. SOAP → doctor summary
5. Safety layer checks
6. Save log

3.3 Backend Architecture

- FastAPI or Django
- Microservice architecture (minimal)
- Logging service
- Insurance service
- Notes service
- Authentication

3.4 Frontend Architecture

- React + Next.js
- Doctor portal, responsive
- Simple + fast (not heavy UI)

3.5 DevOps

- GitHub (repo + branches)
- GitHub Actions (CI/CD)
- Jira for sprint management

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4. MVP Features (Fully Defined Scope —No Scope Creep)

4.1 Doctor Portal

Feature	Required for MVP	Notes
Login	✔	Simple email/password
Dashboard	✔	Shows today’s visits
Audio Recording	✔	Core feature
AI SOAP Note	✔	From transcript
AI Summary	✔	Doctor-facing
Edit Note	✔	Must-have
Past History	✔ (basic)	V1 only

Red Flag Alerts	✔	From safety rules
Specialty Suggestion	optional	Only if fast
Beautiful UI	✖	Not needed

4.2 AI Layer

Feature	Required?	Notes
Arabic ASR	✔	Whisper or Azure
SOAP Generation	✔	Structured format
Summary Generation	✔	Doctor readable
Safety Engine	✔	Hard stop rules
Clinical Pathways	✔	Top 6 complaints
Model Fine-tuning	optional	Only if needed
RAG	optional	Later

4.3 Insurance Assistant

Feature	Required?	Notes
Pre-auth Draft	✔	Key selling point
Claim Narrative	✔	From SOAP
Missing Item Checklist	✔	Rule-based
Rejection Risk	optional	V1.1

4.4 Compliance Layer

Feature	Required?	Notes
Consent	✔	Simple modal
Privacy Policy	✔	Doctor portal
Audit Logs	✔	API-level logs
UAE Residency	✔	Azure UAE
Incident Response	✔	Minimal protocol

DOH Certification	✖	Not required

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5. Out of Scope (to protect the budget & timeline)

These features must NOT be built before acquisition:

🚫 Patient App

🚫 Full EMR system

🚫 Advanced diagnostic features

🚫 Hospital integration (Malaffi)

🚫 Telemedicine

🚫 Payments

🚫 Chatbot for patients

🚫 AI-driven prescriptions

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6. Roles & Responsibilities (MVP Phase Only)

Founder

- Vision
- Roadmap
- Pilots
- Team alignment
- Compliance review
- Quality control

- Investor + acquisition preparation

CTO

- Architecture
- Backend
- DevOps
- Security
- Model integration
- Delivery management

AI/ML Engineer

- ASR setup
- LLM integration
- Summary + SOAP logic
- Pathway logic integration
- Evaluation metrics

Clinical Lead (Dr. Ahmed)

- Pathways
- Safety rules
- Clinical validation
- Evaluation of outputs

Regulatory Advisor (Dr. Salam)

- Consent
- Privacy
- Data flow
- Logs
- Incident response

UI/UX

- Doctor portal screens
- Consistent design system

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7. Success Metrics (MVP Only)

Clinical Metrics

- ≥ 70% doctor adoption
- ≥ 40% time saved
- ≥ 80% accuracy on SOAP

Safety Metrics

- 0 major safety issues
- 100% consent usage

Business Metrics

- 2 pilot clinics
- 5+ buyer discussions
- Web Summit interest pipeline
- Clear acquisition story by May

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8. Budget (Max 35,000 AED)

Azure UAE: 6,000–8,000 AED

Dev tools: 1,800–2,400 AED

Legal/IP: 6,000–8,000 AED

Pilot logistics: 3,000–4,000 AED

Design/marketing: 2,000–3,000 AED

Contingency: 5,000–6,000 AED

Total: 27,000–33,000 AED

(Within maximum limit)

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9. Timeline (Directly tied to the Roadmap)

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10. Definition of DONE (MVP Ready)

The MVP is complete only when ALL of the following are true:

✔ Doctors can record audio

✔ Transcript appears

✔ SOAP note generates

✔ Summary generates

✔ Red-flag warnings trigger

✔ Doctor can edit notes

✔ Insurance draft generates

✔ All data stored in Azure UAE

✔ Safety logs work

✔ Consent screen works

✔ Pilot #2 runs smoothly

✔ Pilot report published