Functional Requirements Document (FRD)

Project: [Project Name]
Document ID: [ID] • **Version:** [vX.Y] • **Status:** [Draft/Final]
Owner: [Name, Title] • **Date:** [YYYY-MM-DD] • **Confidentiality:** [Internal/Restricted]

1. Document Control

1.1 Revision History

Version	Date	Author	Changes
v0.1	[YYYY-MM-DD]	[Name]	Initial draft

1.2 Approvals

Role	Name	Title	Date	Signature
Sponsor				
Product Owner				
BA Lead				
Tech Lead				

1.3 Distribution List
[Name — Team/Role — Email]

2. Overview

2.1 Purpose
[State what this FRD defines and who should use it.]

2.2 Background / Business Context
[Brief business problem/opportunity, target outcomes, success metrics.]

2.3 Scope

- **In Scope:** [Features/flows included]
- **Out of Scope (Non-Goals):** [Explicitly excluded items]

2.4 References

- BRD: [Link/ID]
- Design/Wireframes: [Link]
- Policies/Regulations: [e.g., KVKK/GDPR, PCI, SOX]
- Other Docs: [Link]

2.5 Glossary

[Term — Definition] (e.g., UAT, KPI, SLA, PII, etc.)

3. Stakeholders & RACI

3.1 Stakeholders

Group	Name(s)	Role / Interest
Business		
Product		
Technology		
Compliance/Legal		
Operations/Support		

3.2 RACI (High-Level)

Activity	Responsible	Accountable	Consulted	Informed
Requirements Elicitation				
Design Sign-off				
UAT				
Go-Live				

4. Assumptions, Dependencies, Constraints

- **Assumptions:** [e.g., data availability, SME access]
- **Dependencies:** [e.g., upstream APIs, vendor timelines]
- **Constraints:** [e.g., budget, regulatory deadlines, tech stack]

5. Users, Roles & Permissions

5.1 Personas / User Types
[Persona — Goals — Pain points — Key tasks]

5.2 Role-Permission Matrix

Role	Read	Create	Update	Delete	Admin	Notes
[Role A]	☐	☐	☐	☐	☐	
[Role B]	☐	☐	☐	☐	☐	

6. Functional Requirements

Use IDs for traceability: FR-###, link each to acceptance criteria and tests.

6.1 Requirement List (Tabular)

ID	Title	Description (What/Why)	Priority (MoSCoW)	Acceptance Criteria (Gherkin)	Notes/Refs
FR-001	[Feature/Action]	[Clear, testable description + business value]	Must	**Given** [pre-condition] **When** [action] **Then** [outcome]	[Wireframe link, rule IDs, error states]
FR-002					

6.2 Detailed Requirement Pattern (Use per feature)

- **ID:** FR-[###]
- **Name:** [Short action-oriented title]
- **Description:** [What the system must do; include rationale]
- **Actors / Roles:** [Who can do this]

- **Pre-conditions:** [Required state]
- **Main Flow:** [Step 1…N]
- **Alternate/Exception Flows:** [Edge cases, errors]
- **Data Elements:** [Inputs/outputs, validation]
- **Business Rules:** [BR-### references]
- **UI/UX:** [Wireframe/screen refs]
- **Analytics/Events:** [Tracking IDs, events]
- **Acceptance Criteria (Gherkin):**
  - Given […], When […], Then […]
  - Given […], When […], Then […]
- **Dependencies:** [Systems, APIs]
- **Notes:** [Open questions, risks]

Example (delete after use):
FR-001 — Submit Application

- **Description:** Users can submit an application with mandatory fields; system validates and assigns an ID.
- **Acceptance Criteria:**
  - **Given** a logged-in user with required fields completed **When** they click "Submit" **Then** the system creates an application record and shows a confirmation with Application ID.
  - **Given** a missing mandatory field **When** the user clicks "Submit" **Then** show inline error and block submission.

7. Process Flows & UX

7.1 BPMN / Flowcharts
[Link or page refs. Include "As-Is" and "To-Be".]

7.2 Wireframes / Screen Map
[Screen list, navigation, states (empty/loading/error/success).]

7.3 Content & Localization
[Copy tone, localization rules (languages, date/number formats).]

7.4 Accessibility
[WCAG 2.1 AA targets; keyboard nav; alt text; contrast.]

8. Data Model & Dictionary

8.1 Entity Overview / ERD
[Entities, relationships; link diagram.]

8.2 Data Dictionary

Entity	Field	Type/Format	Required	Validation	Default	Source	PII	Retention
Application	application_id	String (UUID)	Yes	Unique	Auto	System	No	7 yrs

8.3 Data Lifecycle

[Creation → Update → Archive → Deletion; records management.]

9. Integrations & Interfaces

9.1 Interface Inventory

ID	External System	Direction	Purpose	Protocol	Auth	SLA
INT-001	[System]	In/Out	[What/Why]	REST/GraphQL/SOAP/ETL	OAuth2/API Key	[e.g., 99.9%]

9.2 API Contracts (if applicable)

- **Endpoint:** [Method + Path]
- **Request/Response Schemas:** [JSON examples or refs]
- **Pagination/Rate Limits:** [Rules]
- **Timeouts/Retry/Backoff:** [Values]
- **Error Handling:** [Codes, messages, user feedback]

10. Business Rules

Codify decision logic distinct from UI.

ID	Rule	Logic / Pseudocode	Trigger	Exceptions
BR-001	[Rule name]	[If/Then, table, or pseudo]	[Event/State]	[Edge cases]

11. Non-Functional Requirements (NFRs)

Area	Requirement
Performance	[e.g., P95 API latency ≤ 300 ms; throughput X req/s]
Availability	[e.g., 99.9% monthly]
Scalability	[Auto-scale from X to Y users/sessions]
Security	[OAuth2, RBAC, least privilege, OWASP ASVS, encryption in transit (TLS 1.2+) & at rest (AES-256)]
Privacy/Compliance	[KVKK/GDPR data minimization, DSR handling, consent]
Reliability/DR	[RPO ≤ X mins, RTO ≤ Y mins, backups daily]
Observability	[Logs, metrics, traces; dashboards; alerts]
Usability	[Task success ≥ X%, SUS ≥ Y]
Accessibility	[WCAG 2.1 AA compliance]
Localization	[Languages; time zone handling; formats]
Maintainability	[Coding standards, CI/CD, test coverage ≥ X%]
Supportability	[Runbooks, on-call, error codes documented]

12. Reporting & Analytics

- **KPIs / OKRs:** [Definitions and formulas]
- **Dashboards:** [Who sees what; update frequency]
- **Event Tracking Spec:** [Event names, properties, user IDs, consent]
- **Data Quality Checks:** [Thresholds, alerts]

13. UAT Plan & Sign-Off

13.1 Entry Criteria

[Environments ready, data seeded, test users created, builds stable.]

13.2 UAT Scenarios

- Map scenarios to **FR-IDs** and **BR-IDs**
- Include positive, negative, edge cases

13.3 Defect Management

[Severity levels, triage, SLA for fixes.]

13.4 Exit Criteria

[All Must-have FRs pass; critical defects closed; sign-offs obtained.]

13.5 Sign-Off

Role	Name	Date	Signature
Business Owner			
Product Owner			
QA Lead			

14. Rollout, Training & Change Management

- **Release Plan:** [Phased/Big-bang, feature flags, country/segment rollout]
- **Migration:** [Data mapping, cutover steps, rollback plan]
- **Training:** [User guides, LMS modules, sessions]
- **Communication Plan:** [Who/when/what channels]
- **Support Model:** [Tier 1/2/3, SLAs, escalation]

15. Risks & Open Issues

15.1 Risk Register

ID	Risk	Impact	Likelihood	Mitigation	Owner
R-001					

15.2 Open Issues / Decisions Log

ID	Issue/Decision	Owner	Due Date	Status
OI-001				

16. Traceability Matrix

Link BRD → FRD → Design → Test Cases → Defects → Releases.

BRD ID	FRD ID	Design Ref	Test Case ID	Defect ID	Release
BR-###	FR-###	[Link]	TC-###	DEF-###	R-###

17. Appendices

- **A. Glossary (Full)**
- **B. API Schemas / Data Models**
- **C. Wireframes / UI Style Guide**
- **D. Compliance Artifacts** (e.g., DPIA, consent screens)