Project Planning

Software Process

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Learning Objectives

By the end of this video, you will be able to
• Explain what are the key practices in the planning game.
• List common ways of estimating size of a feature.
• Estimate story points for a given feature.
Planning

**customers**
can plan as many iterations as desired, but can change future iterations

**developers**
only worry about one iteration at a time
Planning Game

- Customers write **user stories** (i.e., features)

- Developers **estimate time** (i.e., size) to do each story

- If a story is too big, customers **split** it

- Customers **choose** stories to match the given budget (e.g., 12 weeks)

(Williams, 2013)
Planning Game

- Customers write **user stories** (i.e., features)
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- If a story is too big, customers **split** it
- Customers **choose** stories to match the given budget (e.g., 12 weeks)

**Project velocity:** How much workload to allocate for an iteration?
Project Velocity
A team’s rate of progress based on amount of work done in the previous iteration(s)
Planning Game

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• Developers **estimate time** (i.e., size) to do each story

• If a story is too big, customers **split** it

• Customers **choose** stories to match the given budget (e.g., 12 weeks)
  - **Project velocity:** How much workload to allocate for an iteration?
  - **Priorities:** Which ones to do first?

(Williams, 2013)
Priority

- **High** priority used to form a *minimal working system*

- **Medium** priority used to form a *complete system*

- **Low** priority bells and whistles
Planning Game

• Customers write user stories (i.e., features)

• Developers estimate time (i.e., size) to do each story

• If a story is too big, customers split it

• Customers choose stories to match the given budget (e.g., 12 weeks)
  • Project velocity: How much workload to allocate for an iteration?
  • Priorities: Which ones to do first?
Size Estimation

- **Ideal time**: the amount of time $X$ takes when stripped of all peripheral activities
  - An NBA game’s ideal time: 48 minutes

- **Elapsed time**: the amount of time that passes on the clock to do $X$
  - An NBA game’s elapsed time: 2-2.5 hours

- **Story point**: measurement unit for expressing the overall size of a $X$
Estimate Story Points

• Choose story $S$ of medium size $\Rightarrow$ 5 points

• Estimate other stories relative to story $S$
  • With Fibonacci-like sequence values: 1, 2, 3, 5, 8, 13, 20, 40, 100
Ways to Estimate Story Points

- Expert opinion
- Analogy
- Disaggregation
- Planning poker

(Williams, 2013)
References

The End