

Non Functional Requirement

Scalability

Reliability

Maintainability

Availability

Performance

Capacity

Manageability

Interoperability

Security

Usability

Extensibility

Recovery

It's all about flexibility



↗ Performance

Responsiveness of application

Attributes

Throughput
Response Time

↗ Scalability

Ability to handle an increase in the workload

Attributes

Throughput
Storage
Growth Requirement

Vertical - Adding More Resources



Horizontal - Adding more Nodes



↗ Availability

Availability is measured as the percentage of total application downtime over a defined time period.

Attributes

Availability, Location of Operation, Recoverability, Resilience

➤ Capacity

A factor of scalability, which measures how storage hardware would increase with time

Attributes

Throughput

Volume of data with time

Year and year Growth (users, processing, storage)

➤ Security

Security is the ability of an application to avoid malicious incidences and events outside of the designed system usage, and prevent disclosure or loss of information.

Attributes

Authentication, Authorisation, Encryption, Data Confidentiality, Compliance

➤ Maintainability

ability to go through modifications and updates

Attributes

Design & Coding Standard

Flexiability & Release Support

➔ Manageability

Manageability is the ease with which the administrators can manage the application, through useful instrumentation exposed for monitoring

Attributes

Total Traceability of System with traceIds

Dashboard to monitor metrics & KPIs

Events & Alerts in case of unexpected behaviour

➔ Reliability

Reliability is the ability of the application to maintain its integrity and veracity over a time span and also in the event of faults or exceptions.

Attributes

Data, Application & Information Integrity

Fault Tapping, Handling Failures & Recovery

➔ Extensibility

Extensibility is the ability of a system to cater to future changes through flexible architecture, design, or implementation.

Attributes

Handle new information types

Manage new or changed business entities

Consume or provide new feeds

➤ **Recovery**

In the event of a natural calamity, how soon you can recover

Attributes

RTO (Recovery Time Objectives)

RPO (Recovery Point Objectives)

Restore Time

Backup Time

Backup Frequencies

➤ **Interoperateability**

Ability to exchange information and communicate with internal and external applications and system

Compatability with

Shared application, 3P application, Different OS and hardware platforms.

Achieved via

Publishing Interface (Documentation)

Loosely couples with external system

→ Usability

Ability to measure consistency and
aesthetics in the user interface

Attributes

Look & Feel

Location & i18



Summarised By

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Book Credit

Mastering Non Functional Requirement

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