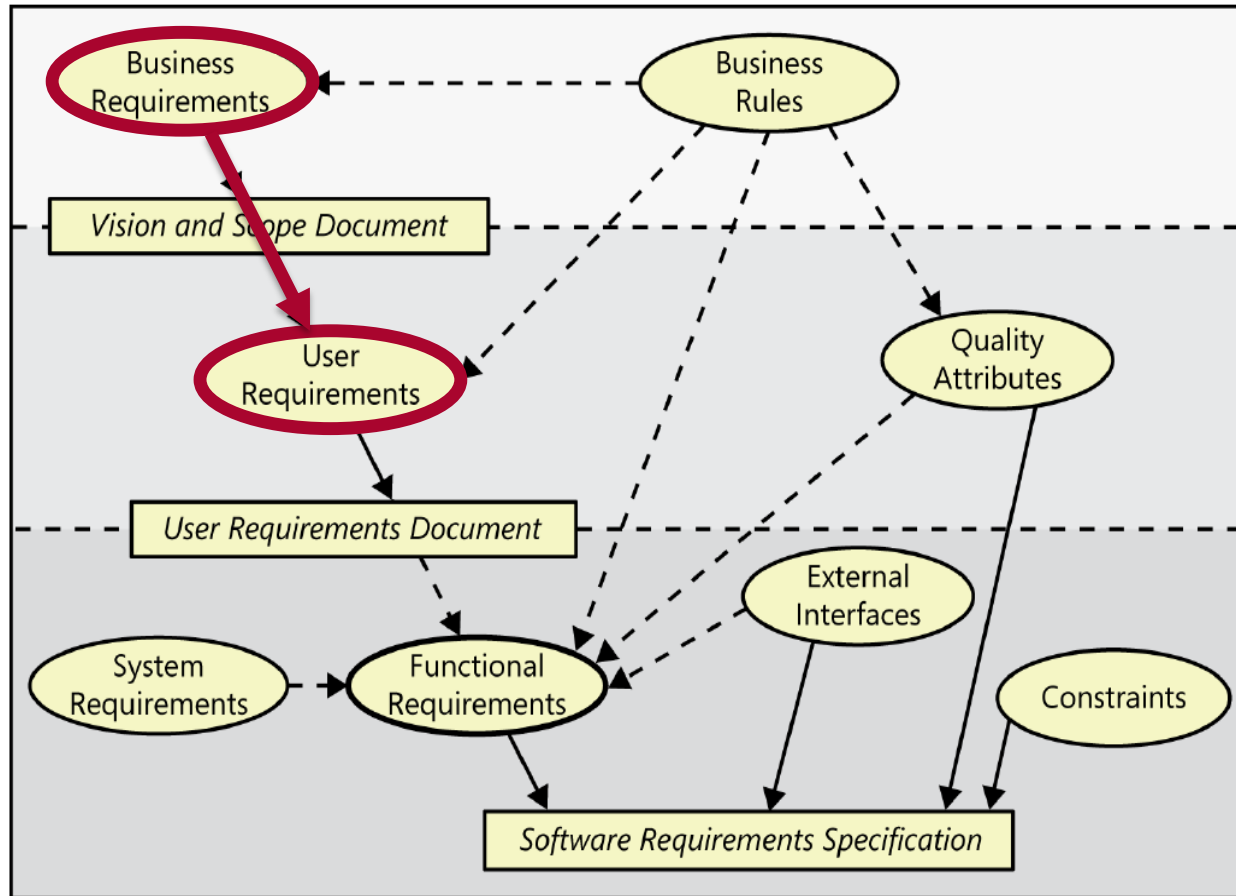


CS445 / ECE451 / CS645 / SE463
Software Requirements Specification & Analysis

User Stories



User Requirements



Airline wants to reduce counter staff costs by 25%

Passengers check in for a flight using an automated system

FIGURE 1-1 Relationships among several types of requirements information. Solid arrows mean "are stored in";

dotted arrows mean "are the origin of" or "influence."

Karl E. Wieggers and Joy Beatty. *Software Requirements, 3ed.* Microsoft Press, 2013.

User Stories

User stories provide a light-weight approach to managing requirements:

- Short statement of new functionality or feature
- Written from the point of view of the user
- Its details are fleshed out **just in time** before the story is placed in the sprint.

User Stories

User stories are an alternative approach to describing use cases.

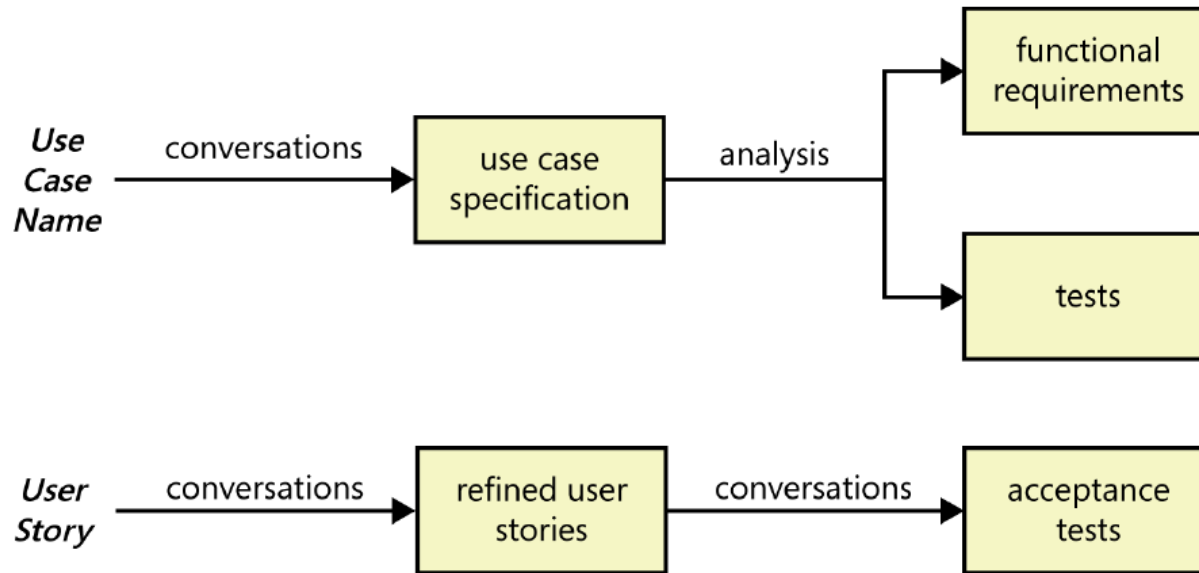


FIGURE 8-1 How user requirements lead to functional requirements and tests with the use case approach and the user story approach.

Karl E. Wieggers and Joy Beatty. *Software Requirements, 3ed.* Microsoft Press, 2013.

Three C's of User Stories

- **Card** - stories are traditionally written on note cards, using a structured syntax:



As a <user/role>, I want <something>, so that <benefit is achieved>

As a vacation traveller, I want to see photos of hotels, so that I can get a sense of the quality of the hotel

As one whose plans have changed, I want to cancel a reservation, so that I do not pay for a trip I do not take

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- **Conversation** – discussions with users or the Product Owner reveal details of the requirements

Where are the details?

- As a user, I can cancel a reservation.
 - Does the user get a full or partial refund?
 - Is the refund to her credit card or is it site credit?
 - How far ahead must the reservation be cancelled?
 - Is that the same for all hotels?
 - For all site visitors? Can frequent travelers cancel later?
 - Is a confirmation provided to the user?
 - How?



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- **Conversation** – discussions with users or the Product Owner reveal details of the requirements
- **Confirmations** – acceptance criteria for determining whether an implementation meets the requirements.

Details as conditions of satisfaction

As a user, I can
cancel a reservation.

- The product owner's conditions of satisfaction can be added to a story
- These are essentially tests

- Verify that a premium member can cancel the same day without a fee.
- Verify that a non-premium member is charged 10% for a same-day cancellation.
- Verify that an email confirmation is sent.
- Verify that the hotel is notified of any cancellation.



ReadYourStory

User Story

As a user, I want to provide my child's photo, child's name, and book dedication, so that I can customize my book.

Conditions of Satisfaction

- (1) Verify that the provided name is alphabetic.
- (2) Insert the name into a sample sentence and confirm result with the user. If not request revised name.
- (3) Verify that the provided dedication is 100 or fewer alphanumeric characters. If not request revised dedication.
- (4) Verify that the photo is of an accepted file type (JPG, PNG, GIF).
- (5) Verify that the photo is a face of a baby in portrait view.
- (6) Verify that the face in the photo is between 2-5cm wide.
- (7) Insert the photo into a sample picture from the book and confirm result with the user. If not request revised photo.

Why User Stories?

- Easy for stakeholders to understand, and to remember.
- Encourage iterative development, with stories being appropriately sized increments for planning
- Delay the elicitation of requirements details until just before development.
- Shift the focus from written requirements documentation to discussion.
- Support participatory elicitation

References

Karl E. Wieggers and Joy Beatty. *Software Requirements, 3ed.*
Microsoft Press, 2013.

- Chapter 8: "Understanding user requirements"



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