# MVP Development Proposal

A comprehensive plan for developing an AI-powered FF&E procurement platform over 6 months

Introduction

This document outlines the complete proposal, cost structure, and terms for the development of the Minimum Viable Product (MVP) of Casaire – an AI-powered FF&E procurement platform.

The engagement includes product planning, AI development, full-stack engineering, and cloud-ready deployment over an estimated duration of 5–6 months.

Scope of Work

Client Panel

Dashboard, AutoCAD/PDF Upload, BOQ Viewer, Tender Management

Supplier Panel

Tender Listings, Quote Submission, Status Updates

Admin Panel

User and Tender Management, Logs, Catalogs

AI/ML Modules

CAD & PDF Parsing, BOQ Generation, NLP Categorization

DevOps & Infrastructure

CI/CD Pipeline, Secure Deployment, Version Control

Team & Resource Plan

Team Strength & Collaborative Support

80
Total IT Team

Anvis Digital's full engineering capacity

18-22
Casaire Allocation

Dedicated resources on full-time and shared basis

Our flexible resourcing model provides **dynamic scaling** and **reduces delivery risk** through multiple layers of support:

- Internal peer reviews and code quality checks
- Backup staffing for critical path activities
- Architectural advisory from senior engineers

AI/ML Support

R&D partner network for specialized algorithms

DevOps Pool

Shared infrastructure expertise

Product Manager

Quantity

1

Duration

6 months

Purpose

Own the product vision, define scope, and align development with business goals.

Key Responsibilities

- Define MVP roadmap and feature priorities
- Act as the bridge between client, tech, and design
- Make product decisions based on business/user goals

Why Needed: Ensures that the product solves real problems and maintains strategic focus.

Project Manager

Quantity

1

Duration

6 months

Purpose

Oversee the delivery process and ensure timely completion.

Key Responsibilities

- Sprint planning, resource scheduling, and progress tracking
- Risk management and conflict resolution
- Daily team syncs and status updates for stakeholders

Why Needed: Maintains discipline across teams and keeps the project on time and within scope.

UI/UX Designer

### Quantity

1

Duration

6 months
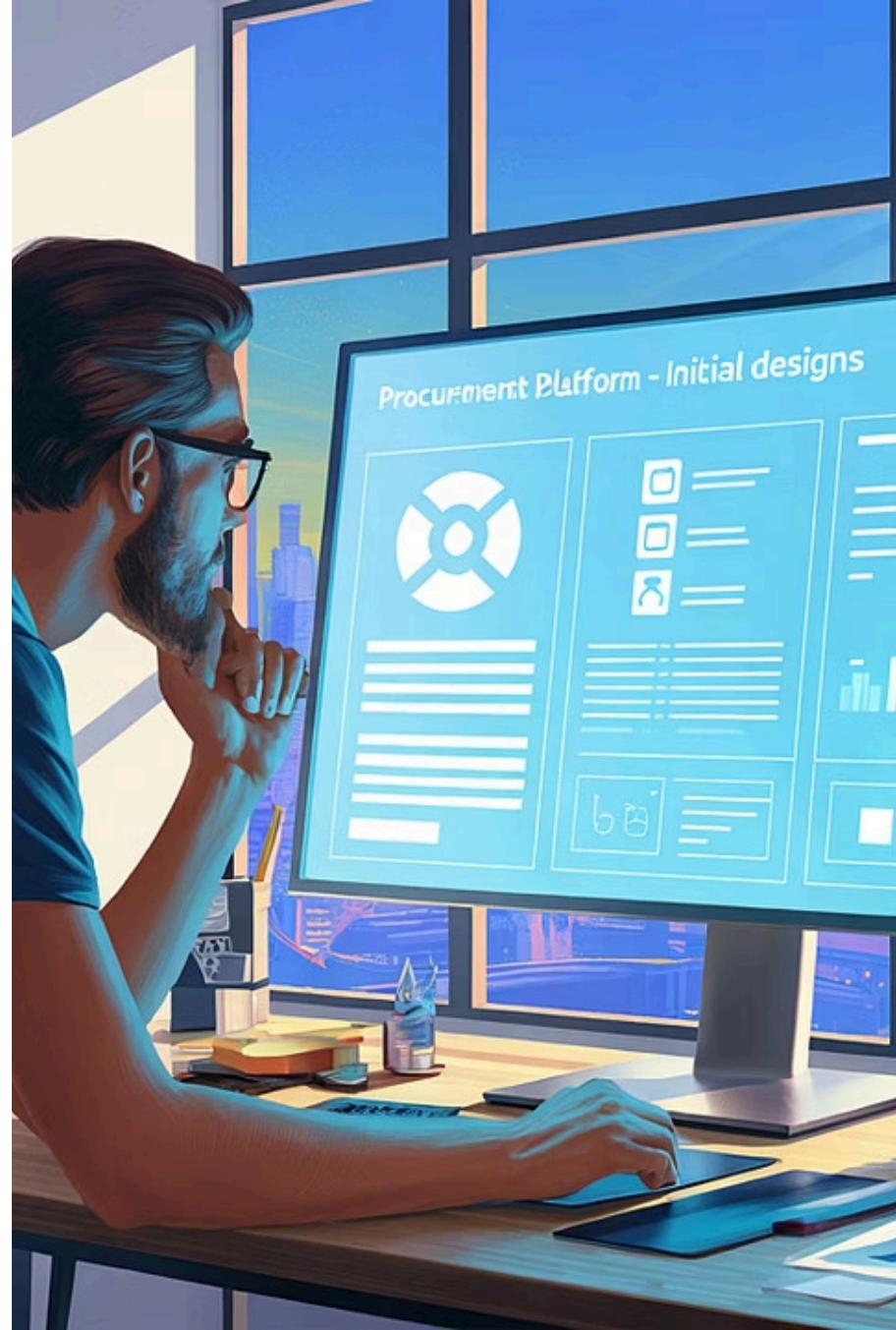
Purpose

Design the user journey and app interface across roles.

Key Responsibilities

- Create wireframes, flows, and layout for all modules

- Ensure intuitive design and usability across devices

- Work with developers to ensure design-to-code consistency

Why Needed: A good design reduces user confusion, boosts adoption, and improves efficiency.

Frontend Developer

Quantity

2

Duration

6 months
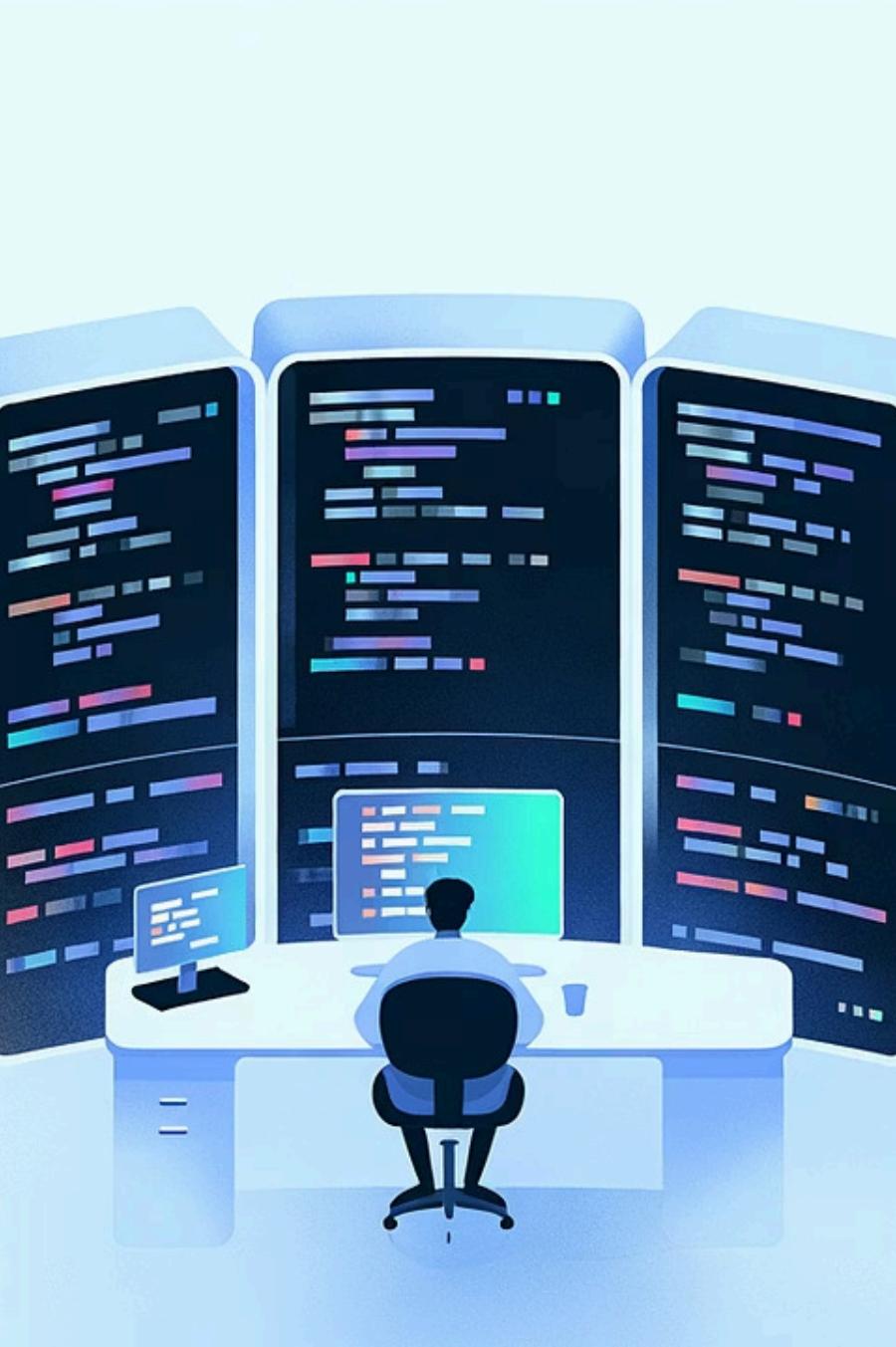
Purpose

Build user-facing features and interfaces.

Key Responsibilities

- Develop dashboards, upload modules, tables, and modals
- Ensure responsive design using React.js and Tailwind
- Integrate APIs for data display and interaction

Why Needed: Transforms UI designs into functional, usable web interfaces.

Backend Developer

Quantity

2

Duration

6 months

Purpose

Build the server-side logic and data handling workflows.

Key Responsibilities

- Develop APIs for BOQ, tenders, users, and submissions
- Implement business rules and security protocols
- Manage database structure and integrations

Why Needed: Powers the platform's core logic and connects frontend with backend processes.

DevOps Engineer

Quantity

1

Duration

6 months

Purpose

Set up infrastructure, deployment pipelines, and monitoring.

Key Responsibilities

- Set up CI/CD using GitHub Actions or similar tools
- Configure AWS/GCP servers and cloud storage
- Automate deployments and backups

Why Needed: Ensures a stable, scalable, and secure production environment.

Deployment Architect

Quantity

1

Duration

6 months
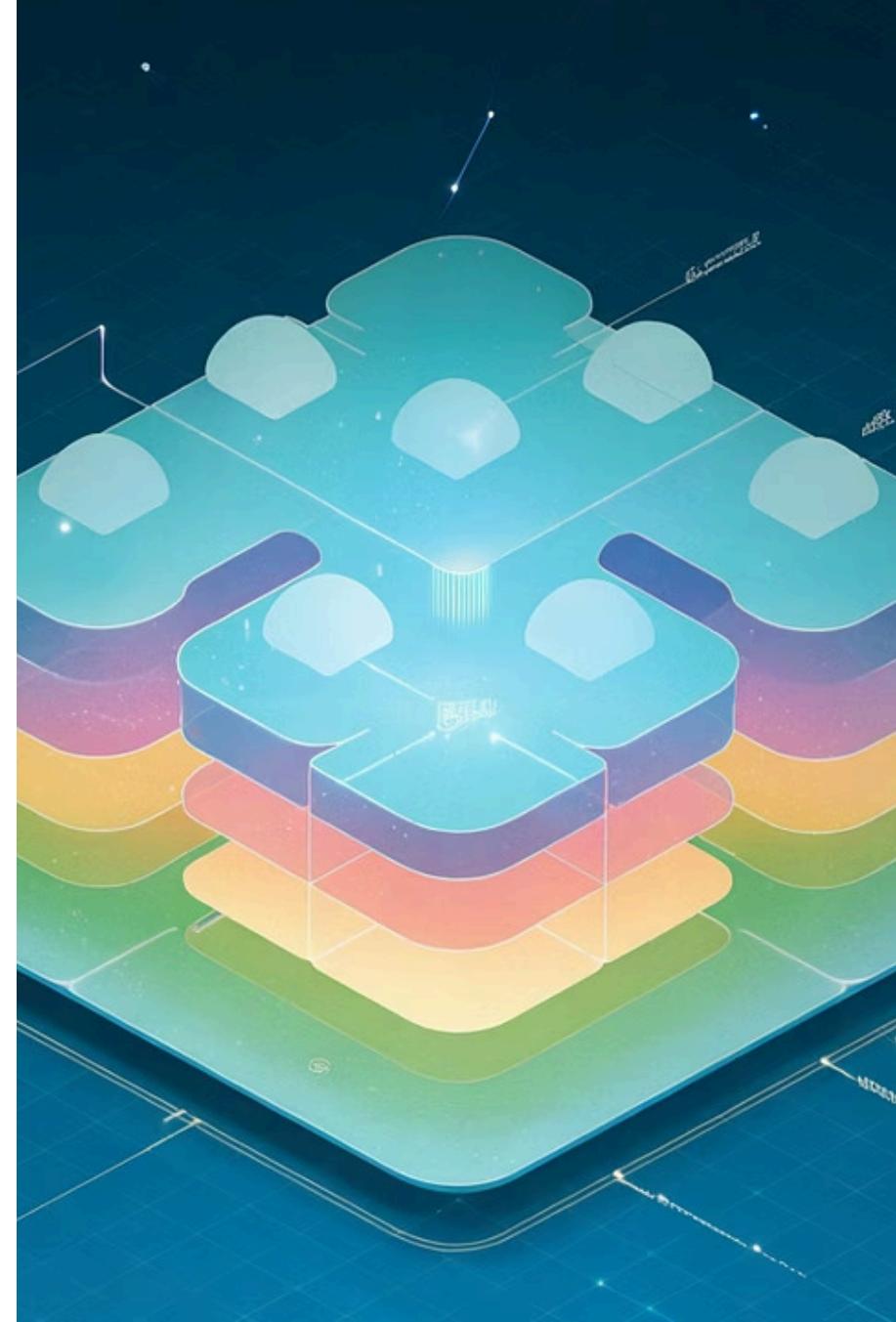
Purpose

Design and document cloud infrastructure and its scalability.

Key Responsibilities

- Plan multi-environment deployment strategies
- Define security groups, load balancers, auto-scaling
- Optimize cost and availability

Why Needed: Ensures the system scales efficiently without compromising security.

QA Engineer

Quantity

1

Duration

6 months

Purpose

Ensure software quality through automated and functional testing.

Key Responsibilities

- Write test cases for all modules
- Perform regression, integration, and smoke testing
- Collaborate on bug tracking and fixes

Why Needed: Reduces bugs, improves stability, and ensures a smoother user experience.

Tester

Quantity

1

Duration

6 months
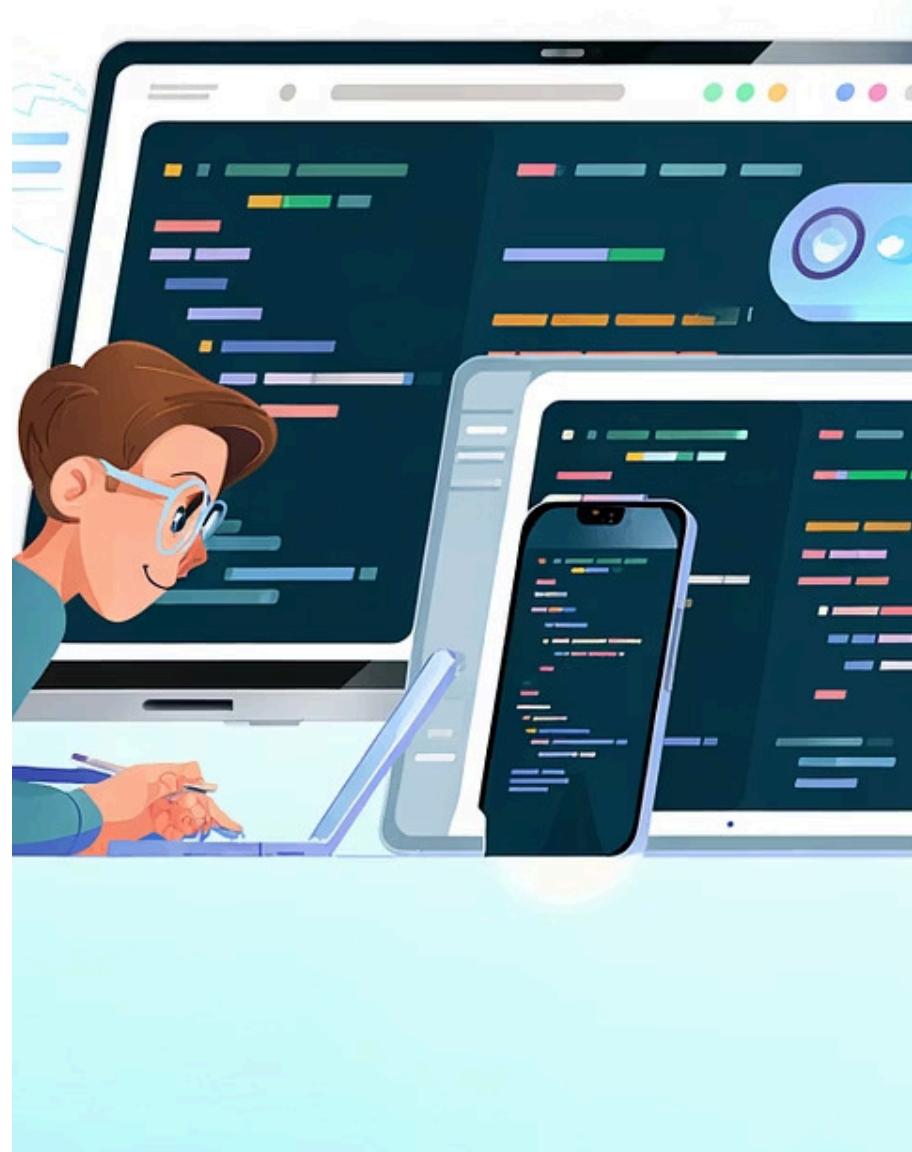
Purpose

Validate user workflows and scenarios through manual testing.

Key Responsibilities

- Conduct exploratory testing on user flows

- Report UI and functional inconsistencies

- Assist in UAT sessions

Why Needed: Captures edge cases and real-world usability issues.

CAD Consultant

Quantity

1

Duration

6 months

Purpose

Integrate AutoCAD processing and visualization modules.

Key Responsibilities

- Integrate Autodesk Forge or Xeokit viewer
- Help map CAD data to BOQ logic
- Guide the team on CAD-based standards

Why Needed: Connects technical file handling with construction/design workflows.

AI Engineer

⊞ Quantity

1

◷ Duration

6 months

⊘ Purpose

Design the smart logic layer that uses rules to guide AI decisions.

Key Responsibilities

- Create logic-based decision trees for BOQ mapping
- Collaborate with data and ML engineers
- Ensure explainability of AI decisions

Why Needed: Acts as the "rules brain" to support or enhance ML predictions.

ML Engineer

Quantity

1

Duration

6 months

Purpose

Build the smart BOQ extraction and PDF parsing modules.

Key Responsibilities

- Use OpenCV, Tesseract, and NLP tools to process CAD/PDF files
- Auto-categorize and format BOQ data from unstructured content
- Set up modular AI pipelines for future scalability

Why Needed: Brings the AI advantage that automates what would otherwise be manual and error-prone.

Data Scientist

Quantity

1

Duration

6 months

Purpose

Analyze AI-generated data and ensure output is useful and valid.

Key Responsibilities

- Validate classification, pricing, and product-matching accuracy
- Clean and structure data for visual rendering and reporting
- Help tune AI logic based on observed patterns

Why Needed: Supports the intelligence layer by turning AI results into usable insights.

Solution Architect

Quantity

1

Duration

6 months

Purpose

Design the technical architecture of the system.

Key Responsibilities

- Define module interactions, API layers, data flow
- Plan for scalability, performance, and flexibility
- Create system documentation and design guidelines

Why Needed: Aligns all components into a future-proof, maintainable architecture.

Domain Expert

Quantity

1

Duration

6 months

Purpose

Provide real-world insights into procurement and design processes.

Key Responsibilities
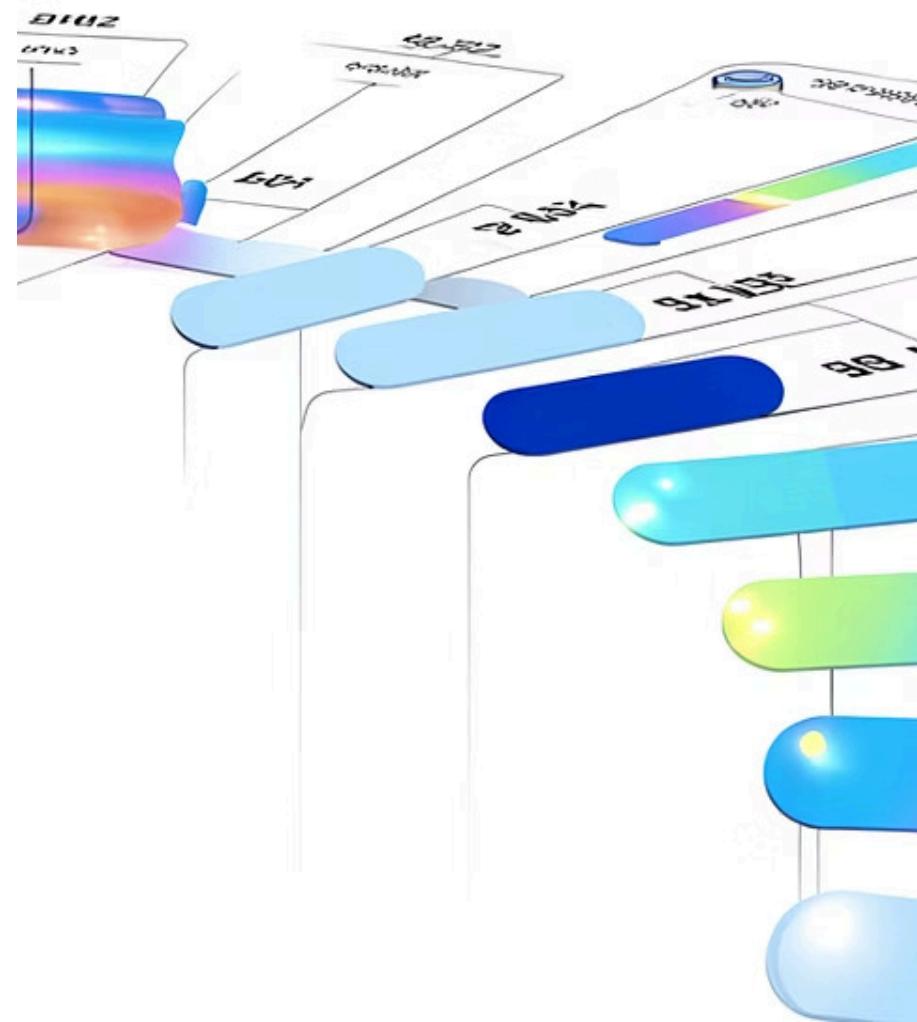
- Guide the BOQ and tender logic based on industry practices
- Help in vendor-side workflow definition
- Review UI/UX for functional validity

Why Needed: Bridges the gap between technology and real-world usage.

Project Timeline Overview

Here is a detailed timeline for the Casaire MVP project, broken down by month, sprint, and workstreams (Design, Frontend, Backend, AI/ML, QA, DevOps). Each task is aligned with deliverables and outcomes:

🗓️ Casaire MVP – Detailed Project Timeline (9 Months)
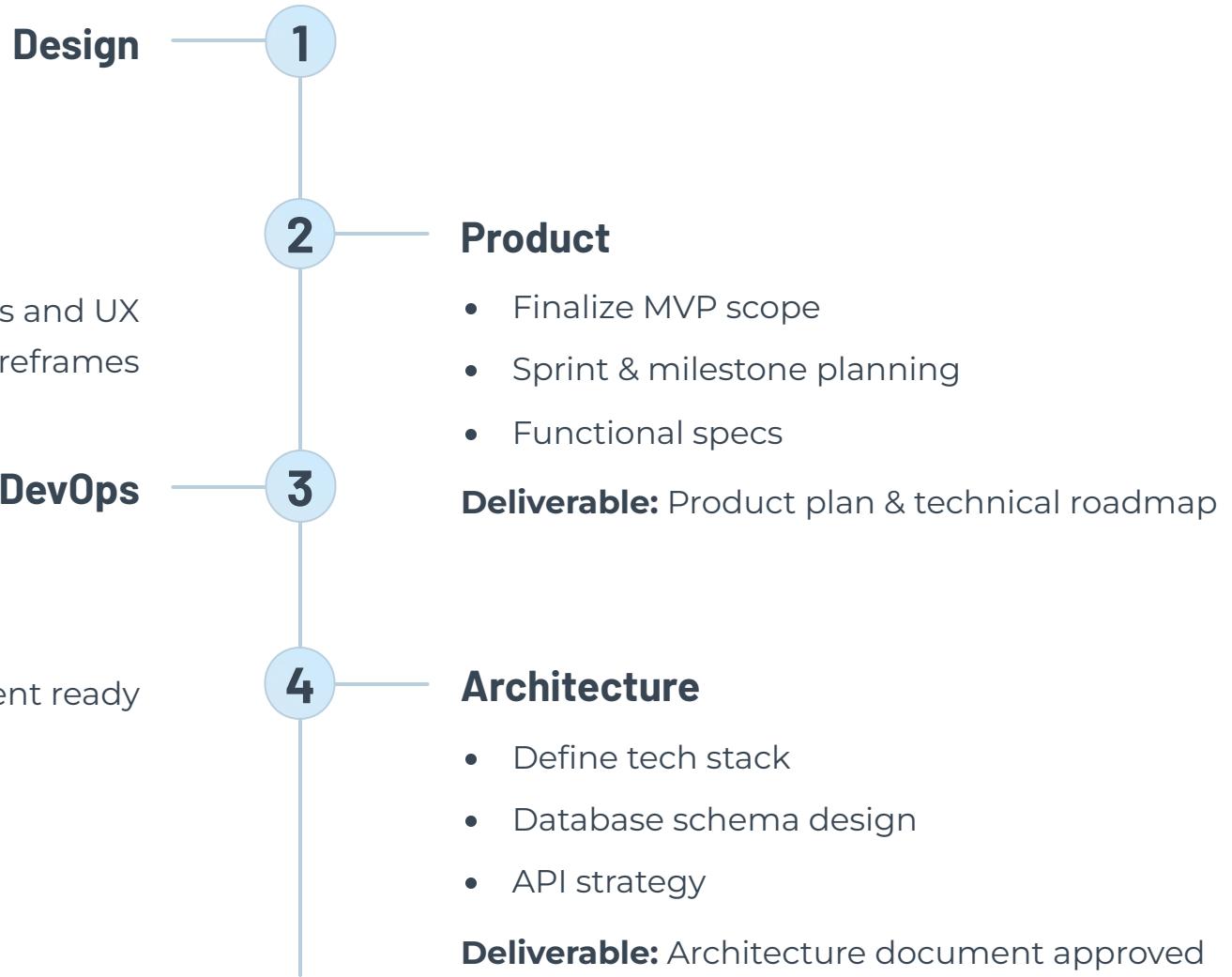
Month 1 – Discovery & Setup

Design ①
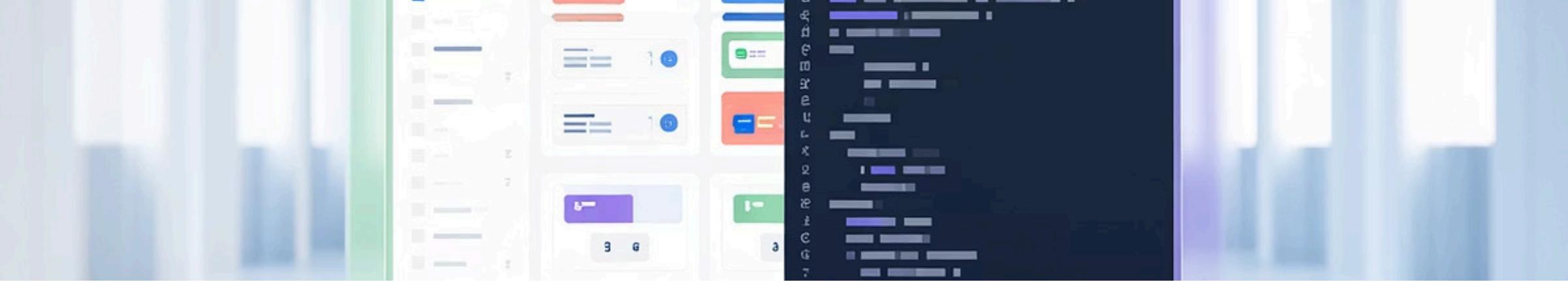
- Stakeholder interviews
- UX flows & sitemap
- Low-fidelity wireframes (Figma)

Deliverable: Approved user journeys and UX wireframes

② **Product**

- Finalize MVP scope
- Sprint & milestone planning
- Functional specs

Deliverable: Product plan & technical roadmap

DevOps ③

- Cloud infra setup (AWS/GCP)
- CI/CD pipeline configuration

Deliverable: Infra live with repo & deployment ready

④ **Architecture**

- Define tech stack
- Database schema design
- API strategy

Deliverable: Architecture document approved
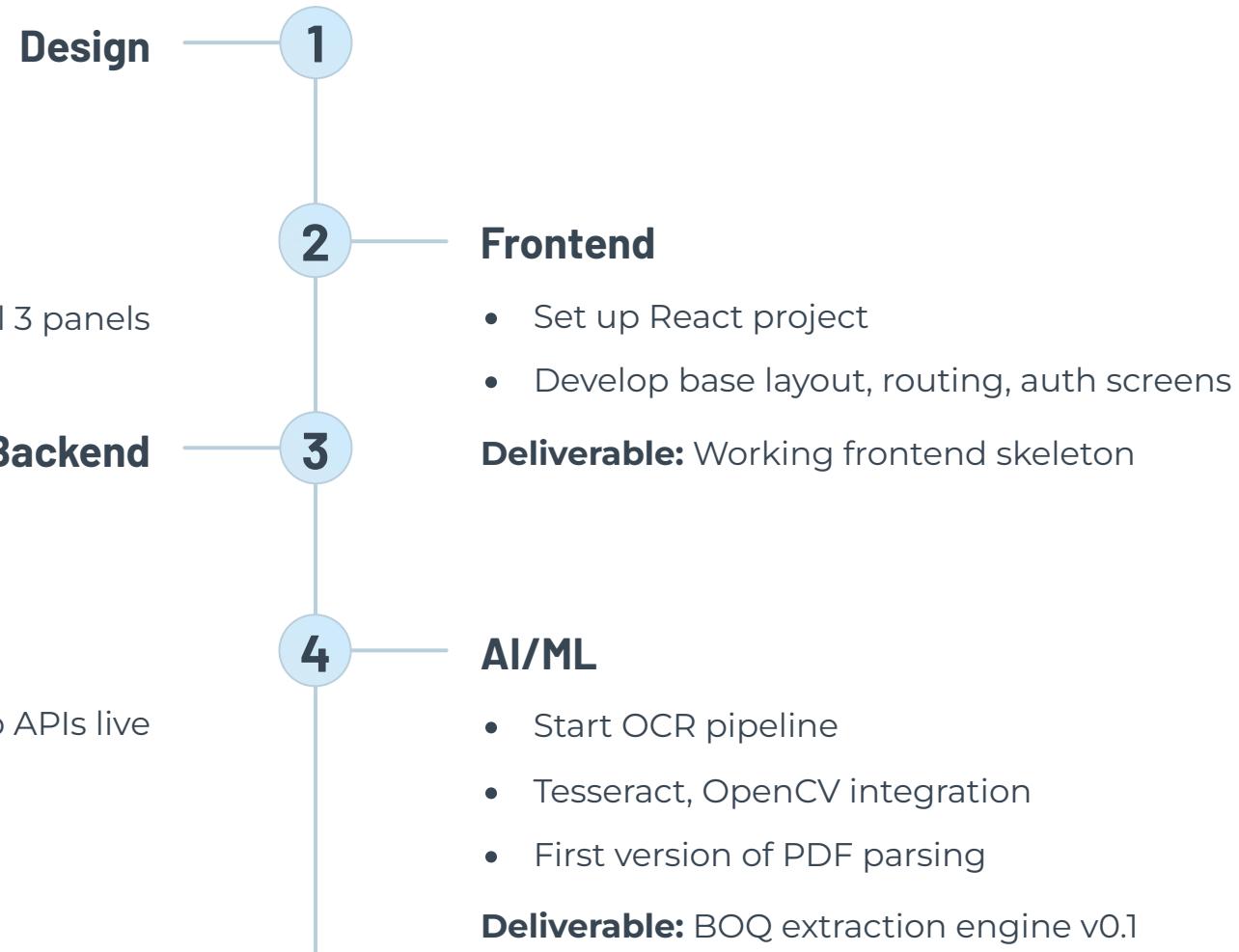
Month 2 – Design & Core Dev

Design — 1

- High-fidelity Figma UI
- Component library setup
- Design QA

  Deliverable: Finalized UI mockups for all 3 panels

Frontend — 2

- Set up React project
- Develop base layout, routing, auth screens

Deliverable: Working frontend skeleton

Backend — 3

- Setup Node/Express APIs
- MongoDB integration
- Auth & user APIs

  Deliverable: User login/signup APIs live

AI/ML — 4

- Start OCR pipeline
- Tesseract, OpenCV integration
- First version of PDF parsing

Deliverable: BOQ extraction engine v0.1

Month 3 – BOQ Engine + Supplier Flow

AI/ML — 1

- Train AI on sample BOQs
- Generate item rows from drawings/PDFs

Deliverable: BOQ-to-table working module

2 — **Frontend**

- File upload
- BOQ table
- Product detail screen

Deliverable: Upload-to-BOQ flow functional

Backend — 3

- Tender API structure
- Supplier creation, role permissions

Deliverable: Backend endpoints in place
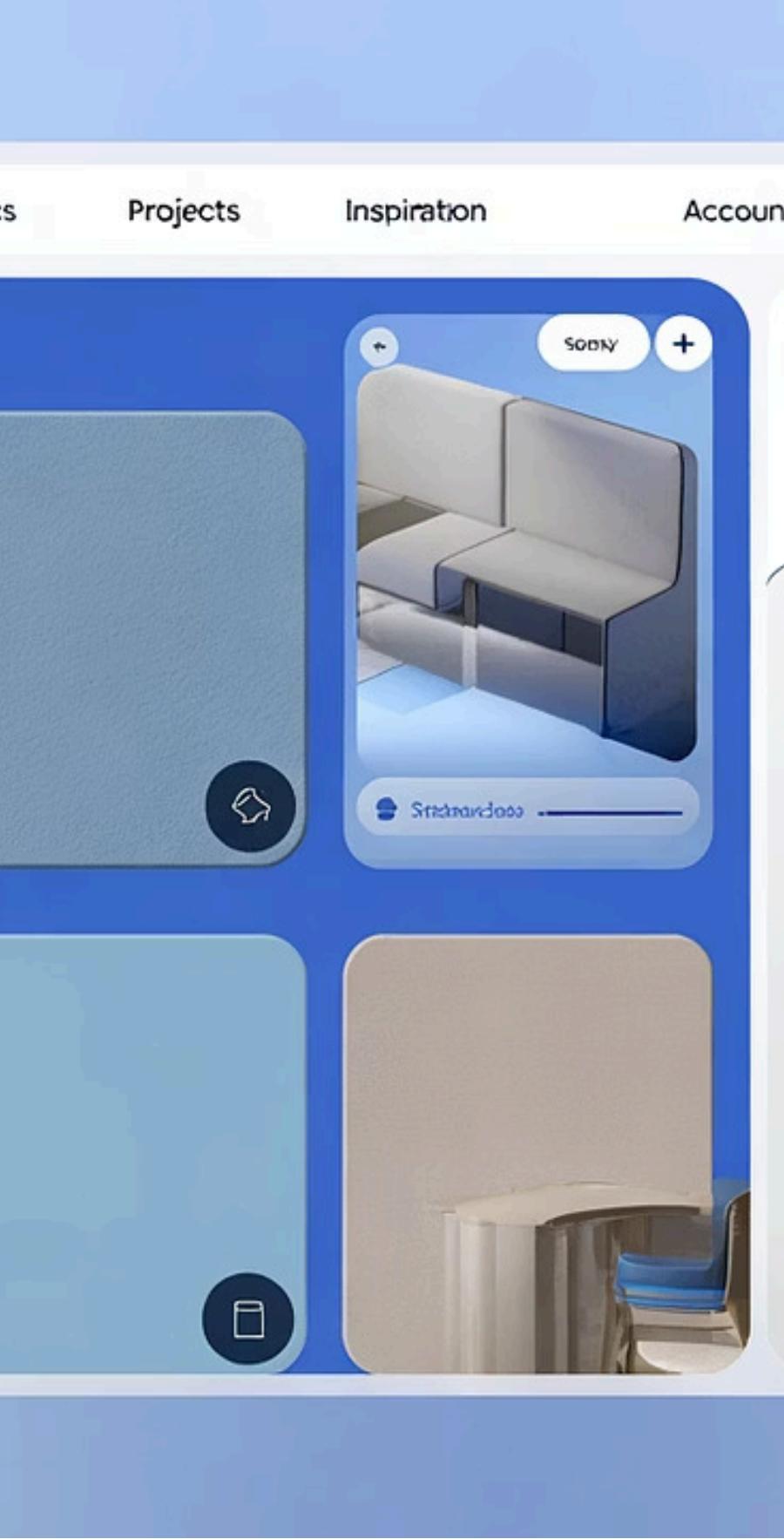
4 — **Integration**

- Connect Forge API
- Display CAD previews (stub)

Deliverable: Viewer placeholder added

✅ **Go/No-Go:** Review AI BOQ output quality + approve sprint

Month 4 – Admin + Mood Board

1 **Admin Panel**

- Role management
- Admin CRUD for tenders/suppliers

Deliverable: Admin dashboard functional

2 **Mood Board**

- Design mood board UI
- Map items to styles & colors
- Previews with layout thumbnails

Deliverable: AI mood board suggestions (v0.1)

3 **Frontend**

- Modals, form validation, alerts
- Table enhancements

Deliverable: Interactive UI behaviors
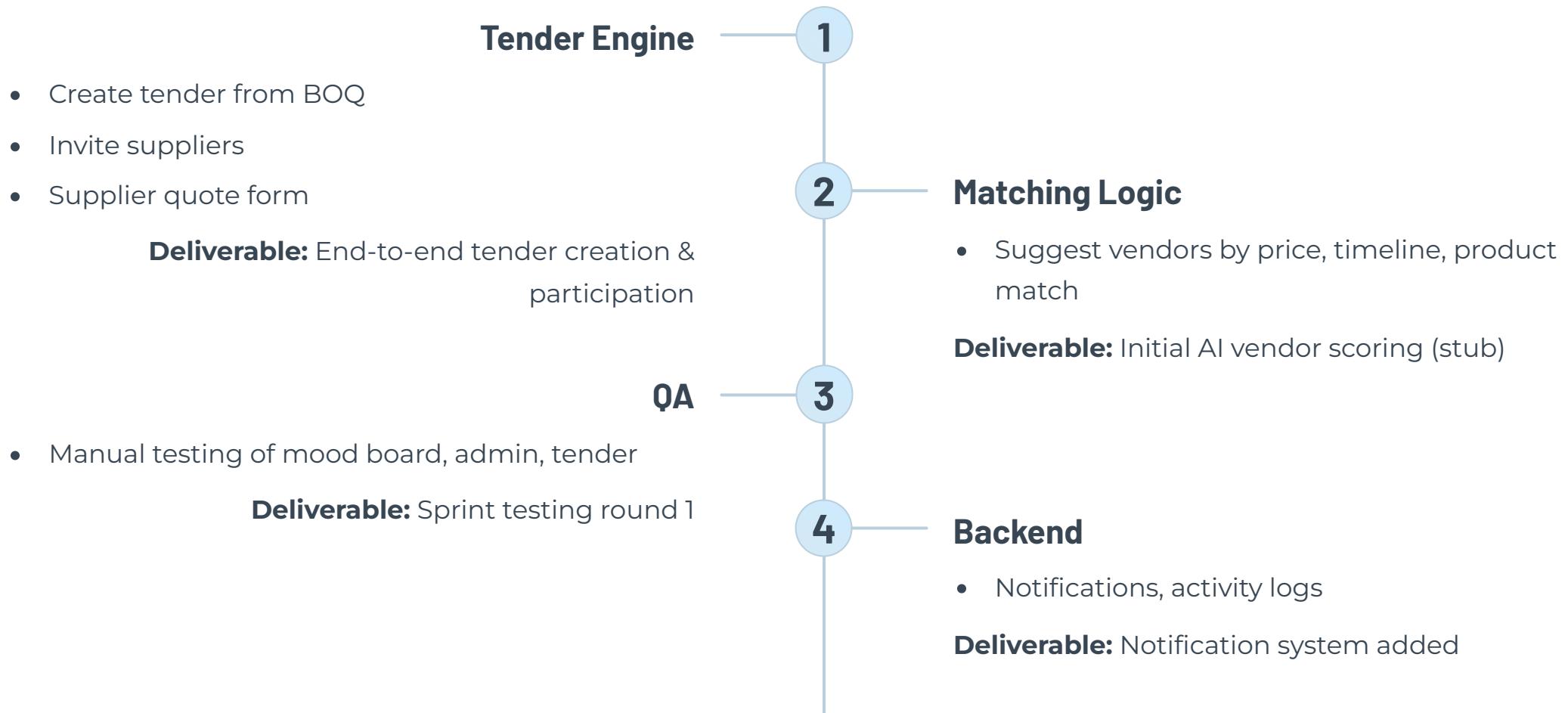
4 **Backend**

- Save mood board templates
- Audit logs, admin tracking

Deliverable: Full admin feature parity

Month 5 – Tender Flow Completion

Tender Engine —————— ①

- Create tender from BOQ
- Invite suppliers
- Supplier quote form

      Deliverable: End-to-end tender creation & participation

② —————— **Matching Logic**

- Suggest vendors by price, timeline, product match

Deliverable: Initial AI vendor scoring (stub)

QA —————— ③

- Manual testing of mood board, admin, tender

      Deliverable: Sprint testing round 1

④ —————— **Backend**

- Notifications, activity logs

Deliverable: Notification system added

Month 6 – QA & UAT Prep

1 QA

- Functional & regression testing
- Test case doc

Deliverable: Final QA round complete

2 Frontend

- UI cleanup, responsiveness
- Mobile testing

Deliverable: Responsive UI v1

3 DevOps
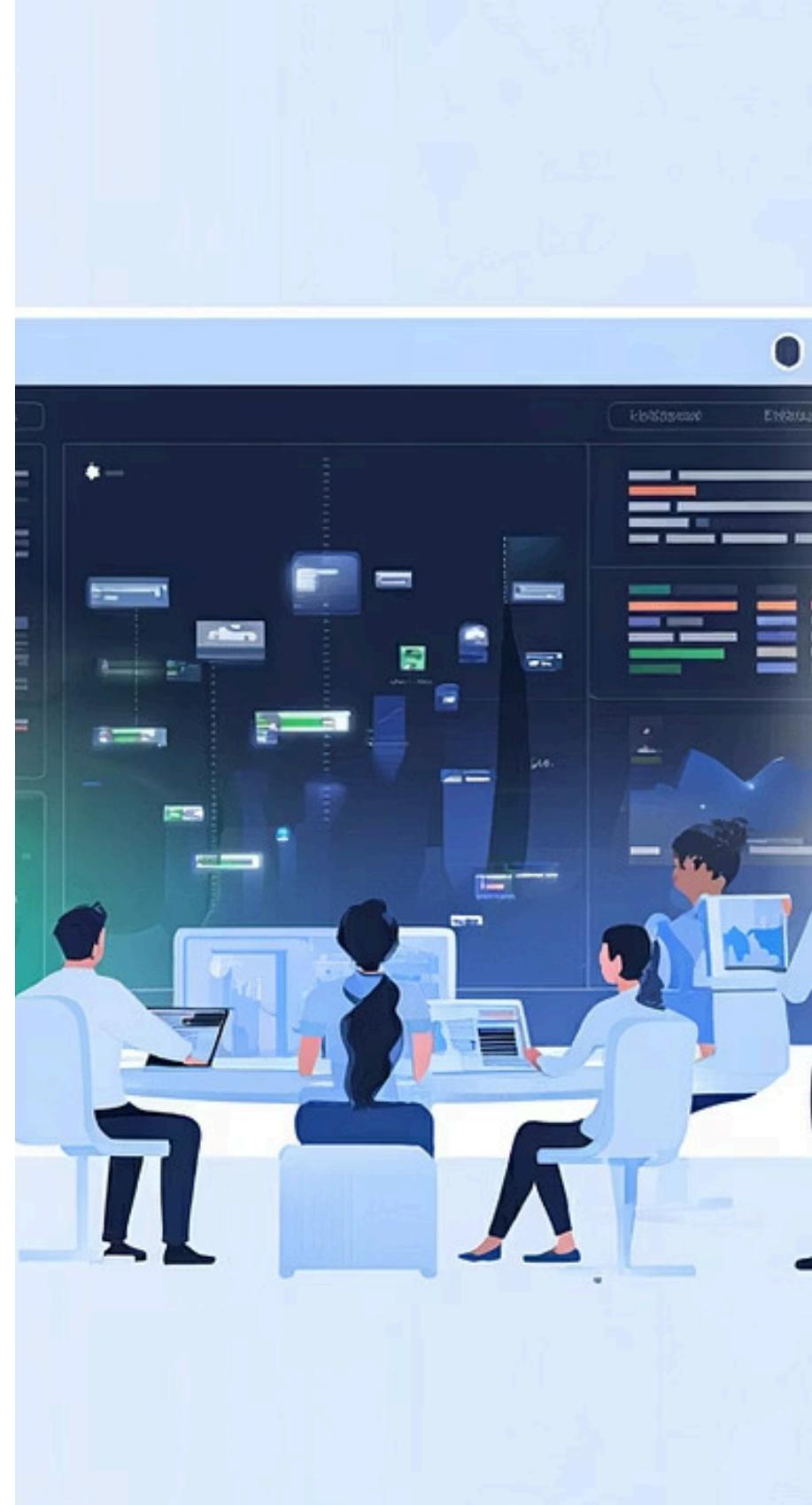
- Beta staging setup
- Crash/error logging

Deliverable: Beta server deployed

4 AI/ML

- Output quality check
- Error mapping

Deliverable: Parser and categorizer v1.1
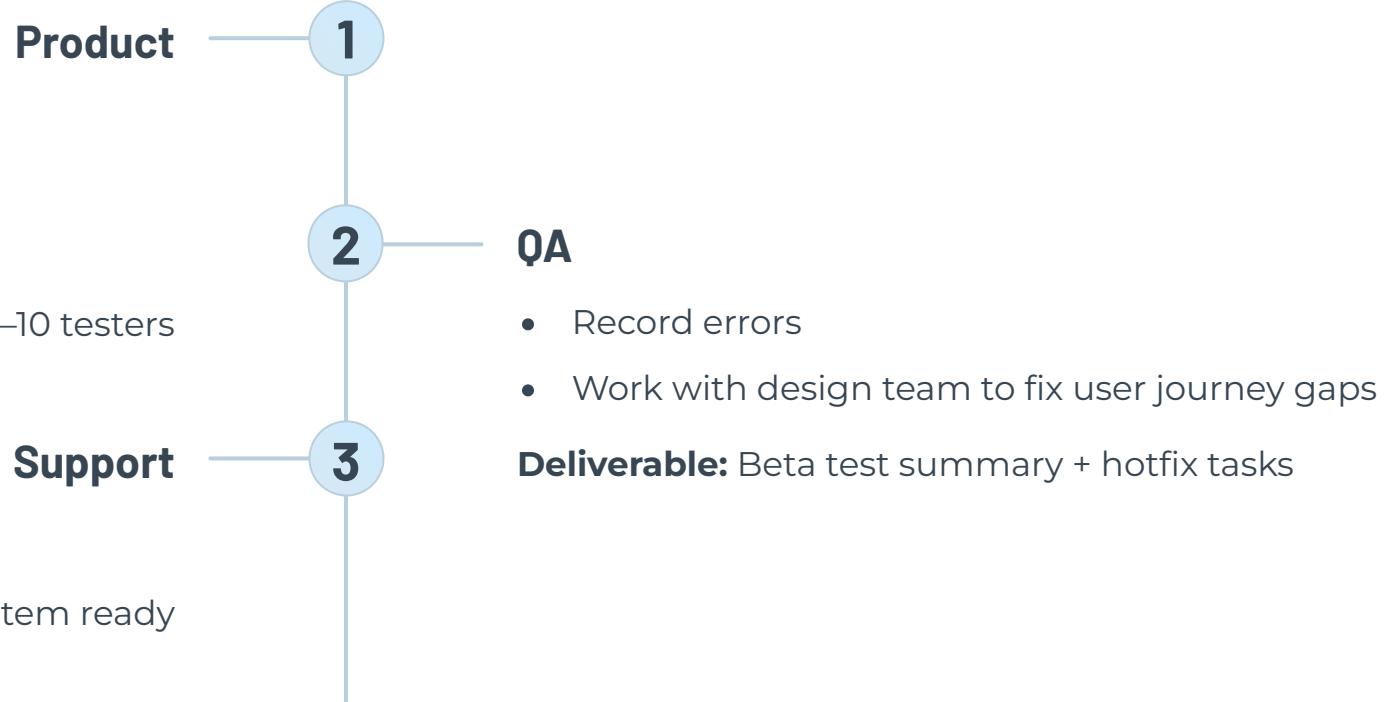
Month 7 – Beta Launch

Product —— ①
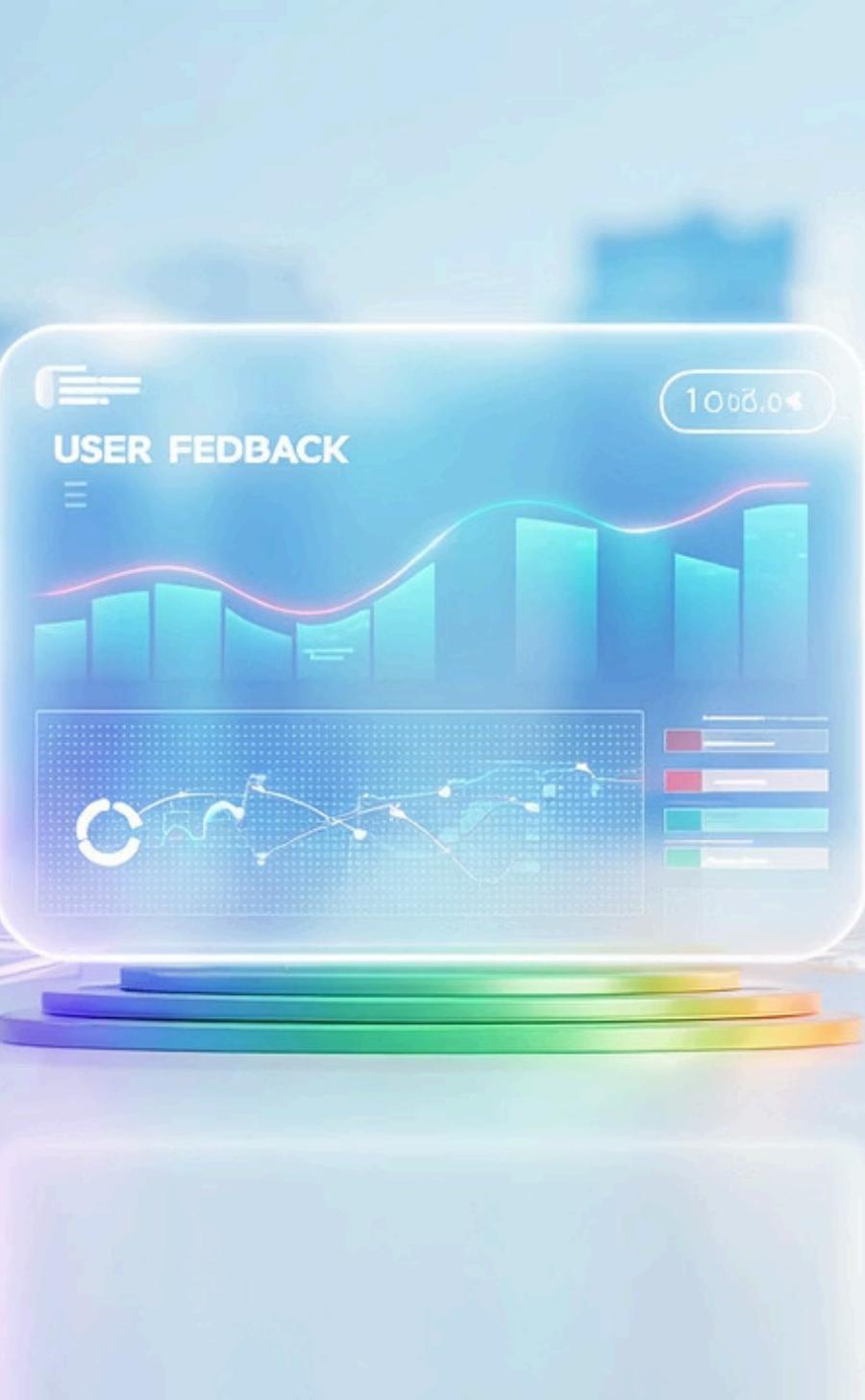
- Deploy to vendors
- Enable helpdesk/chat
- Feedback forms

Deliverable: Beta feedback from 5–10 testers

② —— **QA**

- Record errors
- Work with design team to fix user journey gaps

Deliverable: Beta test summary + hotfix tasks

Support —— ③

- Setup FAQs, onboarding guide

Deliverable: Basic support system ready

Month 8 – Feedback Loop & Final Fixes

1   **QA + Design**

- Address user-reported bugs
- UX fine-tuning
- Polish tables, graphs, preview cards

Deliverable: MVP-ready UX

2   **Product**

- Gather insights from usage
- Prioritize Phase 2 roadmap

Deliverable: Feedback tracking board
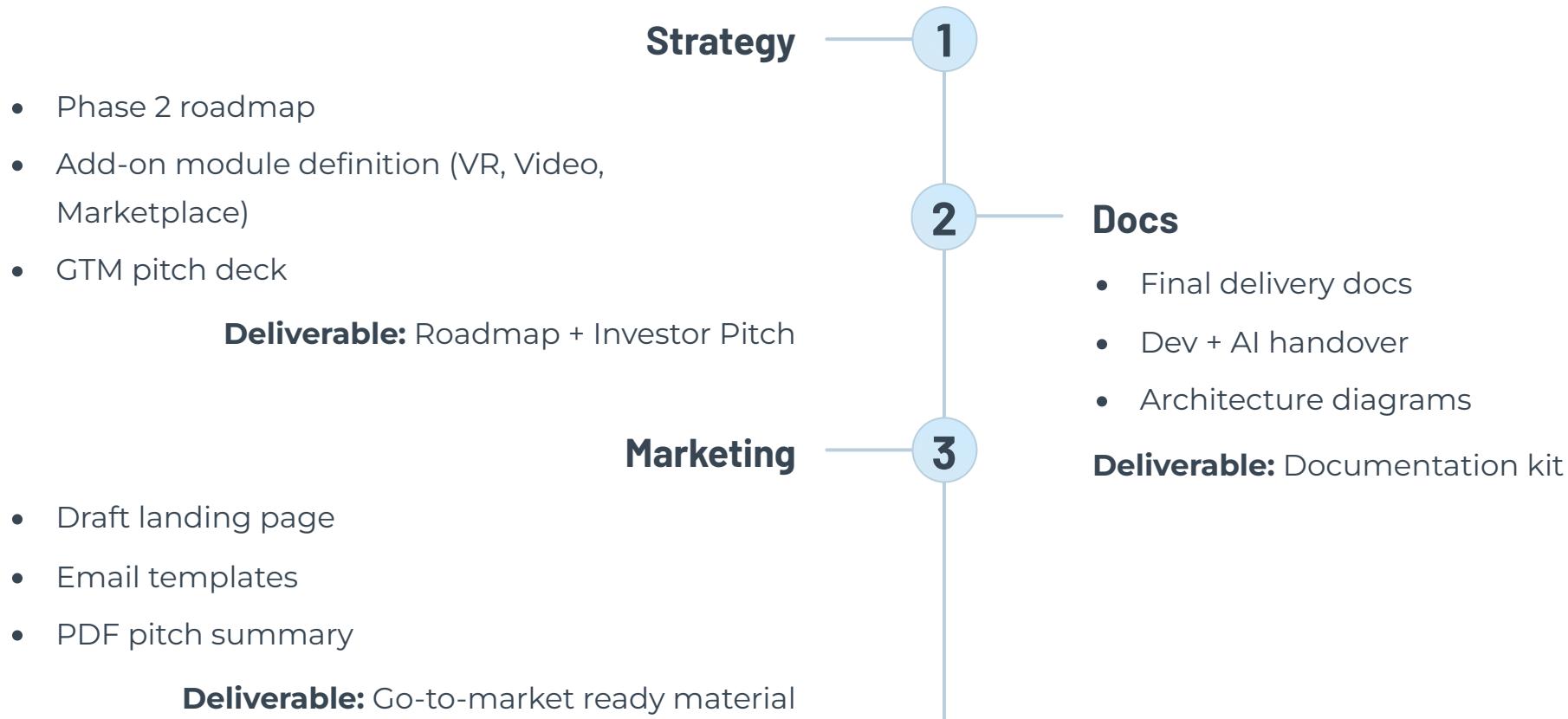
3   **AI/ML**

- Refine results using real test files

Deliverable: Improved accuracy

Month 9 – Phase 2 Planning & GTM

Strategy — 1

- Phase 2 roadmap
- Add-on module definition (VR, Video, Marketplace)
- GTM pitch deck

Deliverable: Roadmap + Investor Pitch

2 — **Docs**

- Final delivery docs
- Dev + AI handover
- Architecture diagrams

Deliverable: Documentation kit

Marketing — 3

- Draft landing page
- Email templates
- PDF pitch summary

Deliverable: Go-to-market ready material

Post-MVP (Optional Phase 2 Features)

3D/VR Room Layout
Immersive preview of designed spaces with virtual reality capability

Video Simulation
Generate walkthrough videos from mood boards and design specifications

Voice-Assisted Tendering
Streamline procurement processes with voice command functionality

Supplier Benchmarking
AI-powered comparison and rating system for supplier performance

Budget Analysis
Procurement budget forecasting and optimization tools

Thank You

We're excited to partner with you on your Casaire MVP journey

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Month Timeline

Comprehensive development roadmap

15+

Expert Team

Dedicated specialists across disciplines