

Software Development Methodology

Waterfall (раз в 6-12 месяцев)

Stages:

- Planning (Планирование) Ставят задачи
- Analysis (Анализ) - бизнес аналитики формулируют business requirements (use case)
- Requirements (требования) - Business Requirements, Product Requirements, Functional Spec
- Design/Architecture - scalability-масштабируемость
 - units
 - how units work together (связи между юнитами)
- Implementation/Coding/Development - внедрение-кодирование-разработка
 - Альфа - есть внешний вид, но особо не работает
 - Бета - почти все работает, но предстоит много незначительных доработок
 - Гамма-Golden-Release
- Testing (2 недели) - code freeze
- Maintenance (поддержка-сопровождение)

Agile

- 2-3-4 недели цикл (sprint)
- ставится задача на цикл
- мы точно знаем, что эти пара фишек нужнее других на сегодня
- идет параллельная работа, а не последовательная

JOB INTERVIEW QUESTIONS

-----What is your typical work day in Agile Scrum environment-----

1. My morning begins with Stand Up (agile scrum) meeting

- 10-15 minutes
- what was done yesterday
- what we are planning for today

- any blockers we might have

2. After the meeting I go to JIRA and work on my tasks:

- create test cases

- update test cases

- execute test cases

- verify fixed bugs

- automate test cases

- regression testing

- build acceptance testing

- * (report bugs - not assigned in JIRA)

What is Continuous Integration for Agile? -- Devops do the releases/enable continuous integration

1. Developers write the code (every day) and check it into the repository

2. Devops (used to be release/build engineer) creates an automated system for making a build

- compilation

- automated tests are executed against the build (white & black box)

- if passed, the build is uploaded to production server

3. Scheduler (for example Jenkins) is used by devops to setup the order of thing

- 11 pm every day - one build a day

- upon developer (any of ... developers) submitting and update - many builds a day

SERVERS

- development - used by developers (R&D Team)

- QA server - used by QA Team for testing

- production - place where users access the application

What is the difference between Waterfal and Agile development models?

Agile

- lots of things are done in parallel
- 1-2-4 weeks of development cycle (sprint)
- few features to be implemented in one sprint
- fast in responding to user's needs
- we have to know for sure what user needs today
- downloadable (web/mobile apps)

Waterfall

- things are done one by one/stage by stage
- 4-6 months to come up with new version
- many features to be implemented in one development cycle
- slow in responding to user's needs
- we are guessing what users will/might need in 4-6 month
- download, installation, sold off a store shelves (in a box/packaged)

VERSION - an official enumeration created for the public

BUILD - compiled software INTENDED to be used inside the engineering team

RELEASE - build, INTENDED for going to users (Build 12-tr4, Release Candidate)

-----DEFINITIONS-----

Incremental software development - adding small modifications within sprint - opposite to Waterfall

Agile - (one of) Incremental software development methodology

Scrum - agile with emphasis on DAILY communication and FLEXIBLE reassessment of plans

Sprint - work cycle (1-4 weeks) in Agile development methodology

Scrum master - organizes/manages the Scrum process

Product Owner - responsible for requirements and prioritizing them

User Story - format for business requirement/feature description (would need MANY use cases to cover the functionality)

Burn down/up chart - shows how much work is completed/remains to be done

Agile Team - cross-functional team working on the sprint

Sprint/Product backlog - list of tasks identified by the Scrum team to be completed during the Scrum sprint

Jenkins - scheduler application used by devops

JIRA - agile management system (managing tasks) - not the bug reporting application

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