

CS 301

Requirements Preliminaries

Eswaran Narasimhan

02 – Sep - 2024

Software Requirement Specification

What



Why

When

Who

Where

How

**Complete
documentation of
the need**

Software Requirement Specification

What →

Why

When

Who

Where

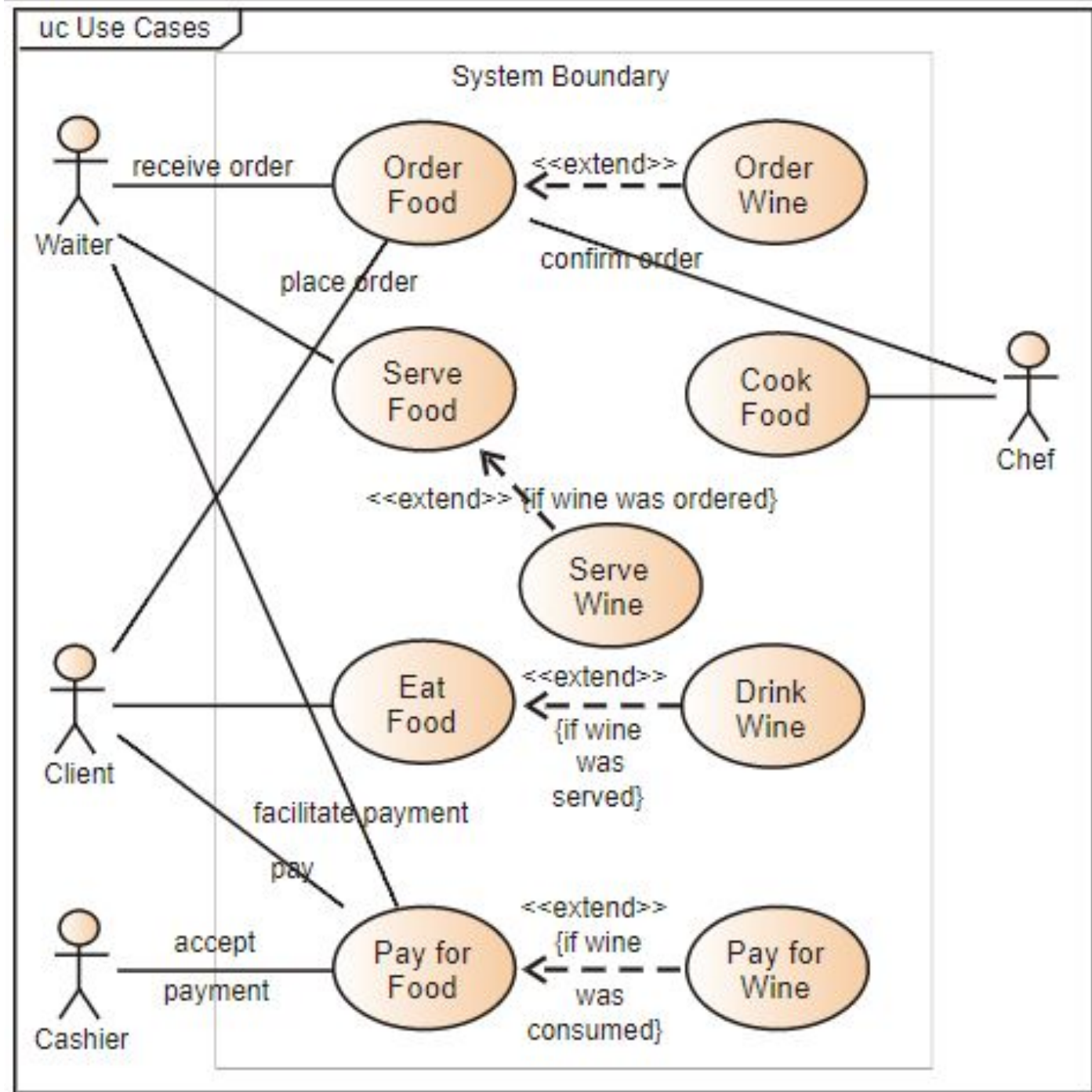
How

**Complete
documentation of
the need**

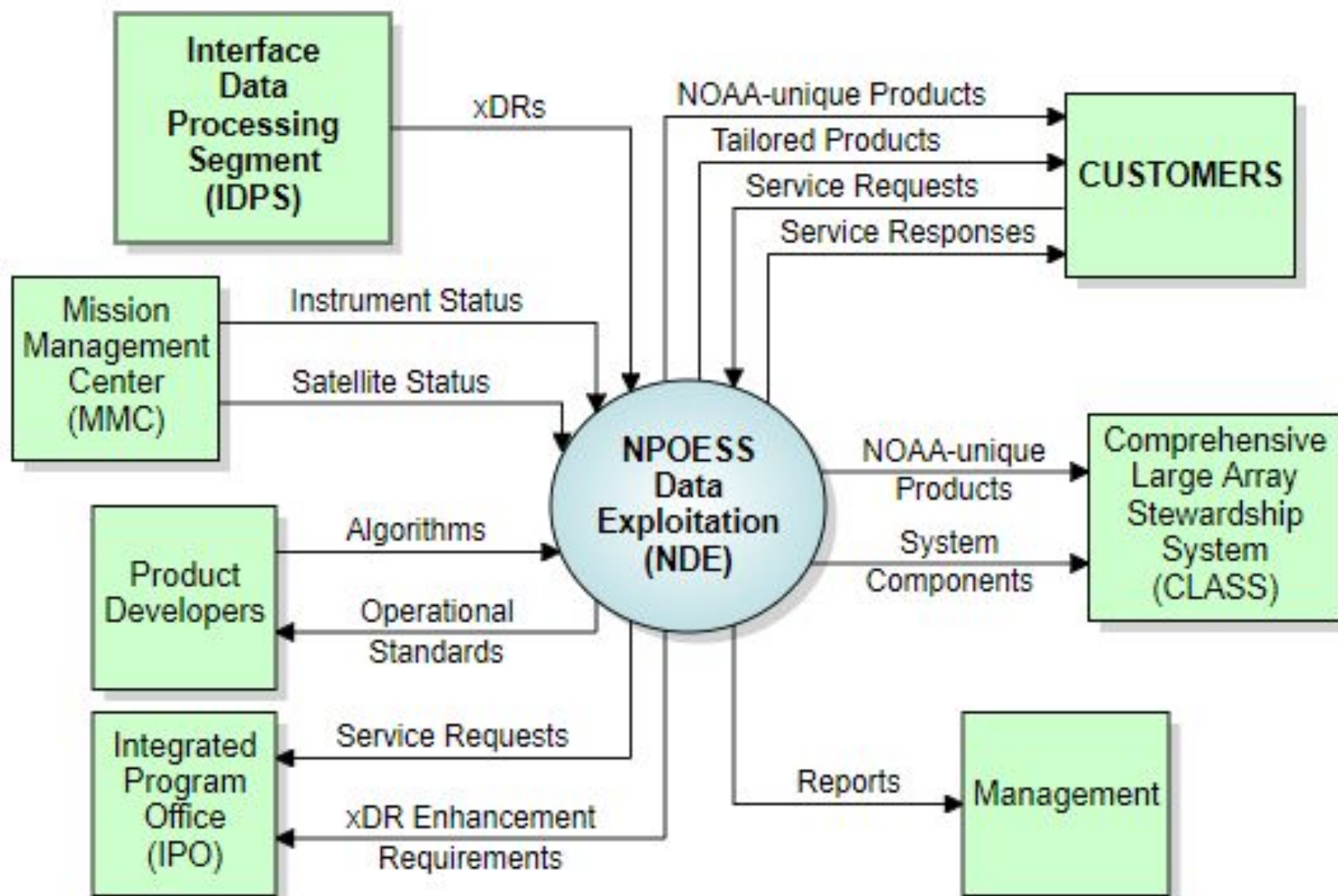
**Functional
Non-Functional
User Interface
Constraints
Standards**

Functional

- ☐ Actor
- ☐ Stakeholder
- ☐ Primary Actor
- ☐ Preconditions Triggers
- ☐ Main success scenarios
- ☐ Alternative paths



Functional



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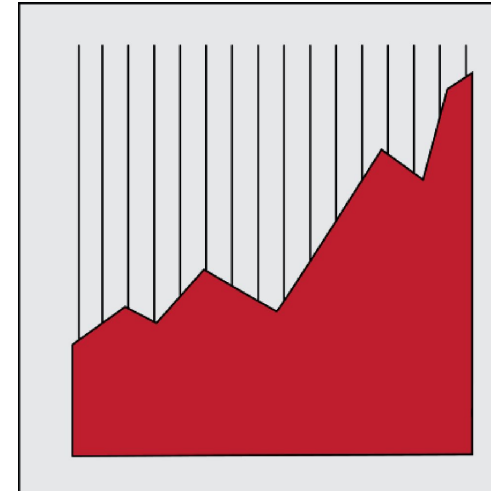
Non-Functional Requirement

Performance, Scalability,
Capacity, Availability, Reliability,
Recoverability, Maintainability,
Serviceability, Security,
Regulatory, Manageability,
Environmental
Data Integrity, Usability,
Interoperability

Also termed as “-ilities”

Non-Functional Requirement

- ☐ Performance
- ☐ Scalability
- ☐ Capacity
- ☐ Availability



Non-Functional Requirement

- ☐ Reliability
- ☐ Recoverability
- ☐ Maintainability
- ☐ Serviceability



Non-Functional Requirement

- ☐ Security
- ☐ Regulatory
- ☐ Manageability
- ☐ Environmental
- ☐ Data Integrity



Non-Functional Requirement

- ☐ Usability
- ☐ Interoperability



Software Requirement Specification

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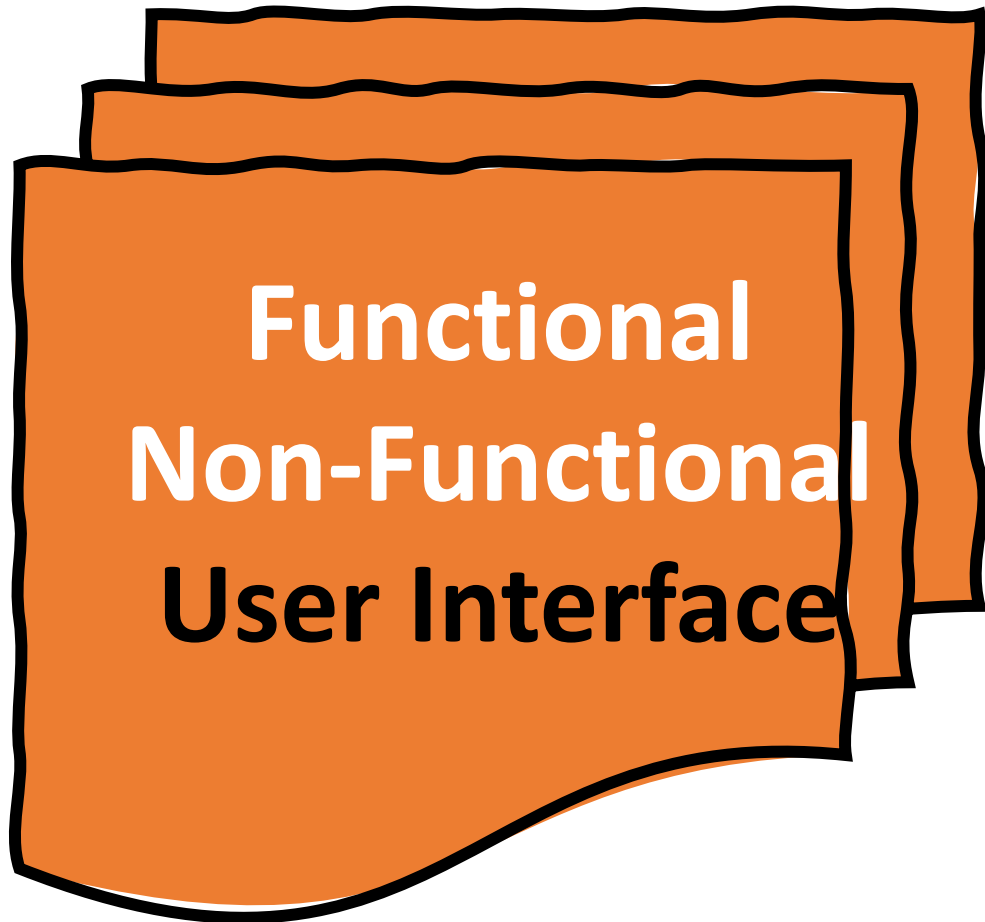
Where

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**Complete
documentation of
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**Functional
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User Interface
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User Interface Elements



Input Controls

- ☐ Checkboxes
- ☐ Radio buttons
- ☐ Dropdown lists
- ☐ List boxes
- ☐ Buttons
- ☐ Toggles
- ☐ Text fields
- ☐ Date field

Navigational Components

- ☐ Breadcrumb
- ☐ Slider
- ☐ Search field
- ☐ Pagination slider
- ☐ Tabs and Tags
- ☐ Icons

Informational Components

- ☐ Tooltips
- ☐ Icons
- ☐ Progress bar
- ☐ Notifications
- ☐ Message boxes
- ☐ Modal windows

Software Requirement Specification

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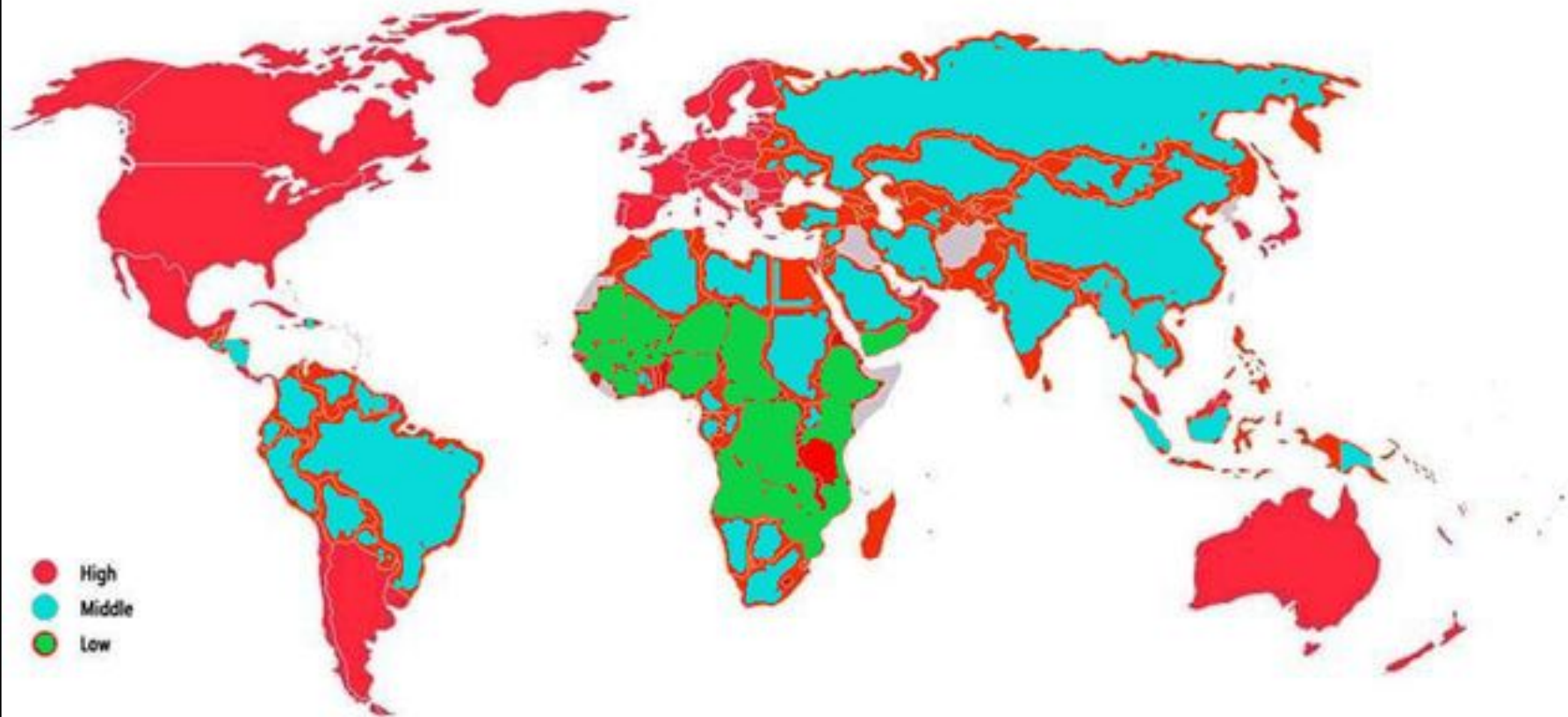
How

**Complete
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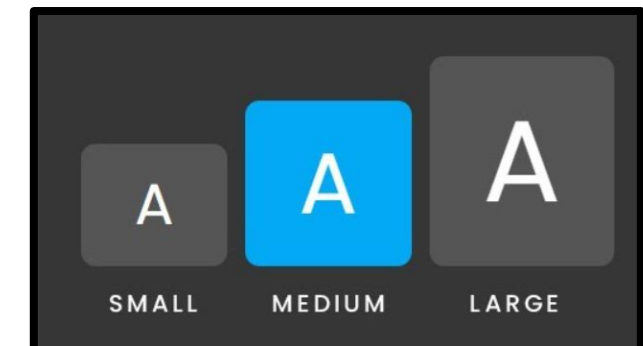
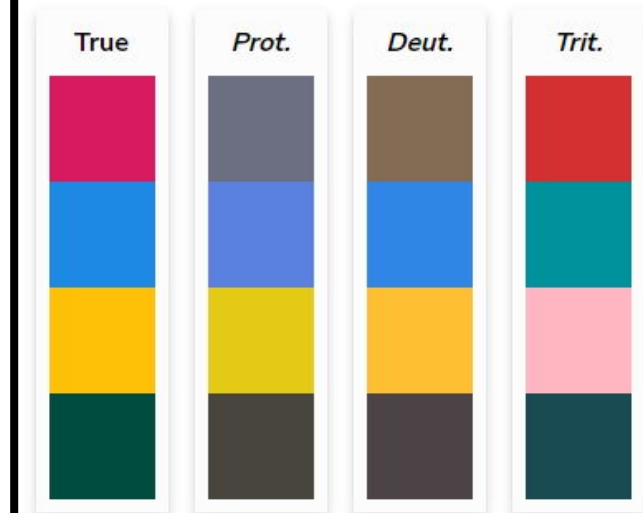
**Functional
Non-Functional
User Interface
Constraints
Standards**

Constraints and Standards

World Incidence of Color Blindness



Color Palette



Software Requirement Specification

What

Why

When

Who

Where

How



Communicate

Estimate

Refer

Arbitrate

Enhance

Software Requirement Specification

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Software Requirement Specification

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Arbitrate

Enhance



Requirements Traceability Matrix

Requirement Identifiers	Reqs Tested	REQ1 UC 1.1	REQ1 UC 1.2	REQ1 UC 1.3	REQ1 UC 2.1	REQ1 UC 2.2	REQ1 UC 2.3.1	REQ1 UC 2.3.2	REQ1 UC 2.3.3	REQ1 UC 2.4	REQ1 UC 3.1	REQ1 UC 3.2	REQ1 TECH 1.1	REQ1 TECH 1.2	REQ1 TECH 1.3
Test Cases	321	3	2	3	1	1	1	1	1	1	2	3	1	1	1
Tested Implicitly	77														
1.1.1	1	x													
1.1.2	2		x	x											
1.1.3	2	x											x		
1.1.4	1			x											
1.1.5	2	x												x	
1.1.6	1		x												
1.1.7	1			x											
1.2.1	2				x		x								
1.2.2	2					x		x							
1.2.3	2								x	x					
1.3.1	1										x				
1.3.2	1										x				
1.3.3	1											x			
1.3.4	1											x			
1.3.5	1											x			
etc....															
5.6.2	1														x

❑ Coverage

❑ Missing Requirements

❑ Missing Test cases

❑ Overdesigning

❑ Underdesigning

Software Requirement Specification

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Communicate

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**On completion of
Requirements
Analysis**

**Yes,
Updates are possible**

Software Requirement Specification

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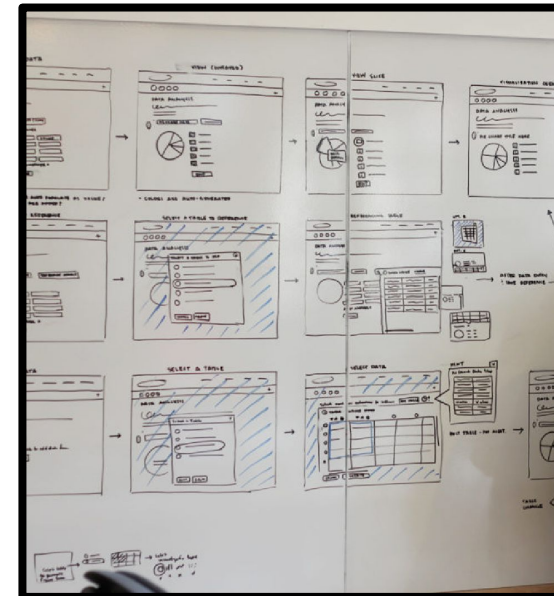
When

Who

Where

How

Users
Designers
Management
Architects
Test Engineers



Software Requirement Specification

What

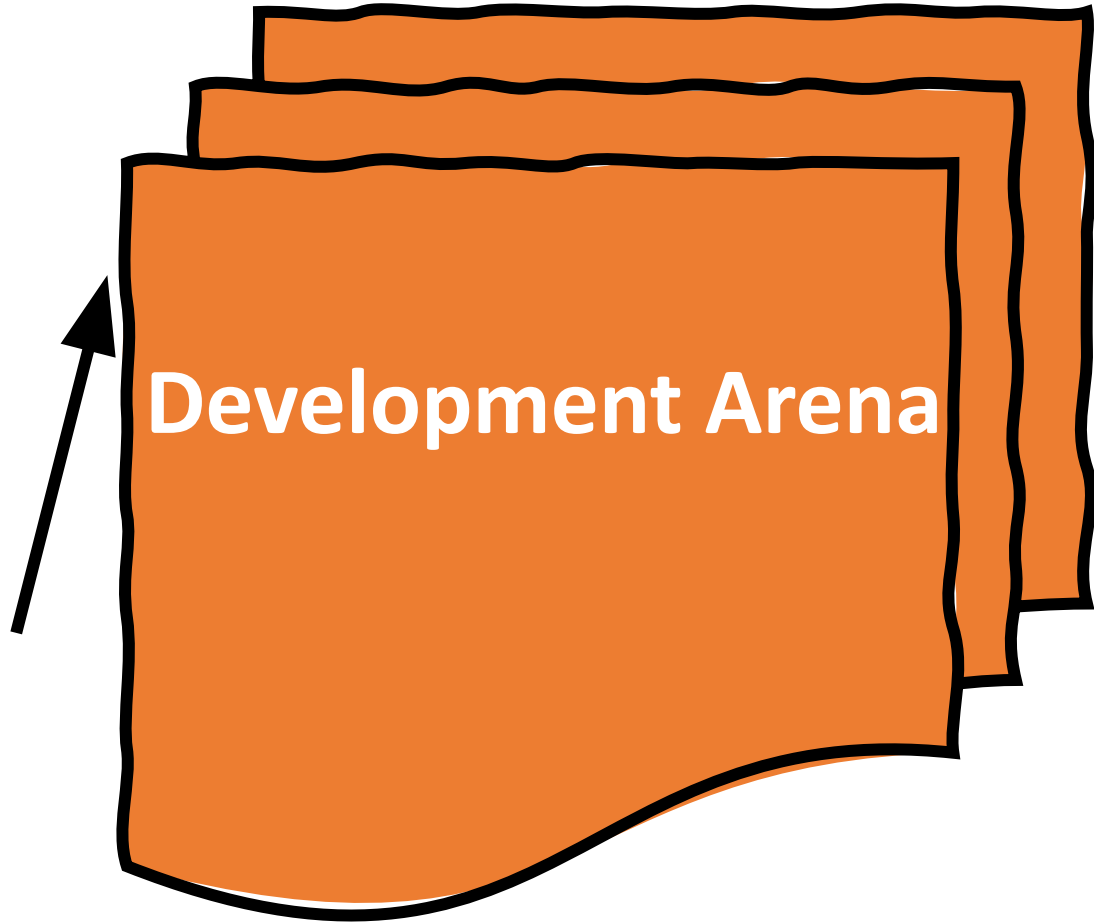
Why

When

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Yes,
Online Publishing is ok

Software Requirement Specification

What

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Stakeholder Analysis

Interview

Document Analysis/Review

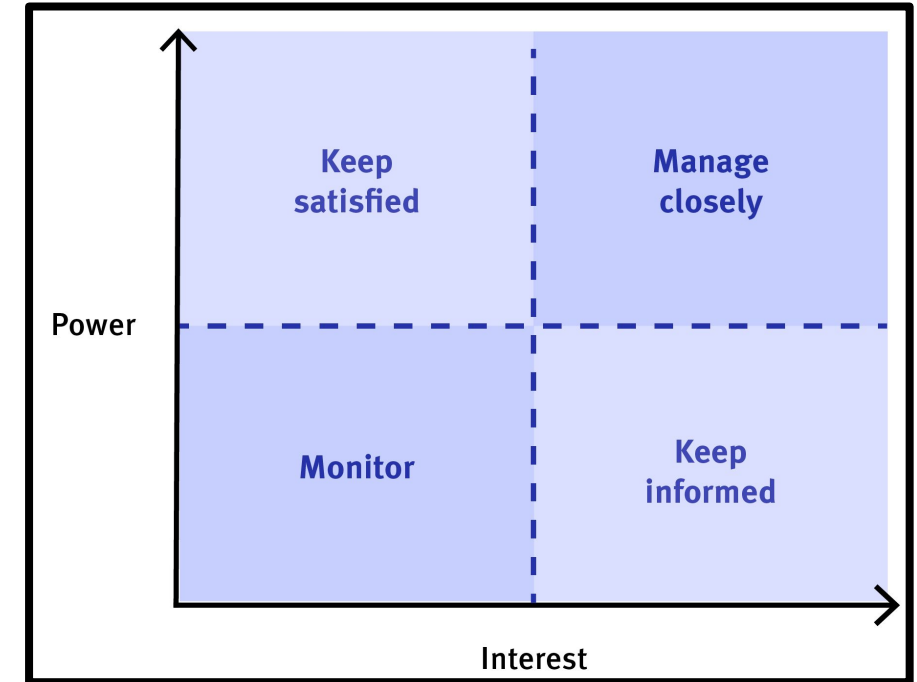
Interface Analysis

Observation

Prototyping

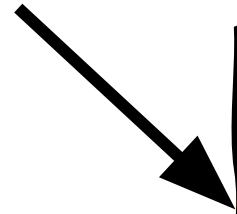
Requirement Workshops

Questionnaire



Software Requirement Specification

Challenges



Multilingual
Multi-location
Timezones
Currency
Tech-Savvy

Software Requirement Specification

Multilingual



<https://www.onehourtranslation.com/translation/blog/were-living-multilingual-world>

**Translations
Updates**

Software Requirement Specification

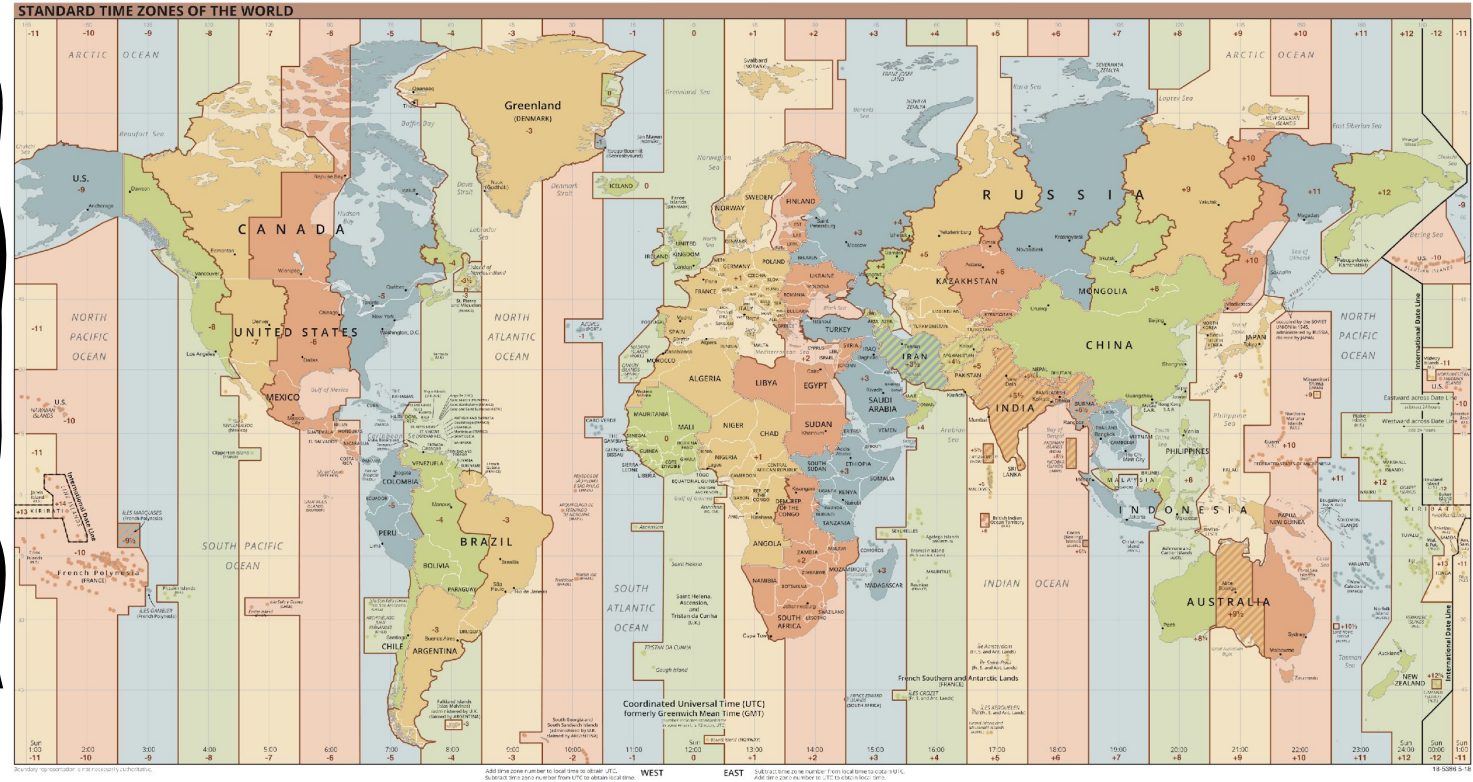
Multi-location



Locales customization
Local Flavour

Software Requirement Specification

Timezones



https://en.wikipedia.org/wiki/Time_zone

Software Requirement Specification

Currency

Conversion Rates



Software Requirement Specification

