Welcome!

User Stories

Software Engineering Careers

Requirement Engineering
the process of defining user expectations for a new. software being built or modified
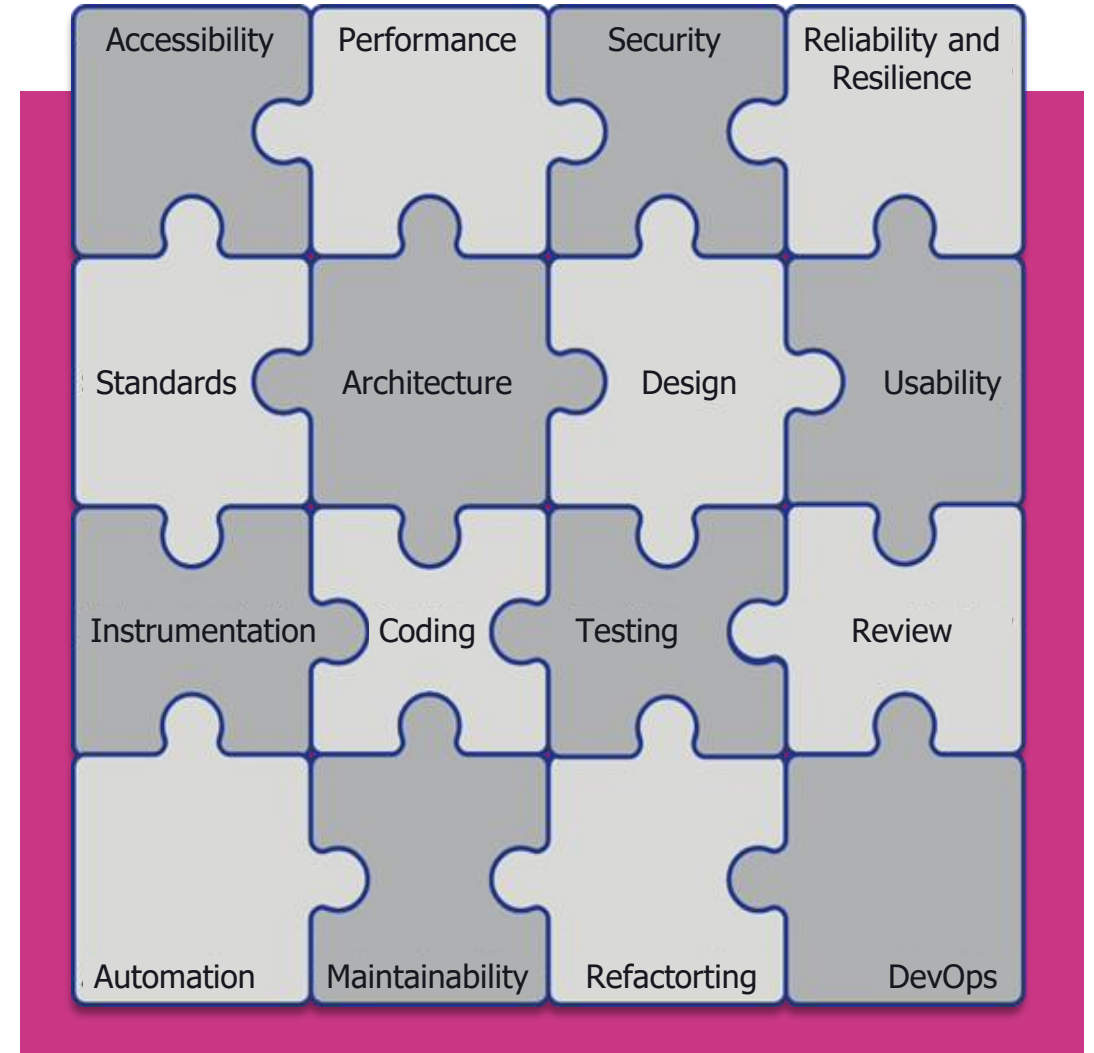
(Adapted from Byststrone, 2021)

User Requirements

User requirements →
Client managers
System end-users
Client engineers
Contractor managers
System architects

System requirements →
System end-users
Client engineers
System architects
Software developers
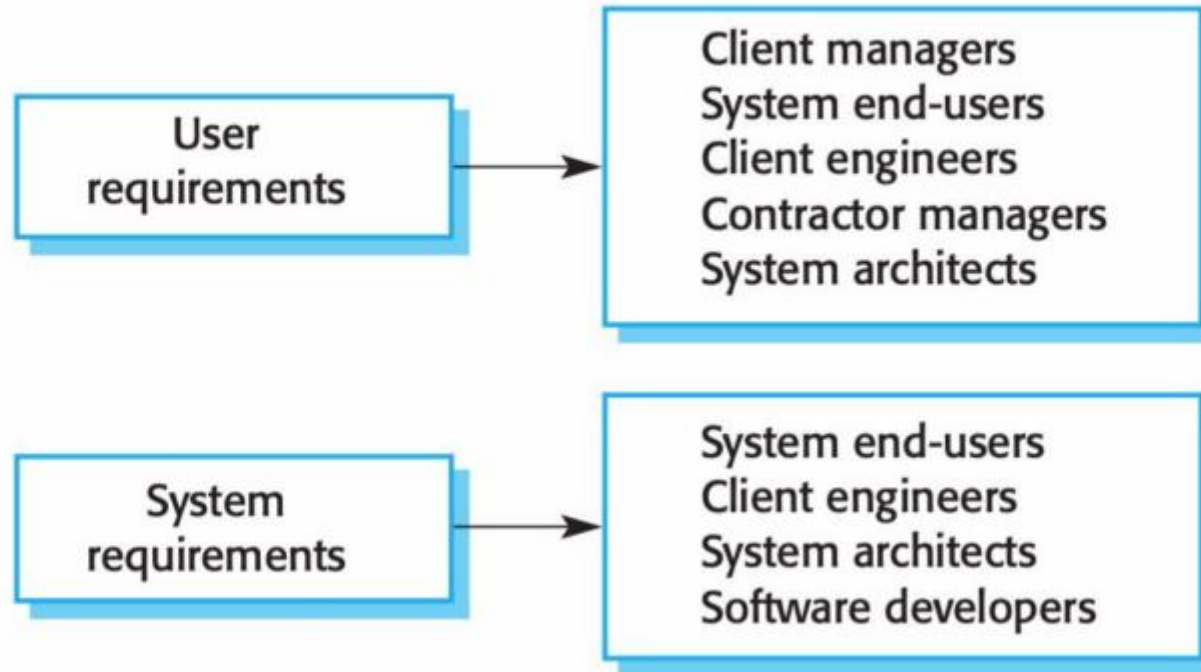
User Story- User Requirements

User Stories →

User requirements definition

1. The Mentcare system shall generate monthly management reports showing the cost of drugs prescribed by each clinic during that month.
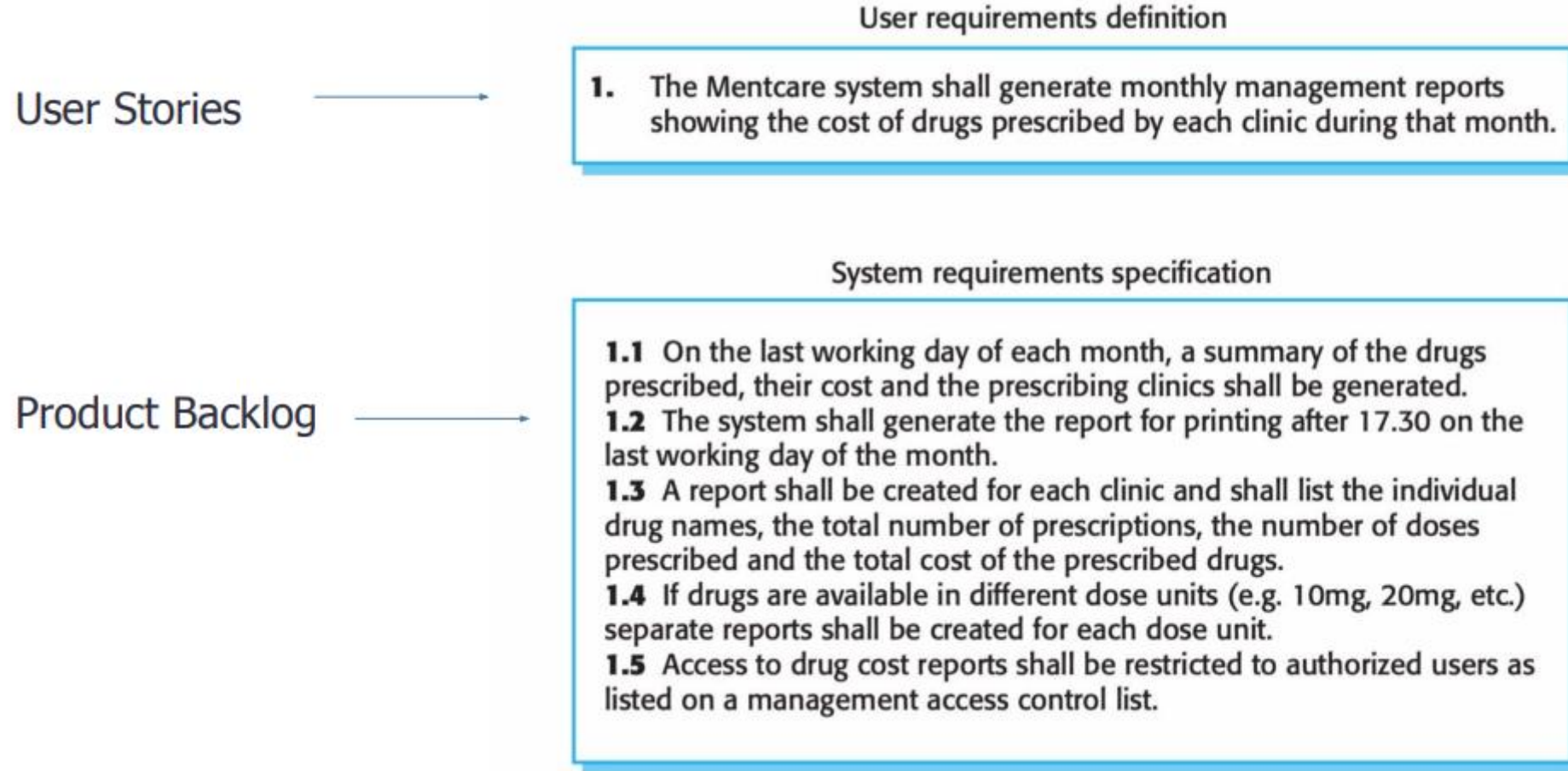
System Requirements

User Stories →

User requirements definition

1. The Mentcare system shall generate monthly management reports showing the cost of drugs prescribed by each clinic during that month.

Product Backlog →

System requirements specification

1.1 On the last working day of each month, a summary of the drugs prescribed, their cost and the prescribing clinics shall be generated.

1.2 The system shall generate the report for printing after 17.30 on the last working day of the month.

1.3 A report shall be created for each clinic and shall list the individual drug names, the total number of prescriptions, the number of doses prescribed and the total cost of the prescribed drugs.

1.4 If drugs are available in different dose units (e.g. 10mg, 20mg, etc.) separate reports shall be created for each dose unit.

1.5 Access to drug cost reports shall be restricted to authorized users as listed on a management access control list.

System Requirements

Functional	Non-Functional
Statements of services the system should provide. How the system should react to inputs. How the system should behave in various situations.	Constraints on the services or functions offered by the system. Not directly concerned with the specific services develiver by the system to its users.
Describes what the system should do...or not do.	Applies to the system as a whole rather than individual system features or service.

System Requirements

Non-Functional Requirements

- Product Requirements

- Organizational Requirements

- External Requirements
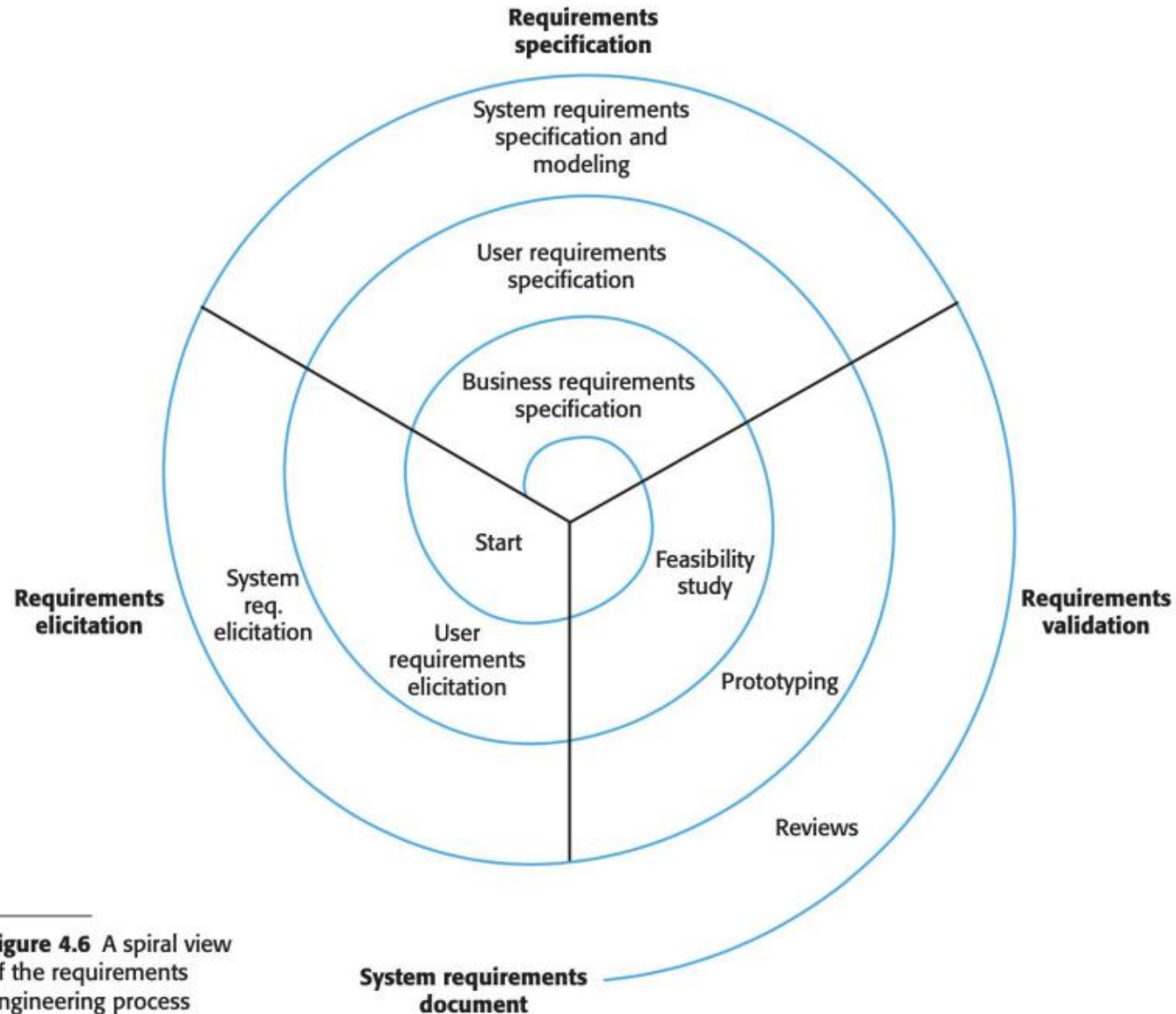
Requirement Engineering Process

Figure 4.6 A spiral view of the requirements engineering process

What Is a User Story?

A statement that describes **a specific outcome** a user will expect from interacting with the software.

The **smallest unit of work** in an agile framework

It is **an end goal**, not a feature, expressed from the software user's perspective.

The user story is defined in **1-3 sentences** of what a user wants to achieve through the software.

User Story
Ron Jeffries

Three Cs

Card

- Stories are traditionally written on note cards.
- Cards may be annotated with estimates, notes, etc.

Conversation

- Details behind the story come out during conversations with product owner

Confirmation

- Acceptance tests confirm a story was coded correctly

Source: XP Magazine 8/30/01, Ron Jeffries.

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Ron Jeffries ✔
@RonJeffries

...

As an author of the Agile Manifesto
I want that stupid story format to go away
So that people can get to the essence of user stories.
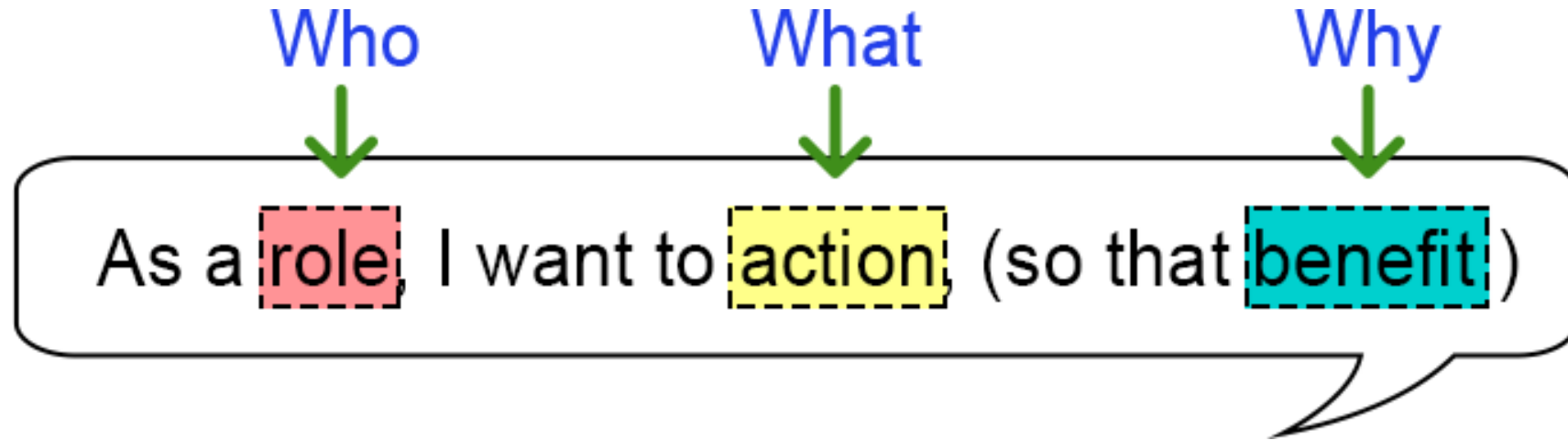
(Jeffries, 2016)

User Story
Ron Jeffries

As a conference attendee, I want to be able to register online, so that I register quickly and cutdown on paperwork.

User Story
The Card

Card – Online registration for conference attendees for efficient and easy registration

+ Originally, 3×5-inch index cards or sticky notes

+ Specify:

- A class of users (the user role)

- What the class of users wants to achieve (the goal)

- Why the users want to achieve the goal (the benefit)

User Story
A piece of system functionality, understood by the Customer / Product Owner, representing an increment of business value, to be implemented by the team

User Story

The Card

Card — Online registration for conference attendees for efficient and easy registration

+ Not a requirements document

+ Just "a thing to do"

+ Has just enough text to identify the requirement, and to remind everyone what the story is

+ A token representing the requirement

+ Often handed to the programmers when the story is scheduled to be implemented, and given back to the customer when the story is complete

User Story

The Conversation

Card – Online registration for conference attendees for efficient and easy registration

+ Communicated from customer to programmers and amongst the team

+ An exchange of thoughts, opinions, and feelings and questions

+ Takes place over time

+ Largely verbal, but can be supplemented with documents

+ Craft your conversation around:

- What information needs to be collected?

- Where does this information need to collected, stored, delivered?

- Does the user need to be sent an acknowledgment?

User Story

The Confirmation

Card — Online registration for conference attendees for efficient and easy registration

+ Shows the acceptance test

+ Written in simple language and are used to confirm when the story is completed and working as intended

+ Acceptance criteria:

- A user cannot submit a form without completing all the mandatory fields.

- Information from the form is stored in the registration database.

- Protection against spam is working.

- Payment can be made via credit card.

- An acknowledgement email is sent to the user.

I.N.V.E.S.T.

+ The acronym I.N.V.E.S.T. helps to remember a widely accepted set of criteria, or checklist, to assess the quality of a user story.

I **Independent**

The stories can be delivered in any order.

N **Negotiable**

The details of what's in the story are co-created by the programmers and customer during development.

V **Valuable**

The functionality is seen as valuable by the customers or users of the software.

E **Estimable**

The programmers can come up with a reasonable estimate for building the story.
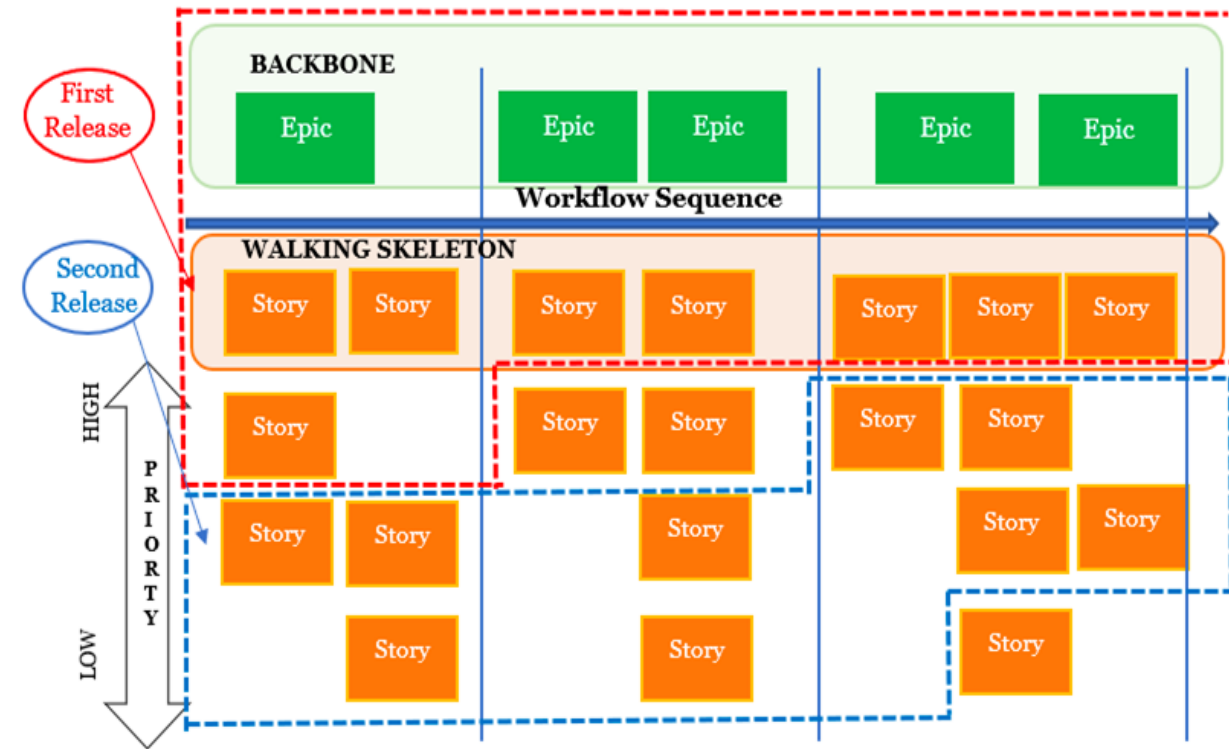
S **Small**

Stories should be built in a small amount of time, usually a matter of person-days. Certainly, you should be able to build several stories within one iteration.

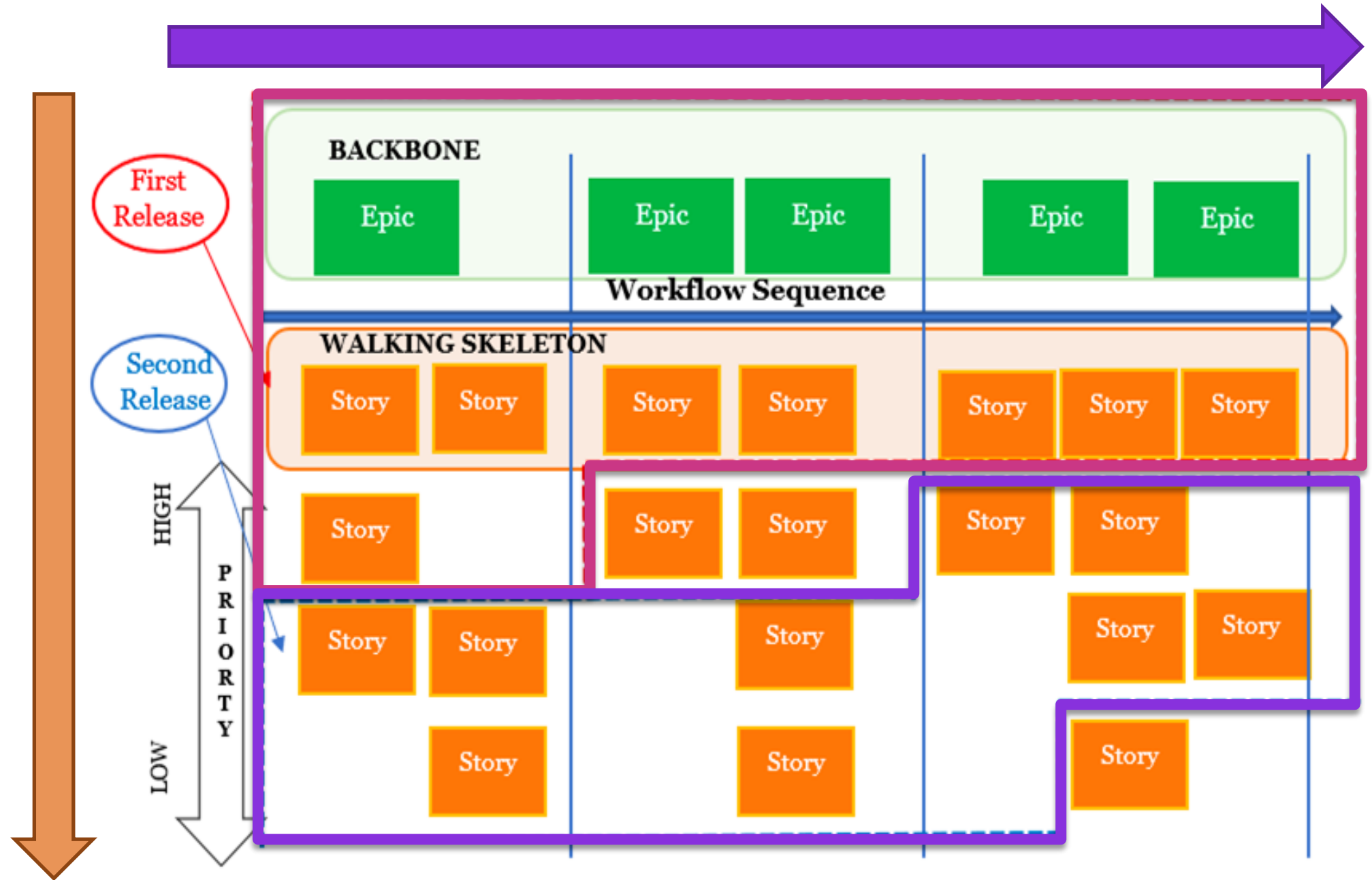**T** **Testable**

You should be able to write tests to verify the software for this story works correctly.

Story Mapping

(Dash, 2020)

Story Mapping

BACKBONE

Epic   Epic   Epic   Epic   Epic

Workflow Sequence

WALKING SKELETON

Story Story   Story Story   Story Story Story

First Release

Second Release

HIGH   PRIORTY   LOW

Story   Story Story   Story Story

Story Story   Story   Story Story

Story   Story   Story

(Dash, 2020)

Wrap Up

References

Dash, S. N. (2020). Graphic illustration of story mapping process [Online Image]. Where Project Managers and Microsoft Meet. https://www.mpug.com/the-big-picture-with-story-map-in-agile-development/

Jeffries, R. (2016). Screenshot of a tweet from Ron Jeffries [Online Image]. Twitter. https://twitter.com/ronjeffries/status/718045486372954112?lang=en