Requirements and Design

requirements & design

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- » form a set of requirements?
- » design a product?

- Requirements emphasize the **what** of a product
  » What do my clients need me to develop for the product to succeed?
- Design emphasizes the **how** of the product.
  How will the development team implement the product to satisfy my client's needs?

Quiz

In which software development process model would requirements and design be two completely separate phases?

- A. Sawtooth model,
- B. Spiral model,
- C. Unified process model,
- D. V-Model,
- E. Waterfall model.

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Common situation: form requirements with elements of design in mind

- With modern iterative and parallel development processes, the development team works on both requirements and design simultaneously.
- clients may envision their product with desired design characteristics rather than what their true problem or needs are.

requirements & design

the big picture of requirements

an easy way to understand your product: place requirements in the
context of a product drawing.
- » map out the correctness, consistency, and clarity of requirements.
- » to see whether your requirements fit together as a logical whole.

boundary of requirements & design

focus too early on a design solution
- » overlooking the underlying need, and imposing unnecessary constraints
onto your product
e.g., programming languages

Quiz – What's wrong with the requirement

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» the user submits the request

questions to ask in developing requirements

As you develop requirements, keep these questions in mind.

- Is a solution just a possible option?
- Is the solution the only one possible?
- Is the solution addressing the wrong problem?
- Is the solution just to attract developer interest?
- Is the client more solution focused?

Design often sneaks into requirements in bad ways
» construct requirements to avoid imposing certain design solutions upon the product too early