

Non-Functional Requirements Template

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1 Non-Functional Requirement Categories

1.1 Performance

- Response time
- Throughput
- Resource utilization
- Capacity
- Scalability

1.2 Security

- Authentication
- Authorization
- Data protection
- Encryption
- Audit logging

1.3 Usability

- User interface
- Accessibility
- Learning curve
- Documentation
- Error handling

1.4 Reliability

- Availability
- Fault tolerance
- Recoverability
- Backup/restore
- Error handling

1.5 Compatibility

- Platform support
- Browser compatibility
- Mobile responsiveness
- Integration capabilities
- Standards compliance

2 Requirement Structure

2.1 Basic Format

NFR-[XXX]: [Requirement Title]

Category: [Performance | Security | Usability | Reliability | Compatibility]

Description: [Brief description of the requirement]

Measurement Criteria: - Metric: [Specific measurable criterion] - Target: [Quantifiable target value] - Method: [How it will be measured]

Priority: [Must have | Should have | Could have | Won't have]

Verification: [Testing/validation approach]

2.2 Example

NFR-201: System Response Time

Category: Performance

Description: The system must provide responsive user interface interactions.

Measurement Criteria: - Metric: Page load time - Target: < 2 seconds for 95% of requests - Method: Automated performance testing

Priority: Must have

Verification: Load testing with production-like data

3 Requirement Relationships

3.1 Related Requirements

Associated FRs: - FR-103: User Authentication - FR-104: Account Creation

Implementing Stories: - E01-F01-US01: Account Creation - E01-F01-US02: Password Reset

3.2 Example with Links

NFR-201: System Response Time

Category: Performance

Description: The system must provide responsive user interface interactions.

Measurement Criteria: - Metric: Page load time - Target: < 2 seconds for 95% of requests - Method: Automated performance testing

Priority: Must have

Verification: Load testing with production-like data

Requirement Dependencies: - Functional: @fr:FR-103, @fr:FR-104 - User Stories: @story:E01-F01-US01, @story:E01-F01-US02

4 Cross-Reference Matrix

NFR ID	User Stories	FRs
NFR-201	E01-F01-US01, E01-F01-US02	FR-103, FR-104

5 Testing Considerations

Document specific testing approaches for different NFR categories:

5.1 Performance Testing

- Load testing
- Stress testing
- Endurance testing
- Spike testing
- Scalability testing

5.2 Security Testing

- Penetration testing
- Security scanning
- Vulnerability assessment
- Access control testing
- Encryption verification

5.3 Usability Testing

- User acceptance testing
- Accessibility testing
- Interface consistency checks
- Error message validation
- Documentation review

6 Validation Checklist

Before finalizing a non-functional requirement:

- ☐ Requirement is categorized correctly
- ☐ Metrics are specific and measurable
- ☐ Target values are realistic and justified
- ☐ Testing approach is defined
- ☐ Priority is assigned
- ☐ Dependencies identified
- ☐ Verification method is feasible