



# Experience improves us



# Software Development Methodologies

- Waterfall Model
- Prototype Methodology
- Agile Methodology
- Rapid Application Development
- Dynamic System Development Model Methodology
- Spiral Model
- Extreme Programming Methodology



**Which methodology is better?**



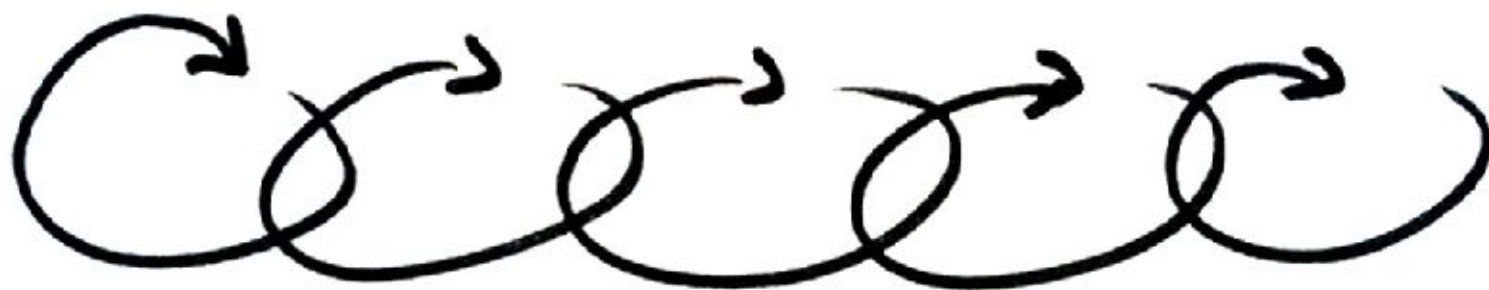
**1. Estimation should be done by team  
not manager**





## 2. Plan the time when product will be released







## 4. Close team collaboration

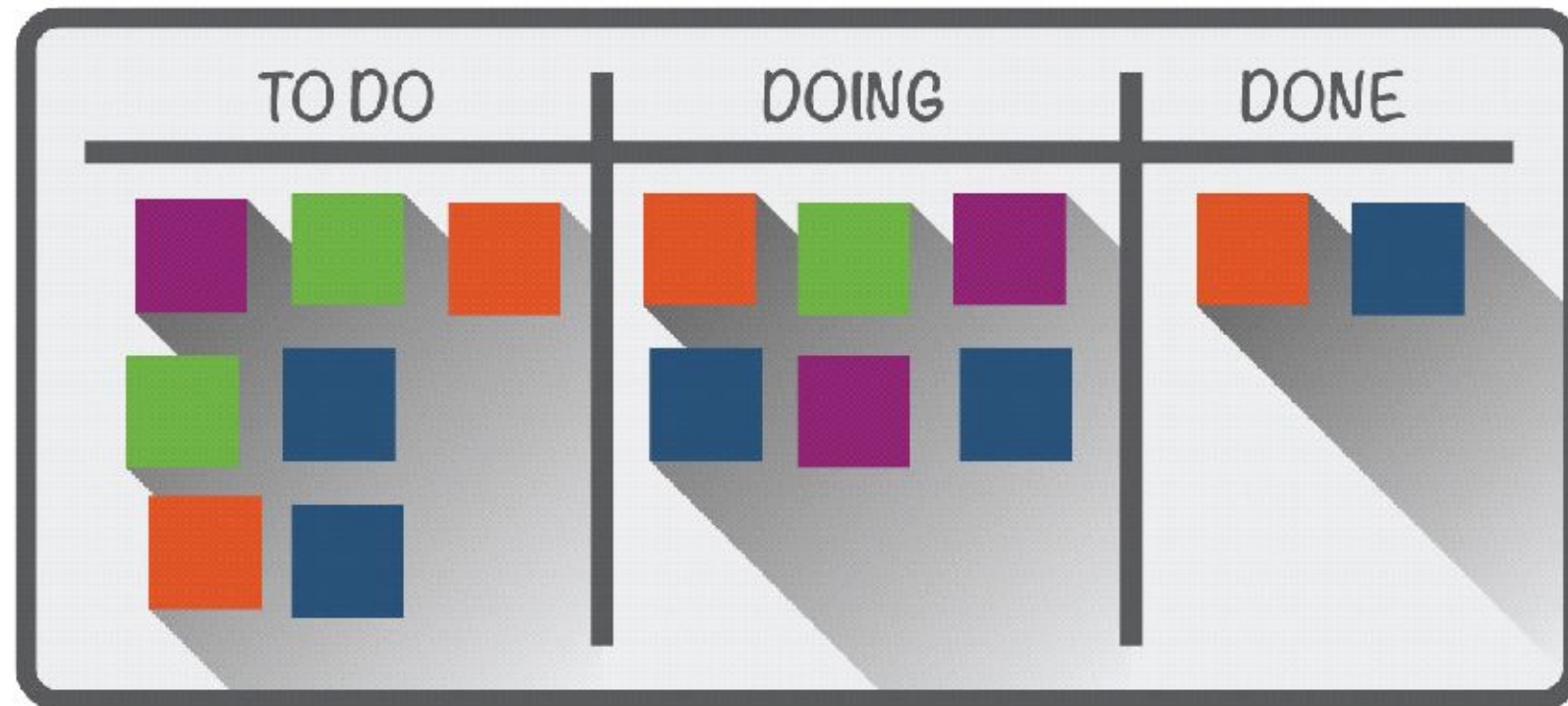


## 5. Add some buffer time





# 7. Document your plan using some tool



## 8. Put priorities and concentrate on the main



PRIORITIES

- 1.
- 2.
- 3.





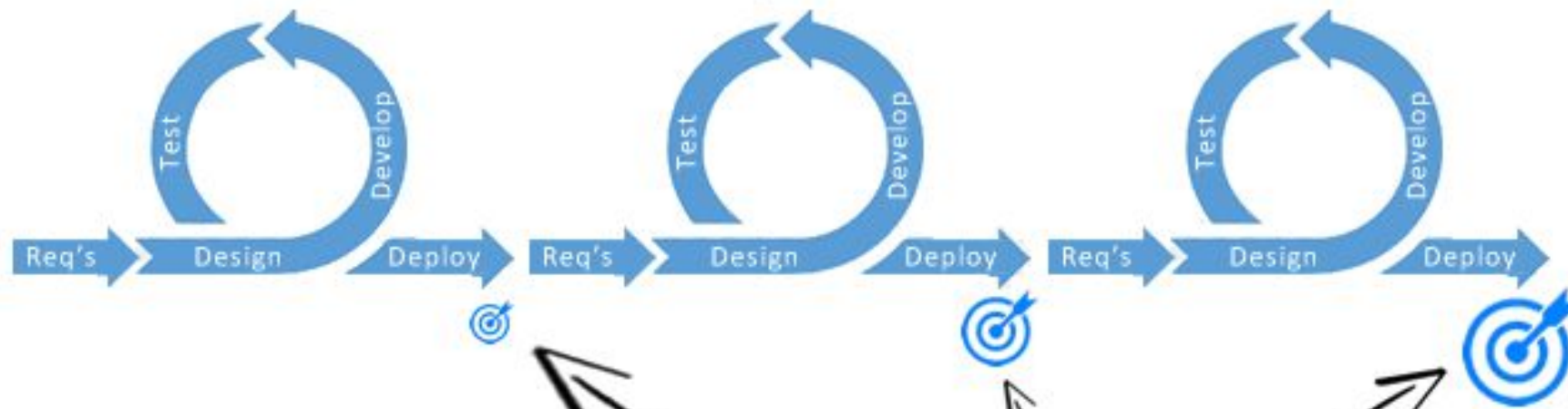


## Waterfall



*Big outcome at end*

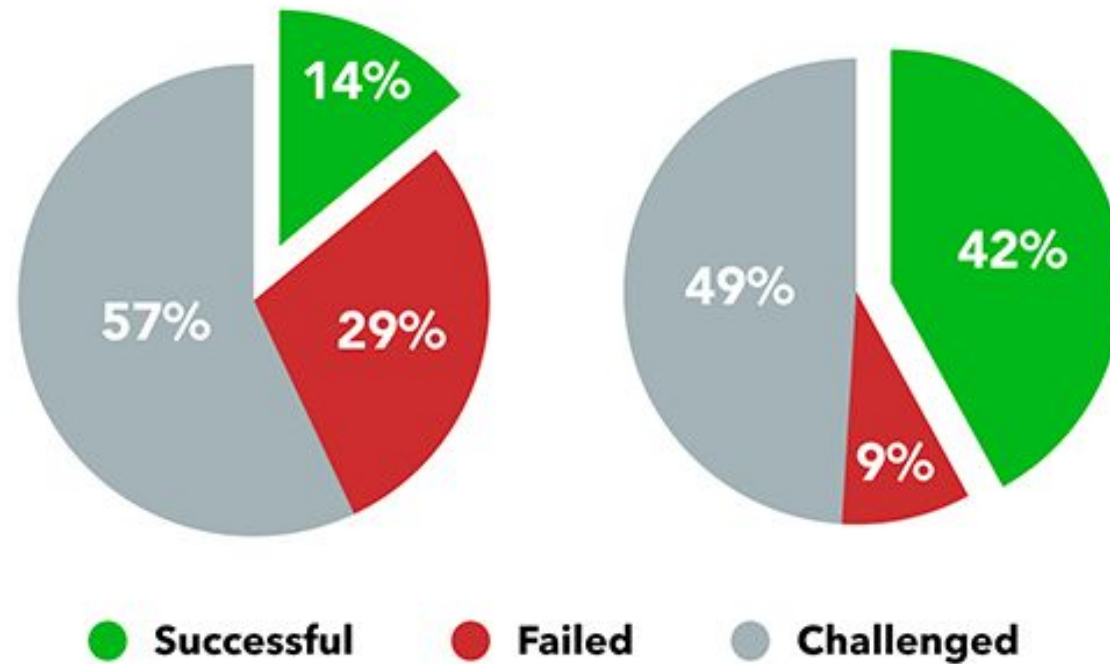
## Agile



*Cumulative outcomes*



### Waterfall vs. agile software delivery success



# The Agile Manifesto – a statement of values

Individuals and  
interactions

over

Process and tools

Working software

over

Comprehensive  
documentation

Customer  
collaboration

over

Contract negotiation

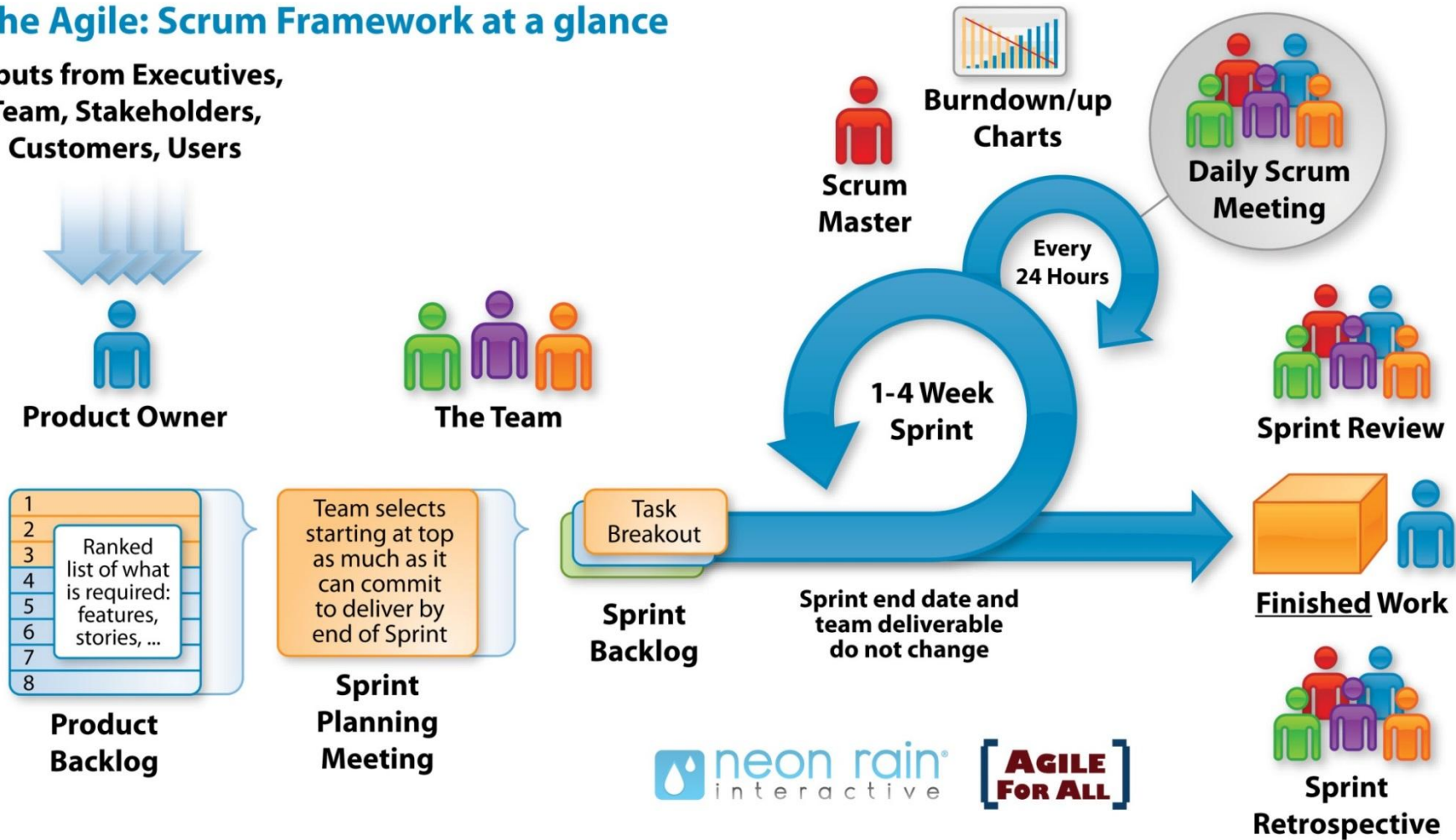
Responding to  
change

over

Following a plan

## The Agile: Scrum Framework at a glance

Inputs from Executives,  
Team, Stakeholders,  
Customers, Users



# • The Scrum Master and The Scrum Team



**Product Owner**



**The Team**



**Scrum  
Master**



- **Clearing up the Product Owner's Role** - Product Owner is not a role, it's a position, name it



**Product Owner**



- **Building the Development Team**



**The Team**



Scrum is a framework for managing and completing complex projects; it is an agile framework that encourages team collaboration and communication. It is a framework for managing and completing complex projects; it is an agile framework that encourages team collaboration and communication.



Scrum  
Master



Scrum Master



Scrum  
Master



**Scrum  
Master**

## Meeting

### *Planning Meeting*

- What is a Product Backlog?
- What can we do?
- Further details?
- Who will do it?
- How long will it take?

### *Daily Standup Meeting*

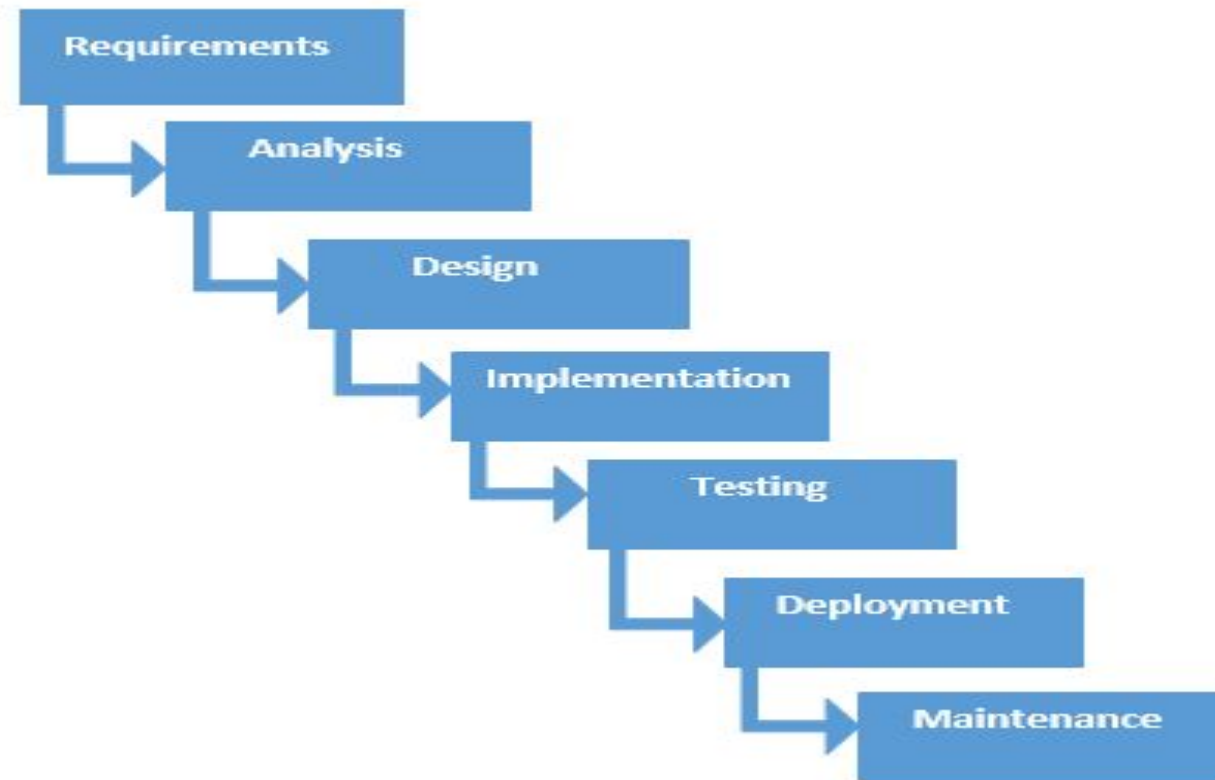
- Daily 15 minutes
- Issues:
  - What have I done?
  - What will I do?
  - What is my problem?

### *Sprint Review*

- For the Product Owner
- For the customers.
- At the end of each sprint

### *Sprint Retrospective*

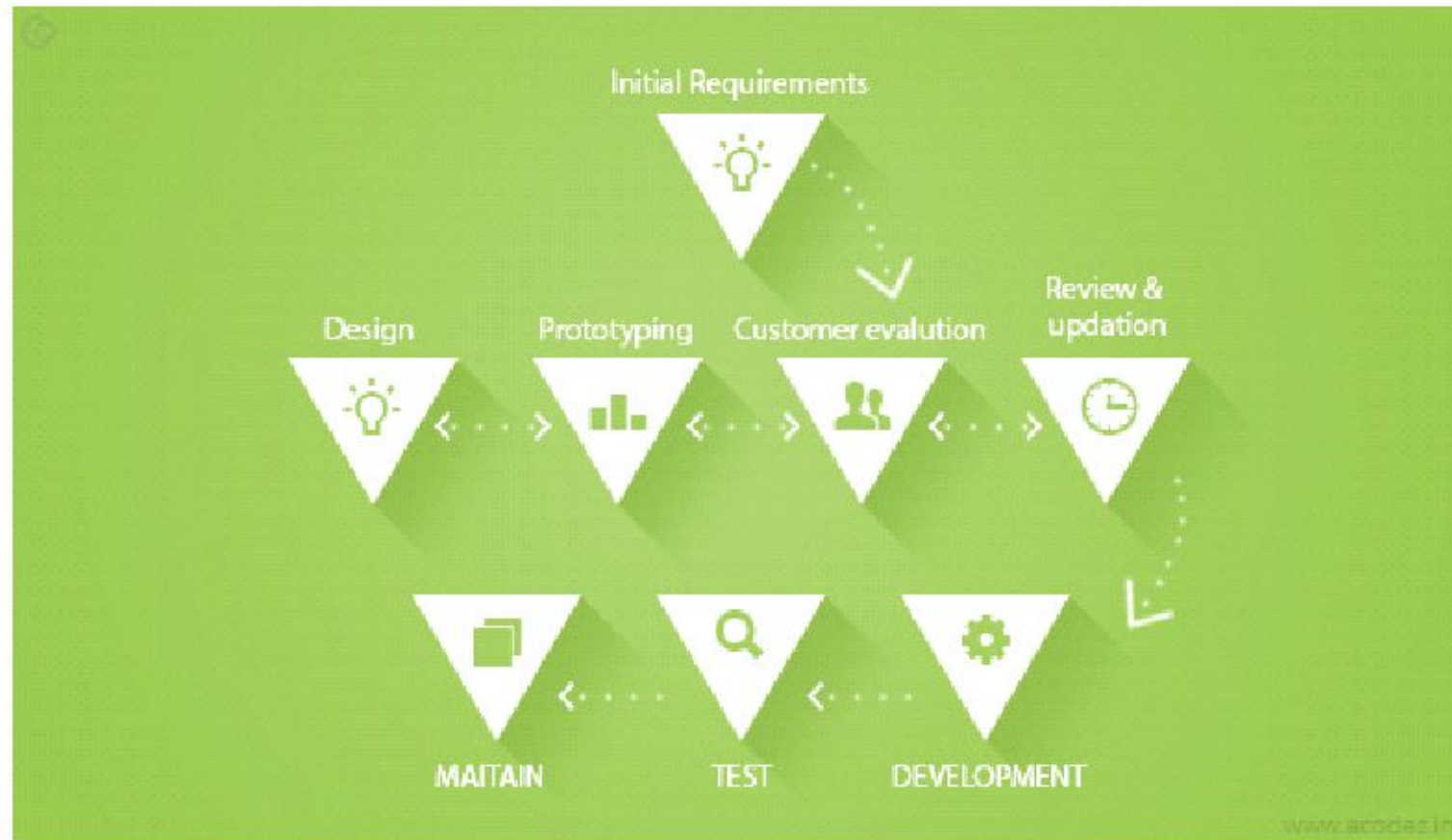
- Analysis of the work done
- At the end of sprint







# Prototype Methodology









More prescriptive

More adaptive



- Architecture Reviewer
- Business Designer
- Business Model Reviewer
- Business Process Analyst
- Capsule Designer
- Change Control Manager
- Code Reviewer
- Configuration Manager
- Course Developer
- Database Designer
- Deployment Manager
- Design Reviewer
- Designer
- Graphic Artist
- Implementer
- Integrator
- Process Engineer
- Project Manager
- Project Reviewer
- Requirements Reviewer
- Requirements Specialist
- Software Architect
- Stakeholder
- System Administrator
- System Analyst
- Technical Writer
- Test Analyst
- Test Designer
- Test Manager
- Tester
- Tool Specialist
- User-Interface Designer
- Architectural Analysis
- Assess Viability of architectural proof-of-concept
- Capsule design
- Class design
- Construct architectural proof-of-concept
- Database design
- Describe distribution
- Describe the run-time architecture
- Design test packages and classes
- Develop design guidelines
- Develop programming guidelines
- Identify design elements
- Identify design mechanisms
- Incorporate design elements
- Business use case realization
- Business use-case model
- Business vision
- Change request
- Configuration audit findings
- Configuration management plan
- Data model
- Deployment model
- Deployment plan
- Design guidelines
- Design model
- Development case
- Development-organization assessment
- End-user support materials
- Glossary
- Implementation model
- Installation artifacts
- Integration build plan
- Issues list
- Iteration assessment
- Iteration plan
- Manual styleguide
- Programming guidelines
- Quality assurance plan
- Reference architecture
- Release notes
- Requirements attributes
- Requirements management plan
- Review record
- Risk list
- Risk management plan
- Software architecture document
- Software development plan
- Software requirements specification
- Stakeholder requests
- Status assessment
- Supplementary business specification
- Supplementary specification
- Target organization assessment
- Test automation architecture
- Test cases

- Whole team
- Coding standard
- TDD
- Collective ownership
- Customer tests
- Pair programming
- Refactoring
- Planning game
- Continuous integration
- Simple design
- Sustainable pace
- Metaphor
- Small releases

- ScrumMaster
- Product Owner
- Team
- Product backlog
- Sprint backlog
- Sprint planning meeting I + II
- Daily Scrum
- Sprint review
- Sprint
- Sprint retrospective
- Sprint
- Definition of Done

- Visualize the workflow
- Limit WIP
- Measure and optimize lead time



# Rational Unified Process Methodology (RUP)



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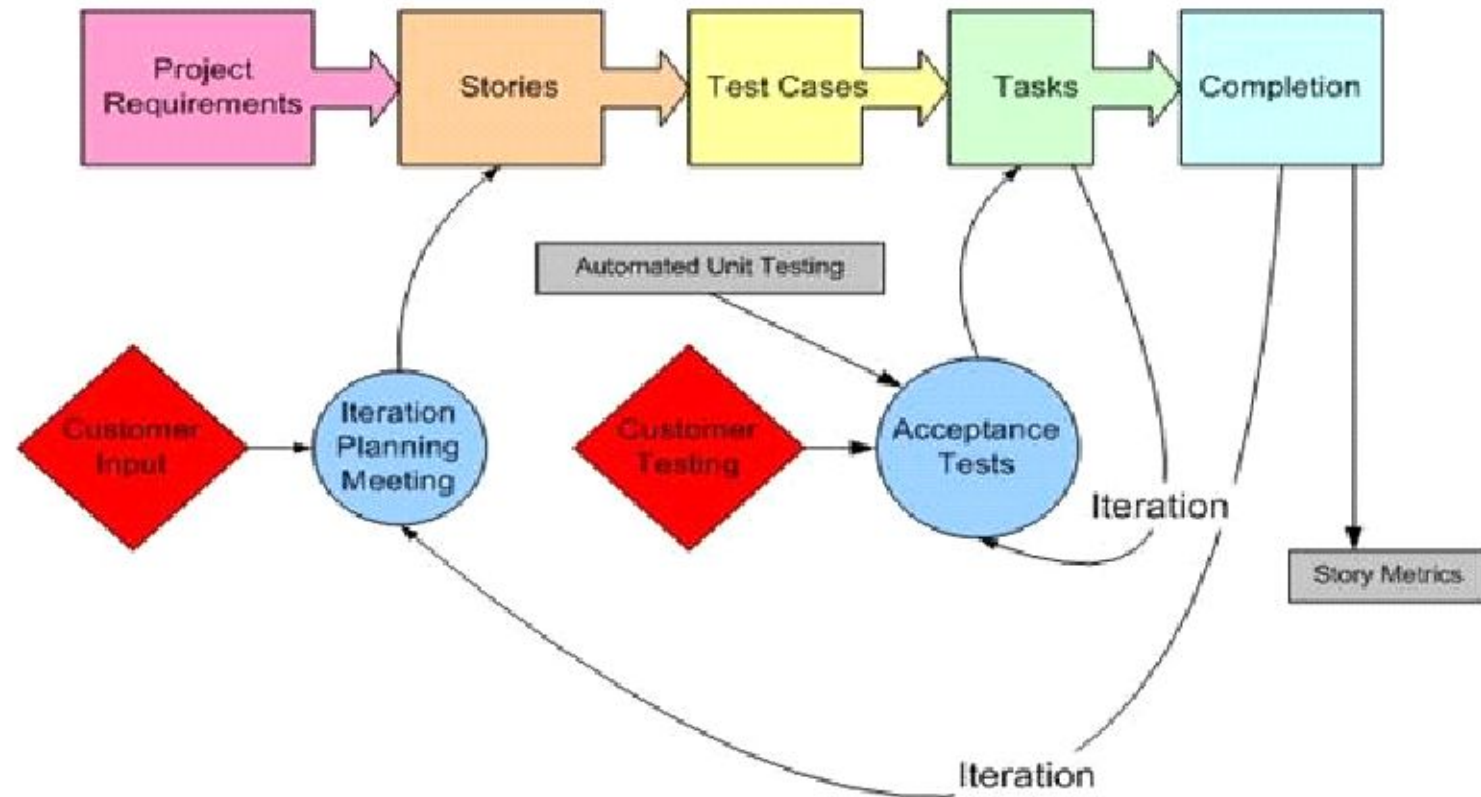






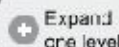
It is chiefly used for crafting software within a very unbalanced atmosphere.

# Extreme Programming Methodology (XP)

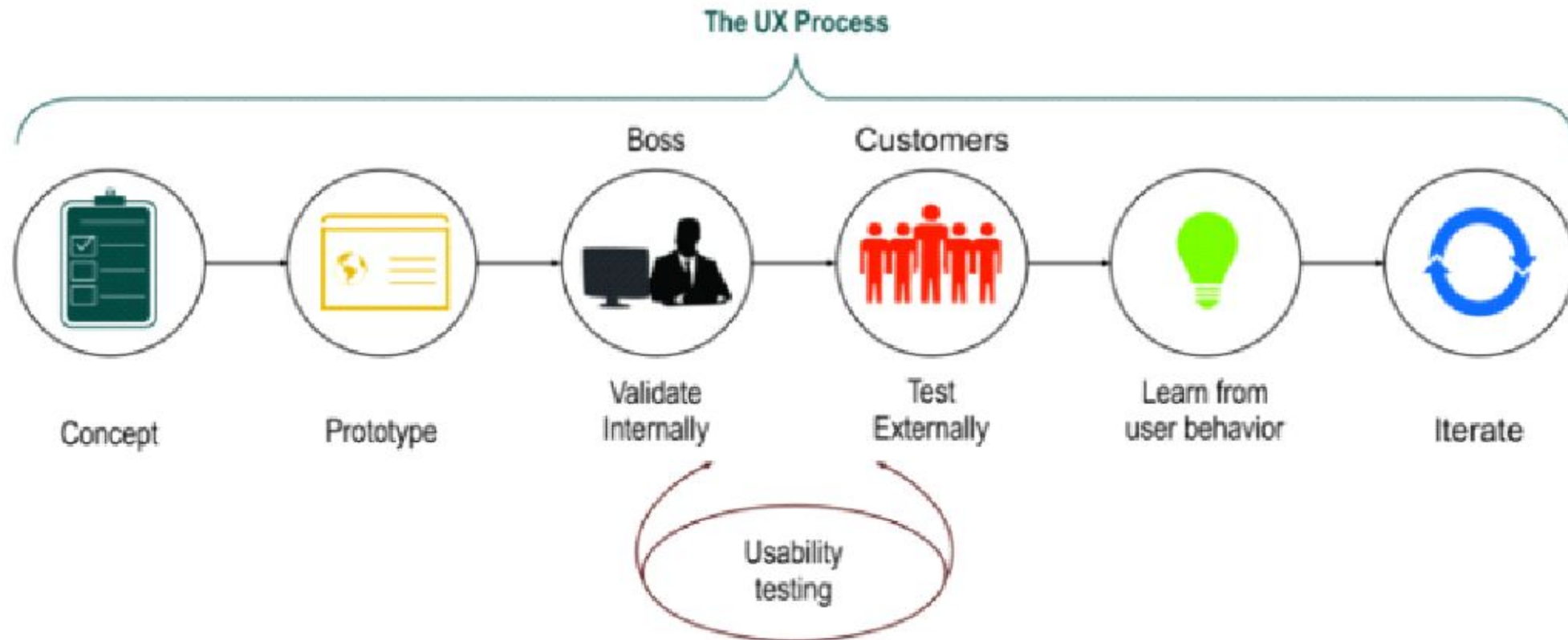








# Lean Development Methodology





- **Edwards Model of Services Requirements**

# Lean Development Methodology







- **Estimation of the effect of the intervention** (1 day, 1



