

Requirements Traceability Matrix

Requirements Traceability Matrix (RTM): {{PROJECT_NAME}}

“ **Project:** {{PROJECT_NAME}} **Version:** {{VERSION}} **Date:** {{DATE}}
Author: {{AUTHOR}} **Status:** Draft | In Review | Approved **Reviewers:** {{REVIEWERS}}

Document History

Version	Date	Author	Changes
0.1	{{DATE}}	{{AUTHOR}}	Initial draft

1. Purpose of Traceability

The Requirements Traceability Matrix serves four functions:

- Coverage Assurance** — Every business requirement has an implementation path and test cases
- Change Impact** — When a requirement changes, quickly identify all affected code and tests
- Gap Detection** — Identify requirements with no tests (coverage gap) or tests with no requirements (scope creep)
- Audit Trail** — Demonstrates compliance with processes for client sign-off and quality gates

Traceability Directions:

- Forward Traceability** — BR → FR → Code → Test (did we build what was required?)
- Backward Traceability** — Test → Code → FR → BR (does everything we built have a justification?)

2. Document References

Document	Location	Version	Last Updated
Business Requirements Document (BRD)	brd.md	{{VERSION}}	{{DATE}}
Functional Requirements Spec (FRS)	functional-requirements.md	{{VERSION}}	{{DATE}}
Non-Functional Requirements	non-functional-requirements.md	{{VERSION}}	{{DATE}}
User Stories	user-stories.md	{{VERSION}}	{{DATE}}
Acceptance Criteria	acceptance-criteria.md	{{VERSION}}	{{DATE}}
Test Plan	../TESTING/test-plan.md	{{VERSION}}	{{DATE}}
Test Cases	../TESTING/test-case.md	{{VERSION}}	{{DATE}}

3. Forward Traceability Matrix

3.1 Functional Requirements Traceability

BR ID	Business Requirement	FR ID	Functional Requirement	US ID	Design Reference	Code Module / Component	Unit Test	Integration Test	AC ID	Status
BR-001	{{BUSINESS_REQ}}	FR-001	{{FUNCTIONAL_REQ}}	US-001	[figma/screen-01]	[src/modules/{{MODULE}}]	<input type="checkbox"/>	<input type="checkbox"/>	AC-001	<input type="checkbox"/> In Progress
BR-002		FR-002		US-002			<input type="checkbox"/>	<input type="checkbox"/>	AC-003	<input type="checkbox"/> Not Started
BR-003		FR-010		US-010						
BR-004		FR-011		US-011						

BR ID	Business Requirement	FR ID	Functional Requirement	US ID	Design Reference	Code Module / Component	Unit Test	Integration Test	AC ID	Status
BR-005		FR-020	User Registration	US-020	figma/register	src/auth/register	<input type="checkbox"/>	<input type="checkbox"/>	AC-010	<input type="checkbox"/>
BR-006		FR-021	User Login	US-021	figma/login	src/auth/login	<input type="checkbox"/>	<input type="checkbox"/>	AC-020	<input type="checkbox"/>
BR-007		FR-030								

3.2 Non-Functional Requirements Traceability

NFR ID	Requirement	Target	Test Type	Test Case ID	Status
NFR-P01	Page load time < 3s	< 3s (initial)	Performance	PERF-001	<input type="checkbox"/>
NFR-P03	API response < 500ms	p95 < 500ms	Performance	PERF-002	<input type="checkbox"/>
NFR-SEC01	Authentication	JWT/OAuth2	Security	SEC-001	<input type="checkbox"/>
NFR-SEC06	Input validation	No injection	Security / SAST	SEC-010	<input type="checkbox"/>
NFR-U03	WCAG 2.1 AA	Level AA	Accessibility	A11Y-001	<input type="checkbox"/>
NFR-A01	Uptime SLA ≥ 99.5%	99.5% monthly	Operations	OPS-001	N/A
NFR-COMP01	GDPR compliance	Full compliance	Compliance audit	COMP-001	<input type="checkbox"/>

4. Backward Traceability Matrix

Test Case ID	Test Description	AC ID	FR ID	BR ID	Has Requirement?
TC-001	{{TEST_DESCRIPTION}}	AC-{{XXX}}	FR-{{XXX}}	BR-{{XXX}}	<input type="checkbox"/> Yes
TC-002					<input type="checkbox"/> Yes
TC-010	{{TEST_WITHOUT_REQUIREMENT}}	—	—	—	⚠ No — investigate

5. Coverage Analysis

5.1 Requirement Coverage Summary

Category	Total Count	Fully Covered	Partially Covered	Not Covered	Coverage %
Business Requirements (BR)	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
Functional Requirements (FR)	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
Non-Functional Requirements (NFR)	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
User Stories (US)	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
Acceptance Criteria (AC)	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%

Overall Requirement Coverage: {{PCT}}% **Target:** ≥ 95% before UAT; 100% before production release

5.2 Test Coverage Summary

Test Type	Total Tests	Passing	Failing	Skipped	Coverage
Unit tests	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
Integration tests	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
E2E / UAT scenarios	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{COUNT}}	{{PCT}}%
Performance tests	{{COUNT}}				
Security tests	{{COUNT}}				

6. Gap Identification

6.1 Requirements Without Test Coverage

Requirement ID	Description	Gap Type	Action Required	Owner	Target Date
FR-{{XXX}}	{{DESCRIPTION}}	No test cases written	Create test cases TC-{{XXX}}	QA	{{DATE}}
BR-{{XXX}}		No functional requirement	Write FR-{{XXX}}	BA	{{DATE}}

6.2 Test Cases Without Requirements (Orphans)

Test Case ID	Description	Status	Action
TC-{{XXX}}	{{DESCRIPTION}}	Orphaned	Investigate: link to req or delete

6.3 Requirements Without Design Reference

Requirement ID	Description	Action
FR-{{XXX}}	{{DESCRIPTION}}	Request design mockup from Designer

7. Change Impact Tracking

Change Request ID	Changed Requirement	Impact on FR	Impact on Code	Impact on Tests	Impact Assessment	CR Status
CR-001	{{REQUIREMENT_CHANGE}}	FR-{{XXX}} needs update	src/{{MODULE}} affected	TC-{{XXX}} needs update	{{EFFORT_ESTIMATE}}	{{APPROVED/PENDING}}

8. Traceability Status Dashboard

Last Updated: {{DATE}} Updated By: {{NAME}}

Metric	Value	Target	Status
Total Business Requirements	{{COUNT}}	—	
BRs with FR coverage	{{COUNT}} / {{TOTAL}}	100%	{{PROGRESS}}

Metric	Value	Target	Status
FRs with test coverage	{{COUNT}} / {{TOTAL}}	100%	{{□ /△/□}}
Test cases passing	{{COUNT}} / {{TOTAL}}	100%	{{□ /△/□}}
Open gaps	{{COUNT}}	0	{{□ /△/□}}
Change requests open	{{COUNT}}	≤ 3 at a time	{{□ /△/□}}
UAT sign-off pending	{{COUNT}}	0 at launch	{{□ /△/□}}

Overall RTM Health: {{GREEN / AMBER / RED}}

Approval

Role	Name	Date	Signature
Author			
Reviewer			
Business Analyst			
QA Engineer			
Tech Lead			
AI Director (John)			

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