

Revamped Prattle

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What is Prattle?

Welcome to Prattle!

[Connect](#)[Click here for help](#)

Notification

Java based chat
application powered
by websockets

Invites

Personal Messages

Yilin : Connected!! [Tue Apr 21 2020 00:03:35 GMT-0400 (Eastern Daylight Time)]

[Send](#)

System Functionality

Job Quality

Process and Teamwork

Technology Transfer



System Functionality



Functionality tiers

- Tier 1:
 - CRUD Operations on users and groups.
 - Sending messages to individual users and groups.
 - Following and unfollowing users.
 - Group moderators.
- Tier 2:
 - Password authentication.
 - View user details when following them.
 - Incorporation of logging service
- Tier 3:
 - Group invites.
 - Government
 - Timestamps



Meeting the customer's expectations



Users and groups

- Delivered 90% of all requirements.
- Core functionalities and data persistence.
 - CRUD on groups and users.
 - Follow, unfollow users.
 - Adding user to group and removing them by moderator.
 - View user details
 - Search for users
- Could not implement group within a group, icons



Communications

- Satisfied all goals set by team and most of customer's desired requirements
 - Direct messaging
 - Group messaging
 - Invitations to join group.
 - Message queueing
- Couldn't implement translation, message encryption, support for media.



Government

[Connect](#)

Notification

Notification : Find history of user Vinay
Notification : From: Vinay To: Arvind Content: Connected!!
From: Vinay To: Vinay Content: Connected!!
From: Vinay To: Arvind Content: Hi bro!
From: Vinay To: Arvind Content: The password is abcxzy, don't tell the government
From: Vinay To: Arvind Content: User Packarts has been created!
From: Vinay To: Vinay Content: User Packarts has been created!

[Invites](#)[Personal Messages](#)

gov : Connected!! [Mon Apr 20 2020 23:17:12 GMT-0400 (Eastern Daylight Time)]



Meeting team goals

- Exceeded expectations set by team initially
- Focused on perfecting tasks at hand.
- Tested thoroughly



Will customer like the product?

- Useful and user friendly.
- Easy to use
- Fault tolerant
- All activity is logged



Job Quality

Test coverage reports

IDE plugins

Quality gate reports



Quality measurement

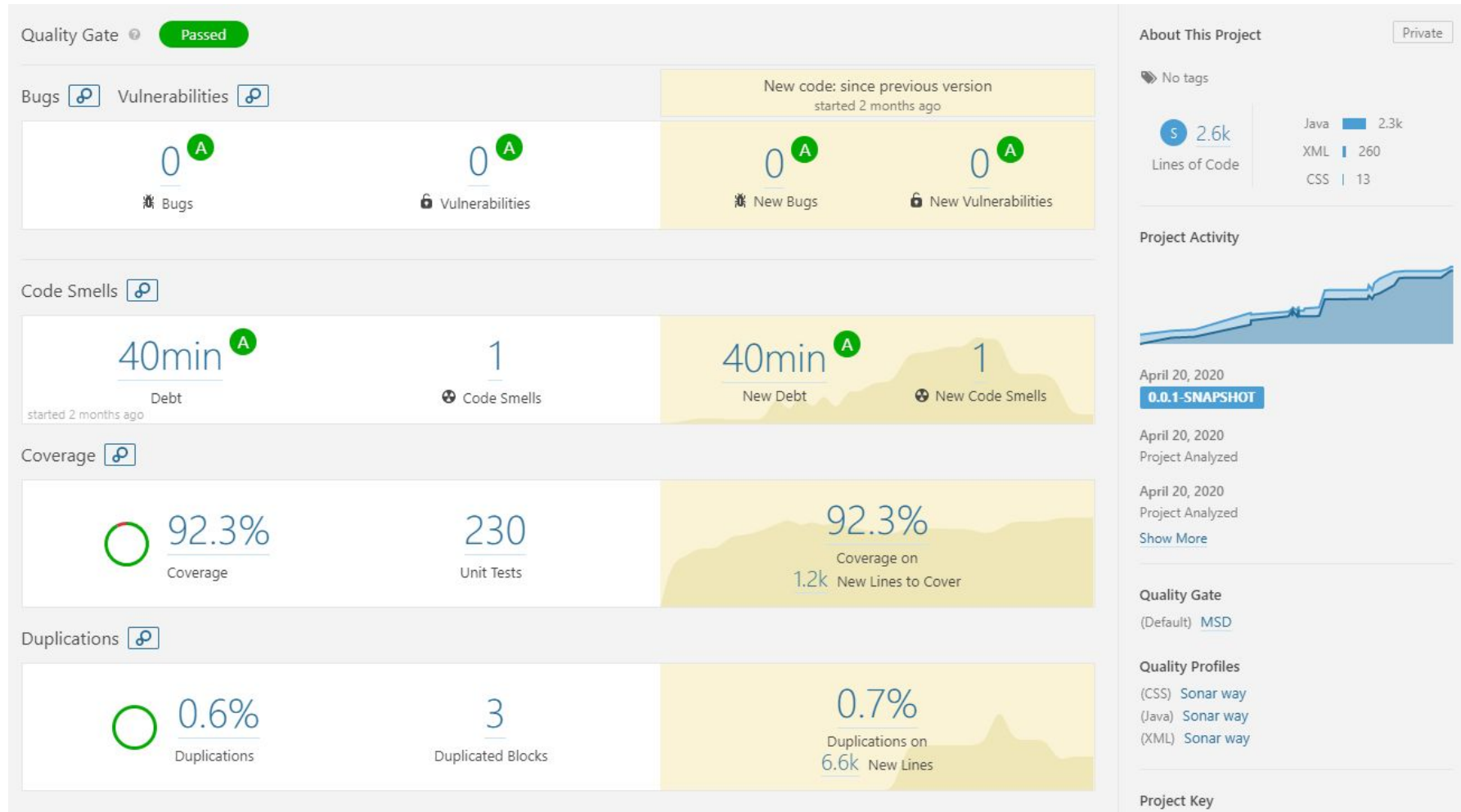
Jenkins CI/CD

Sonarlint smells and issues

Sonarqube quality gates



Sonarqube report

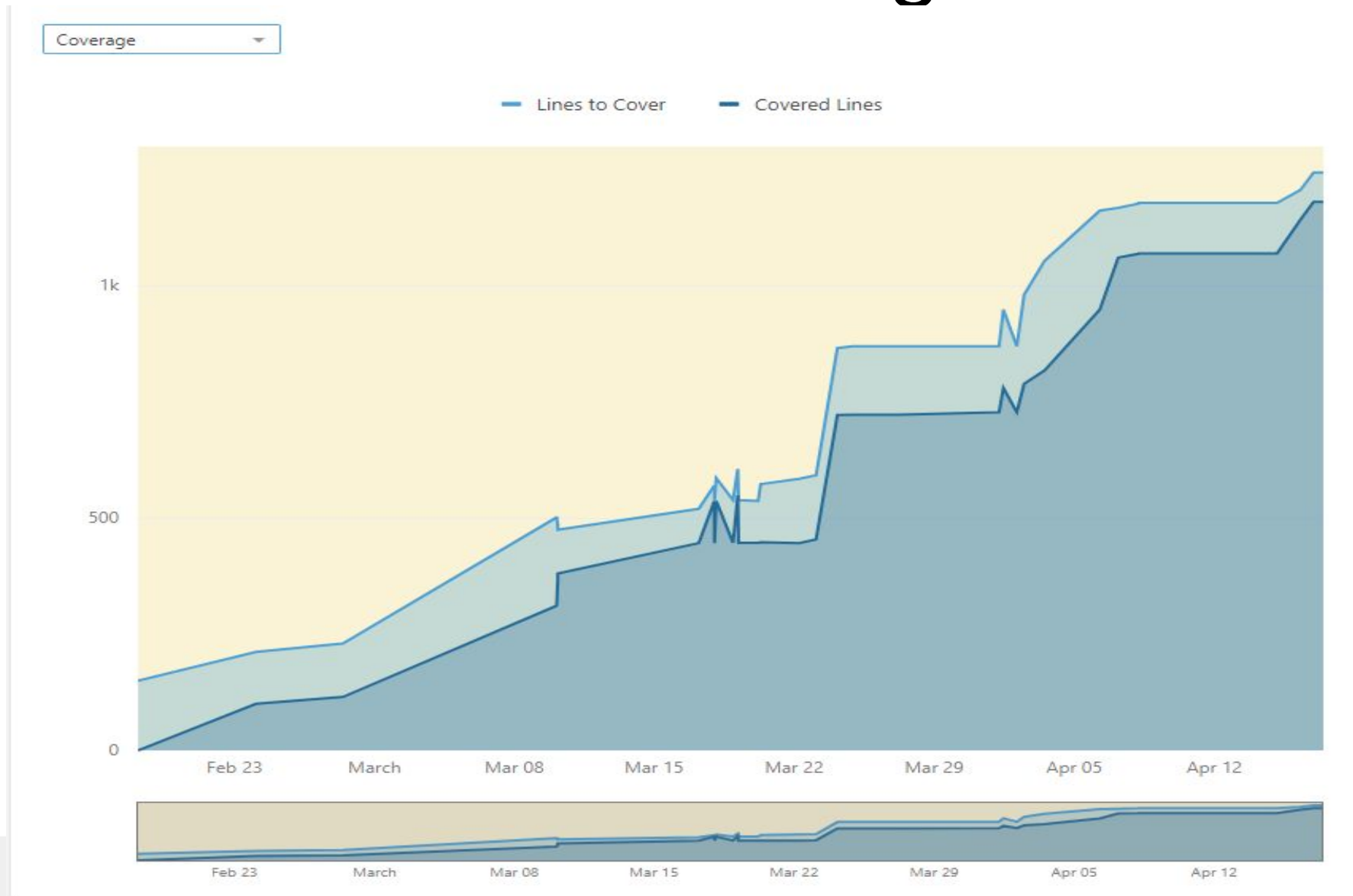


Quality improvement

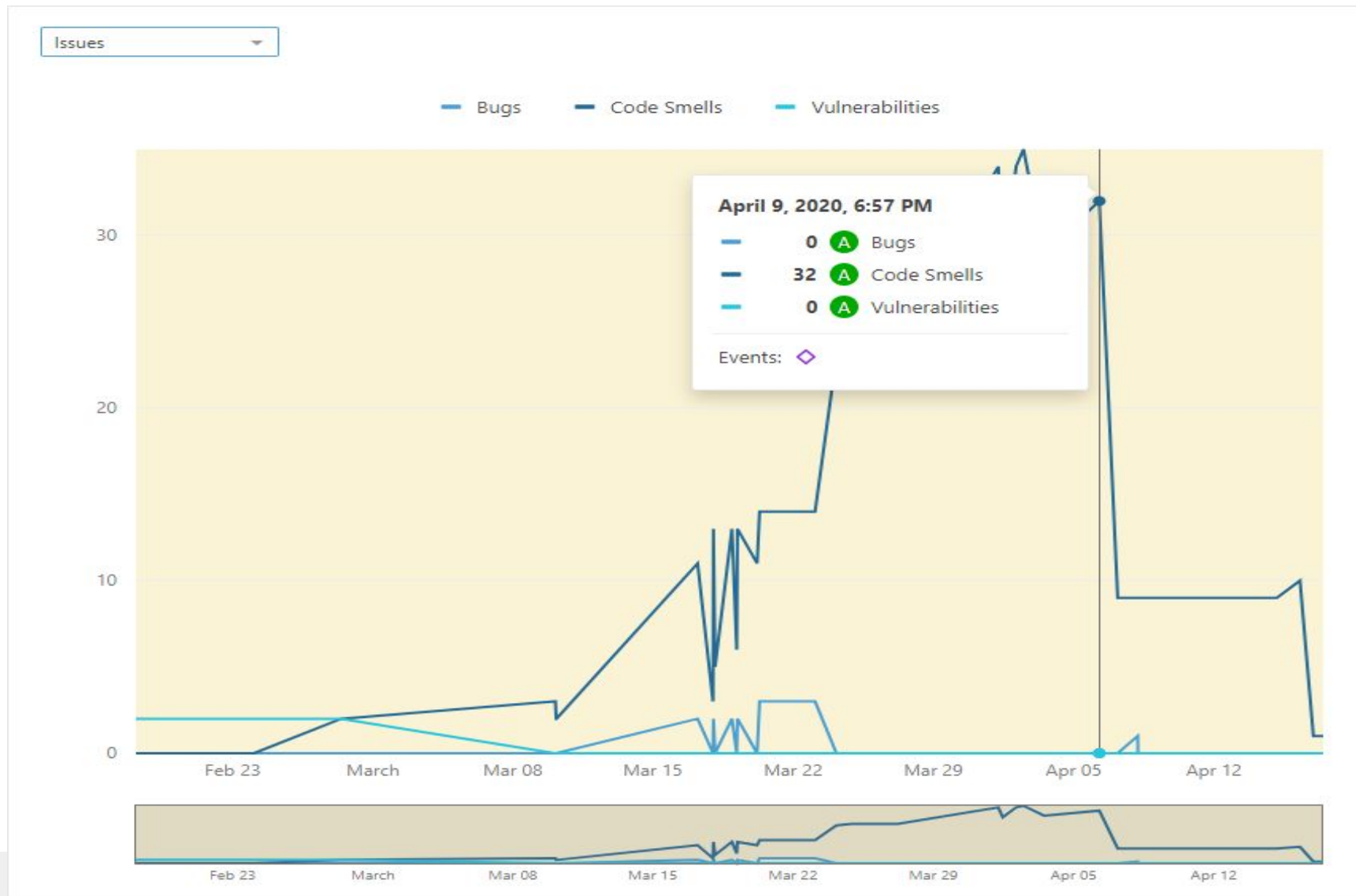
- From 80% test coverage initially to 92% in the end
- From 30+ code smells to just 1 code smell issue in the end



Test coverage



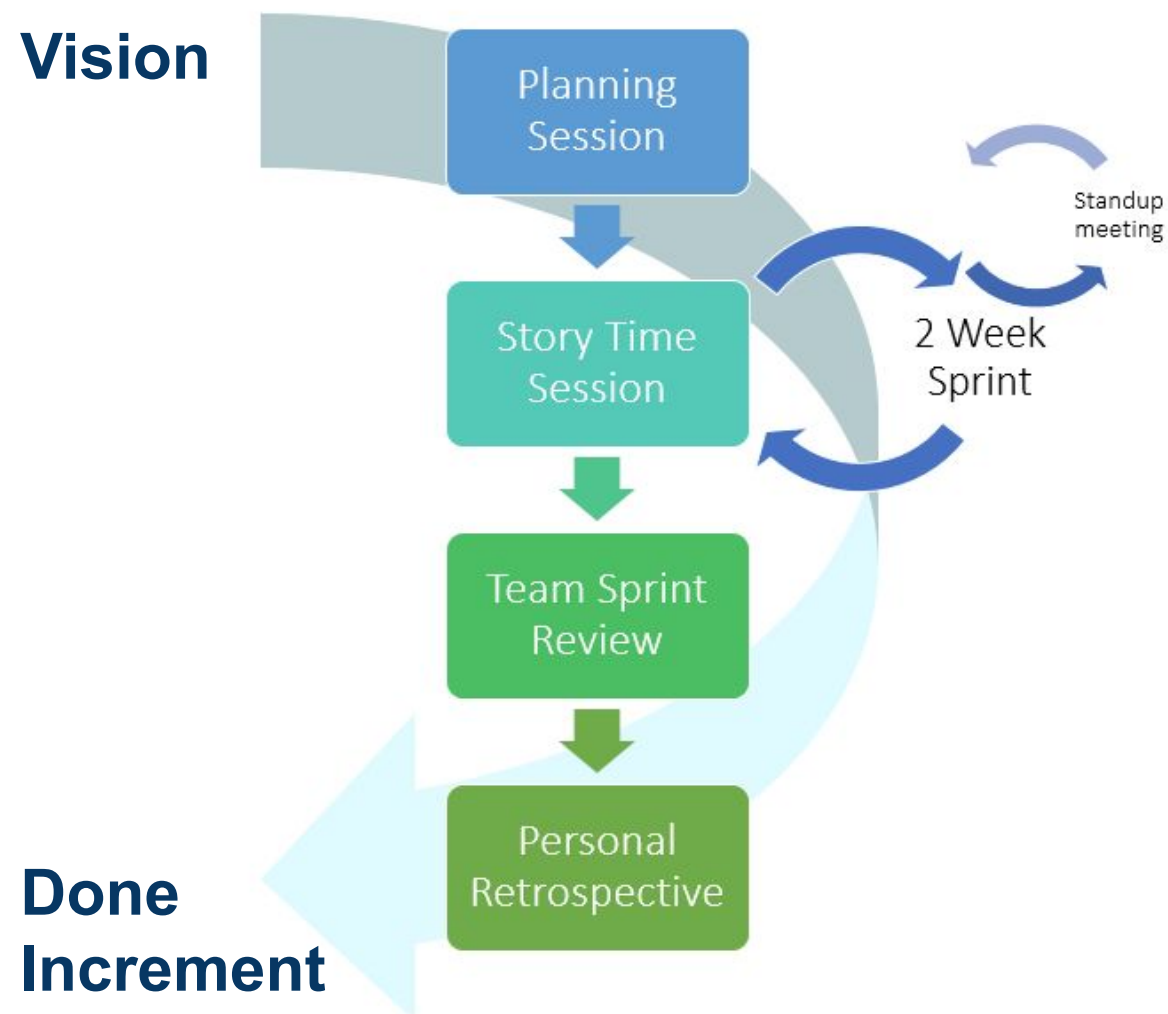
Code issues



Process and Teamwork

SCRUM Master

- Sprint 1 : Arvind
- Sprint 2 : Chuhan
- Sprint 3 : Yilin
- Sprint 4 : Vinay



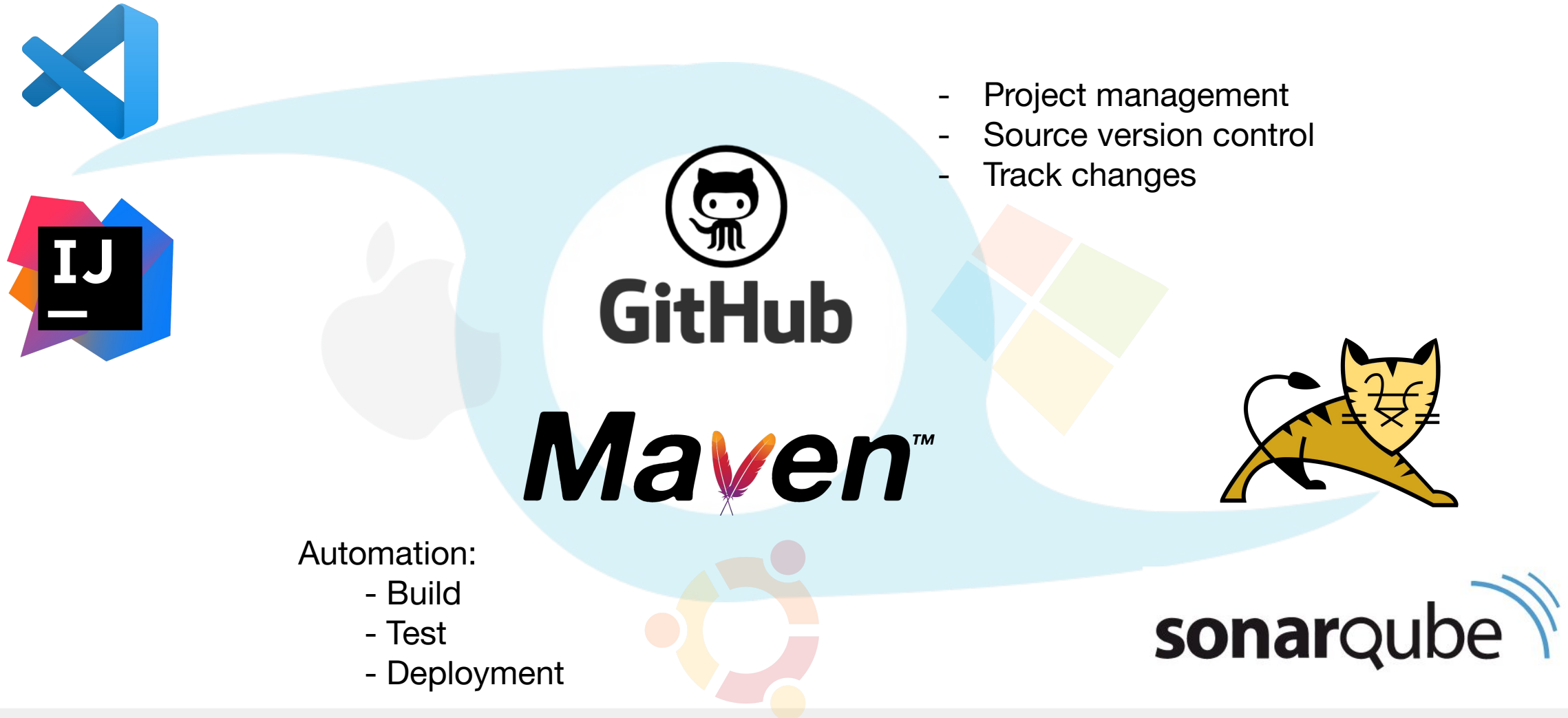
Process and Teamwork

A variety of softwares were used for communication.

- 15 meetings with at least 3 team members.
- Pair debugging/programming
- Daily communication on WhatsApp
- Collaborate on Google Docs



Process and Teamwork



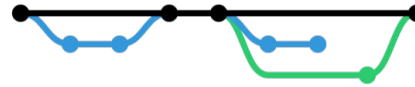
Process and Teamwork

Github network graph reveals increasing team development activities. Everyone contributed a lot.

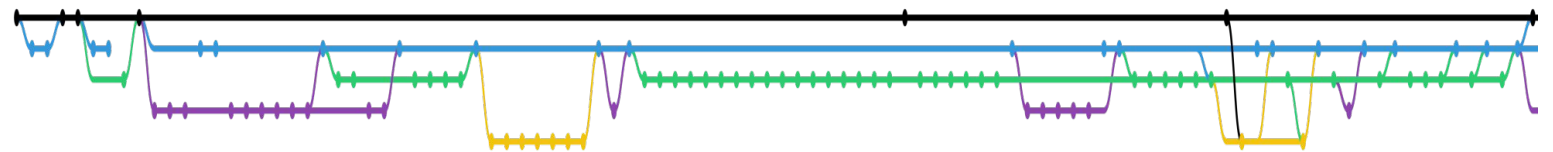
Branch Strategy:

- 1 master branch
- 1 develop branch
- many feature branches

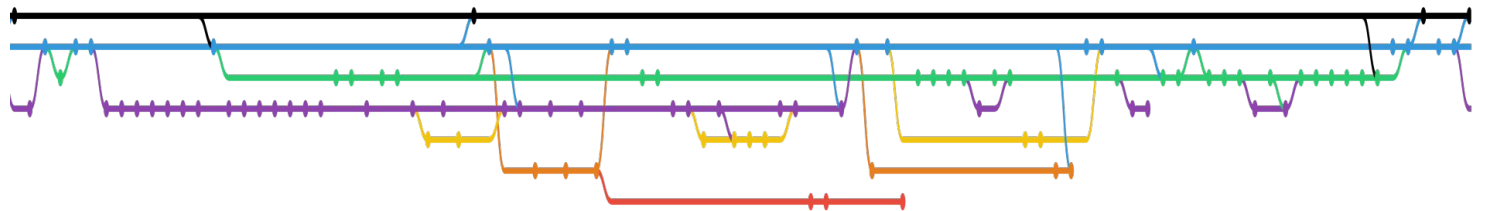
Sprint 1:



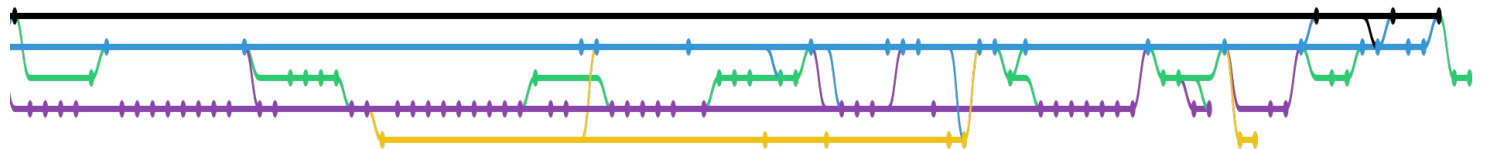
Sprint 2:



Sprint 3:



Sprint 4:



Process and Teamwork

Github issues and milestones are used to manage story points and sprints. It reveals that the biggest challenge is the refactoring of a complicated method. It took us about 2 sprints.

Refactor should be done whenever and wherever code needs to be cleaned up - by whoever.
-- Martin Fowler

The screenshot shows a GitHub repository page for 'cs5500-fse / team-8-SP20' (Private). The page includes navigation tabs for Code, Issues (0), Pull requests (0), Projects (1), Wiki, and Insights. Below these are tabs for Labels and Milestones, with a 'New milestone' button. The Milestones section displays four milestones, each with a progress bar and summary:

Sprint	Status	Open	Closed
Sprint 4	100% complete	0	5
Sprint 3	100% complete	0	19
Sprint 1	100% complete	0	3
Sprint 2	100% complete	0	21



Technology Transfer

- Why is this software ready to hand over to client?
 - Deployed
 - Intuitive UI/UX
 - Rich features
 - Amazing code quality



Intuitive UI/UX

Welcome to Prattle!

Jack

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Connect

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Notification

Notification : Group a has been created
Notification : Group NEU has been created

[Invites](#)

[Personal Messages](#)

[Group NEU](#)

[Group a](#)

Jack : Connected!! [Sat Apr 18 2020 21:17:22 GMT-0400 (Eastern Daylight Time)]

Message

Send



Rich set of Features

- Group message
- Private message
- Government wiretapping(Compliance to CALEA)

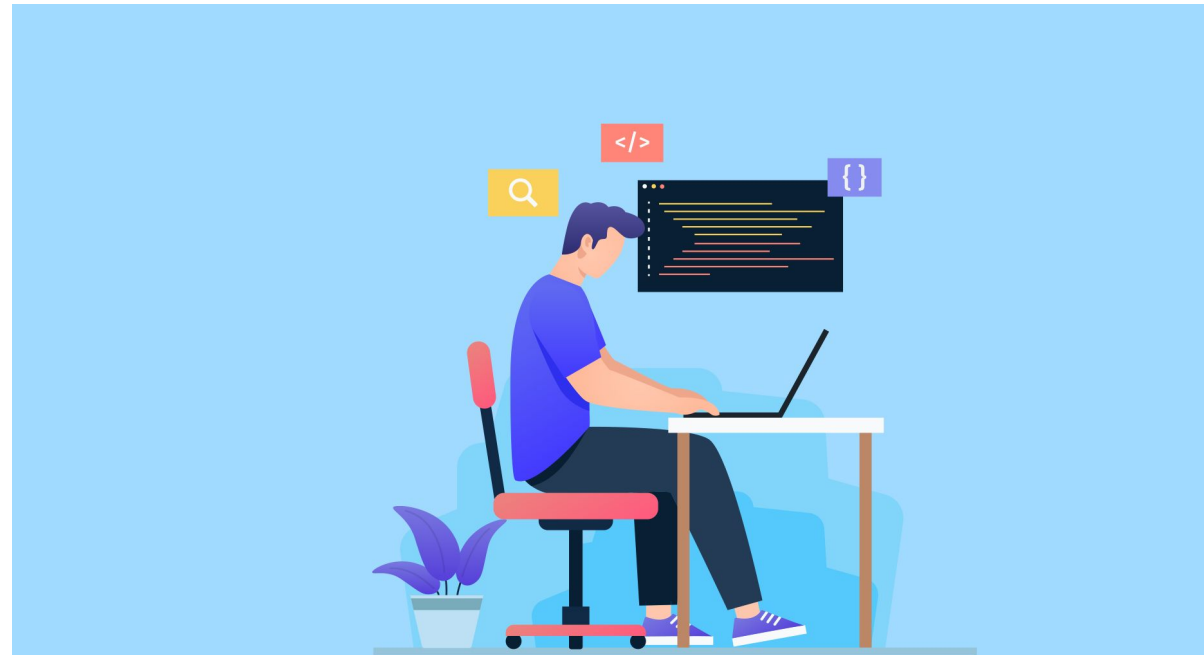
Send:

- "\createuser [User name]" to create a user
- "\updateuser [User name]" to update a user
- "\followuser [User name]" to follow a user
- "\deleteuser [User name]" to delete a user
- "\unfollowuser [User name]" to unfollow a user
- "\creategroup [Group name]" to create group
- "\inviteuser [Group name] [User name]" to invite user to group
- "[Group name]/: [Message body]" to send group message
- "[User name]:: [Message body]" to send private message to user



Amazing Code Quality

- Thoroughly tested with Junit.
- Following S.O.L.I.D. OO design pattern.
- Used reliable open-sourced tech stack, MySQL, Tomcat, Java, JQuery etc.
- Well-Documented.



Technology Transfer: Next Step

- Further improve UX
 - Auto complete command and group names
 - Mute/block user
 - Recall messages
- More functionalities
 - Support for multimedia message type
 - End-to-end Message encryption

