



Slack++ Team 207

Venkatesh Koka
Prajakta Rodrigues
Omar Tuffaha
Sean Ylescupidez



Project Inception

- Prattle & Chatter
 - Broadcast to all
 - Barebones Instant Messaging
- Facilitate Communication among large number of users with additional unique functionality



Supported Functionality

- Login & Registration
- Group Messaging
- Moderator Control
- Direct Messaging
- Notifications
- CALEA Support
- Translations



Login and Registration

- Persisting Accounts
- Secure Accounts
 - Encrypted Passwords
 - BCrypt



Messaging

- Messages Persist through database
- Message Queueing
- Message Recall

Group Messaging

- User-defined groups
- Added Security

Moderator Control

- Control & Manage Members
- Leave and 86

Direct Messaging

- One-on-one
- Friends



Notifications

- Be alerted when something requires attention
 - Unread messages, invites, friend requests
- Automatic or On-demand
- Keep track of Read or Unread
- Do Not Disturb Mode



CALEA Compliance

- Special accounts for Authorities
- Unique Wiretap Command
 - Monitor all messages that involves a user
 - Specify Timeframe
 - Group, Direct, Recalled



Additional Features

- In-app Translations
 - Translate messages to another language
 - Google Cloud API
 - Autodetects starting language
- Parental Controls
 - Censors inappropriate language
 - Controlled by Users


```

/help
Slackbot: Available COMMANDS:
/parentalcontrol You can set the parental control mode on to filter content
/friend Friends the user with the given handle. Parameters: User to friend.
/invites Check all the group invites received.
/invite Send out group invite to user. Parameters : handle, groupName.
/groups Print out the names of each Group you are a member of.
/search Search for users starting with similar search term.Parameters: search term.
/group Change your current chat room to the specified Group. Parameters: group name, (if locked) password.
/kick As the moderator of your active group, kick a member from your group. Parameters: handle of the user to kick.
/dnd Sets Do not disturb mode and no notifications will be shown. Parameters: true.
/recall Recalls a message based on the given number. Parameters: the number of most recently sent message to recall.
/accept Accepts group invite request. Parameters : group name.
/friends Print out the names of all of my friends.
/translate You can translate any sentence. Parameters: language to translate it to.
/dm Start a DM with the given user. Parameters: user id.
/circle Print out the handles of the active users on the server.
/help Lists all of the available commands.
/dom Removes a user's moderatorship.
/sentininvites Displays all the group invites sent by you to other users.
/addmoderator Adds the given user as a moderator.Parameters: User to add as a moderator.
/creategroup Create a group with the given name.Parameters: Group name, (optional) password.
/groupmembers Print out the handles of the users in a group.
/notification Shows recent notifications.
/86 As the moderator, destroys your current active group.
/lang Find all the available languages which you can use /translate on.

```



Technology

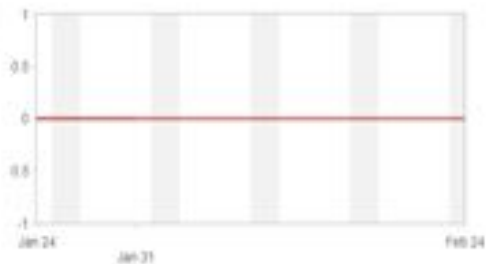
- Backend: Java 8, JDBC
- Testing: JUnit 4
- CI/CD: Jenkins
- Build Automation: Maven
- Quality: SonarQube
- Cloud Hosting: Amazon Web Services
 - EC2
 - MySQL RDS



Sprint Breakdown

- Sprint 1: Design and Testing
 - UML Diagrams
 - Merge Prattle to Master
- Sprint 2: Foundational Architecture & Database
 - Group Messaging
 - Database Setup
 - Elastic Cloud Compute
 - Amazon RDS
 - Direct Messaging

Sprint 1



Status Report

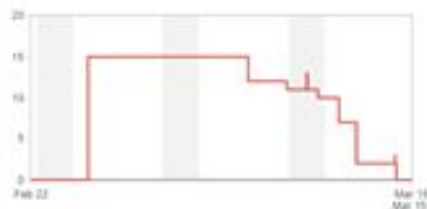
* Issue added to sprint after start time

Completed Issues

[View in Issue navigator](#)

| Key | Summary | Issue Type | Priority | Status | Story Points (-) |
|----------------|--------------------------------|--|----------|-------------------|------------------|
| MSD0075P19-1 * | Use Case Diagram Creation | <input checked="" type="checkbox"/> Task | ↑ Medium | DONE | - |
| MSD0075P19-2 * | Write up Software Requirements | <input checked="" type="checkbox"/> Task | ↑ Medium | DONE | - |
| MSD0075P19-3 * | Unit testing | <input checked="" type="checkbox"/> Task | ↑ Medium | DONE | - |
| MSD0075P19-4 * | Class Diagrams creation | <input checked="" type="checkbox"/> Task | ↑ Medium | DONE | - |

Sprint 2



Status Report

* Issue added to sprint after start time

Completed Issues

[View in Issue navigator](#)

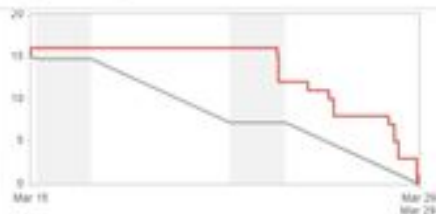
| Key | Summary | Issue Type | Priority | Status | Story Points (- ... 19) |
|------------------|---|------------|----------|--------|-------------------------|
| MSD2075SP19-6 * | Display Active Users | Story | Medium | DONE | ... 1 |
| MSD2075SP19-7 * | Set up Deployment to AWS | Story | Medium | DONE | ... 3 |
| MSD2075SP19-8 * | Database EER Diagram | Story | Medium | DONE | ... 1 |
| MSD2075SP19-9 * | Set up local database | Story | Medium | DONE | ... 2 |
| MSD2075SP19-10 * | Set up production level database | Story | Medium | DONE | ... 1 |
| MSD2075SP19-11 * | Create and Join groups | Story | Medium | DONE | ... 5 |
| MSD2075SP19-34 * | Documentation of Setting up Database | Story | Medium | DONE | ... 1 |
| MSD2075SP19-37 * | Direct Messaging Between Two Users | Story | Medium | DONE | ... 2 |
| MSD2075SP19-40 * | Failing tests on Maven, but not in IntelliJ | Bug | High | DONE | ... 2 |
| MSD2075SP19-41 * | Help Command | Story | Medium | DONE | ... 1 |



Sprint Breakdown

- Sprint 3: Communication Requirements
 - Moderator abilities
 - Friending Users
 - Notifications
- Sprint 4: Additional Features
 - Additional Moderator Capabilities
 - Search & Recall
 - Refactoring
 - Do not Disturb
 - Translations
 - Parental Controls

Sprint 3



Status Report

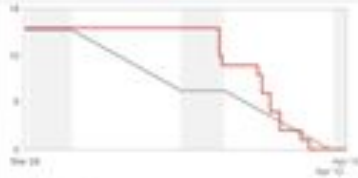
* Issue added to sprint after start time

Completed Issues

[View in Issue navigator](#)

| Key | Summary | Issue Type | Priority | Status | Story Points (15 -- 16) |
|-----------------|---------------------------------------|------------|----------|--------|-------------------------|
| MSD007SP19-15 | Group Moderator | Story | ↑ Medium | DONE | 1 |
| MSD007SP19-17 | Group inviting | Story | ↑ Medium | DONE | 2 |
| MSD007SP19-18 | Kicking group members | Story | ↑ Medium | DONE | 1 |
| MSD007SP19-19 | Freinding Users | Story | ↑ Medium | DONE | 2 |
| MSD007SP19-26 | Save Messages to Database | Story | ↑ Medium | DONE | 2 |
| MSD007SP19-38 * | Add userid to Message | Story | ↑ Medium | DONE | -- 1 |
| MSD007SP19-43 | Notifications Architecture | Story | ↑ Medium | DONE | 3 |
| MSD007SP19-44 | Translations | Story | ↑ Medium | DONE | 1 |
| MSD007SP19-45 | Update DMs to work with DB | Story | ↑ Medium | DONE | 2 |
| MSD007SP19-46 | Update Group Messages to work with DB | Story | ↑ Medium | DONE | 1 |
| MSD007SP19-49 * | Tests issues with IMConnection | Bug | ↑ Medium | DONE | - |

Sprint 4



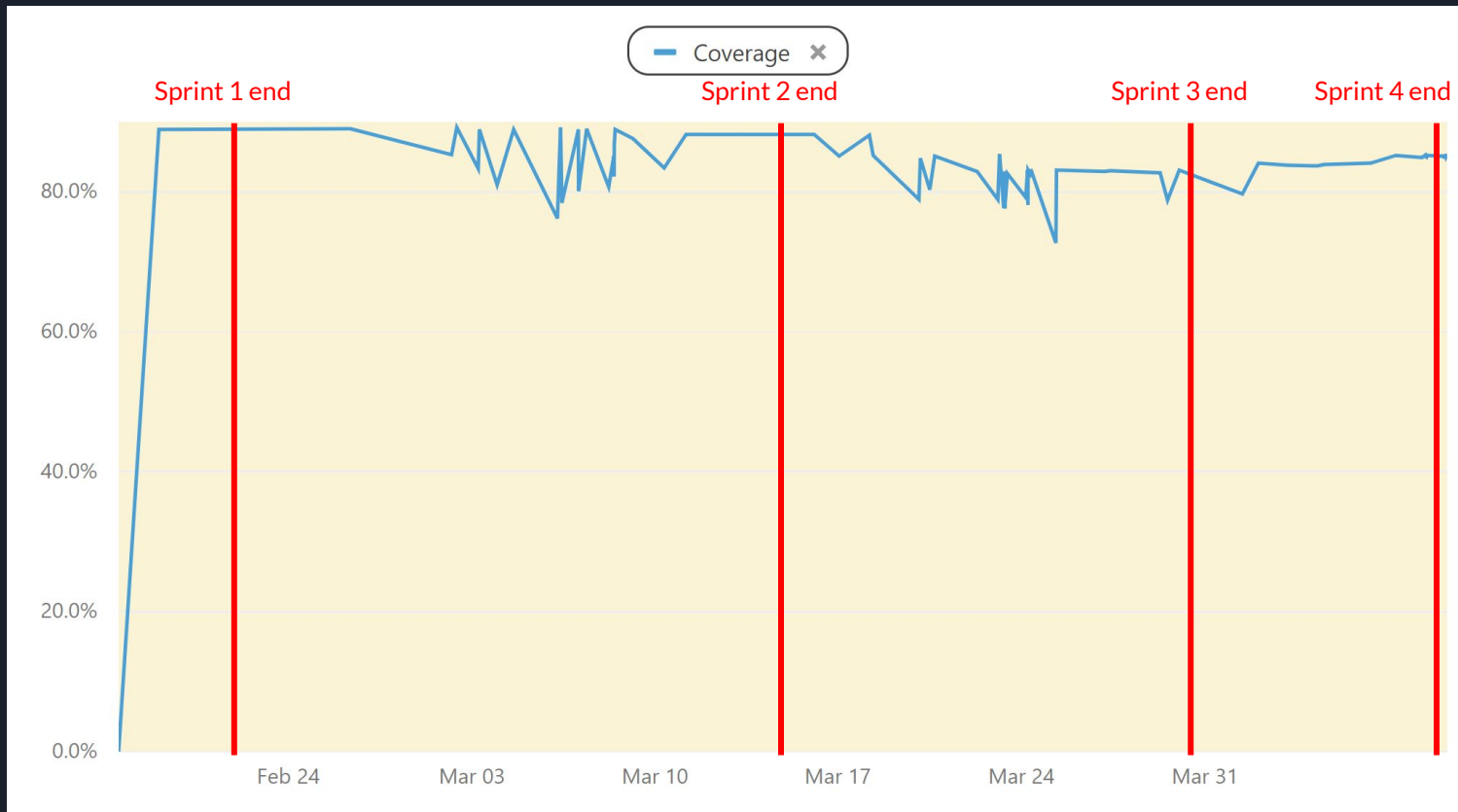
Status Report

* Issue added to sprint after start time

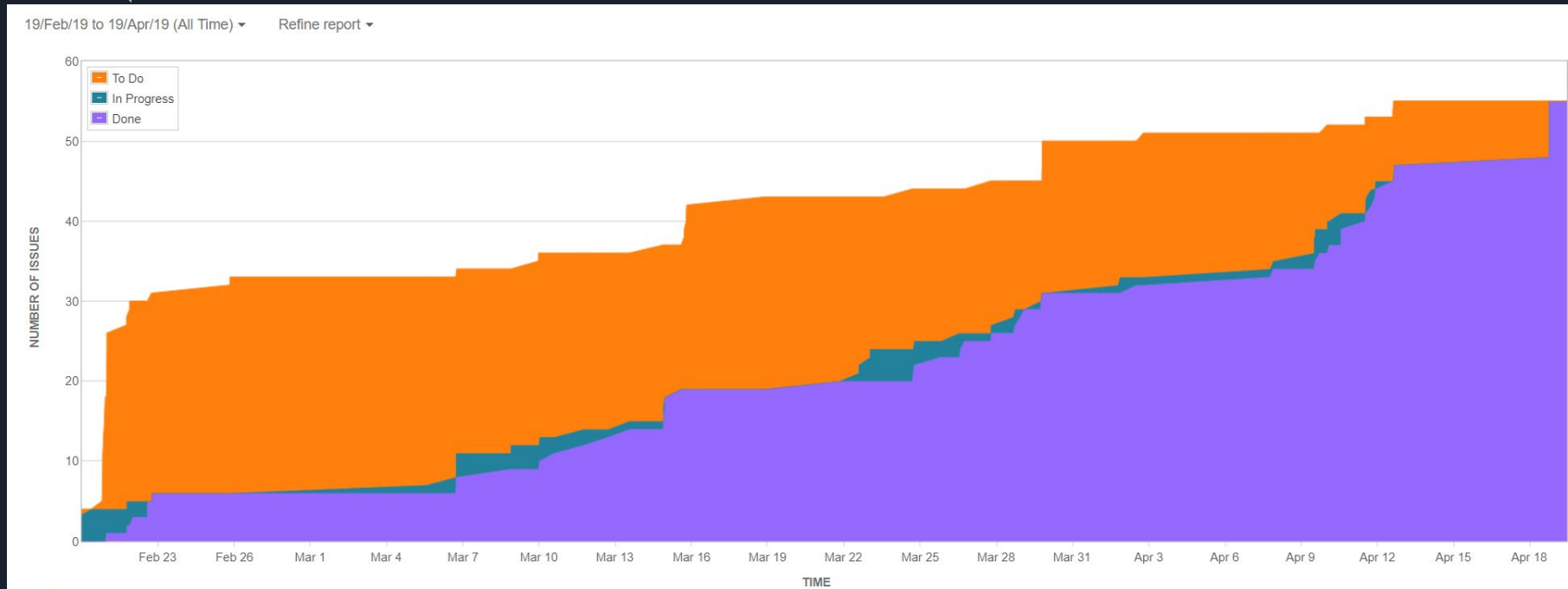
Completed Issues

[View in Issue navigator](#)

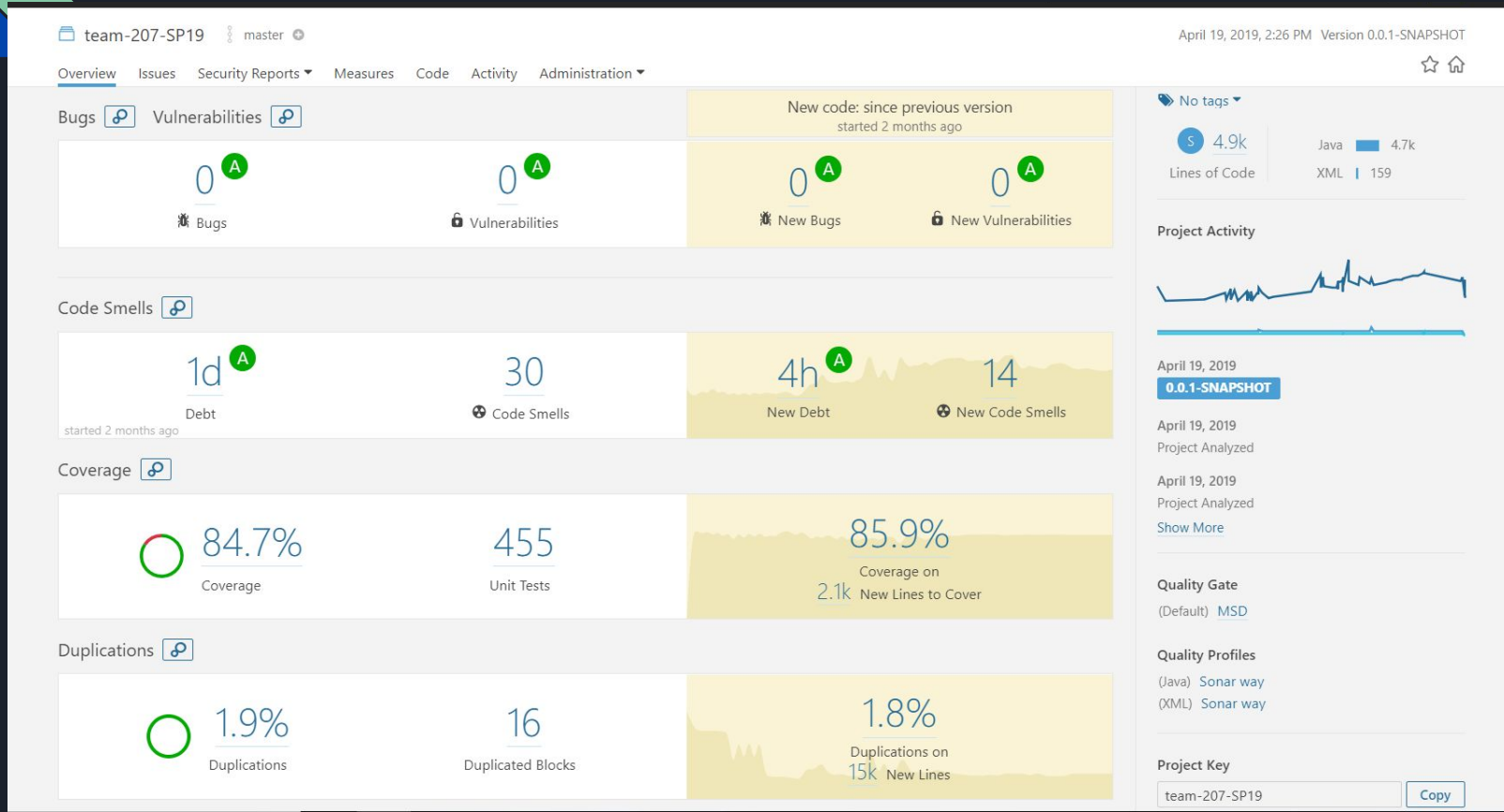
| Key | Summary | Issue Type | Priority | Status | Story Points (TJ) |
|----------------|---|------------|----------|--------|-------------------|
| MSC03TSP19-16 | Blog a Group | Story | Medium | Done | 2 |
| MSC03TSP19-22 | Optional Group Chat Passwords | Story | Low | Done | 1 |
| MSC03TSP19-25 | Do Not Disturb Mode | Story | Medium | Done | 1 |
| MSC03TSP19-26 | Special Government Privileges | Story | Medium | Done | 3 |
| MSC03TSP19-27 | Deleting a Sent Message | Story | Medium | Done | 2 |
| MSC03TSP19-47 | Search users | Story | Medium | Done | 1 |
| MSC03TSP19-52 | Updating Moderator | Story | Medium | Done | 1 |
| MSC03TSP19-52 | Translate text | Story | Medium | Done | 2 |
| MSC03TSP19-53 | Update Circle | Task | Medium | Done | 0 |
| MSC03TSP19-54 | Implement transactions in stored procedures | Task | Medium | Done | 0 |
| MSC03TSP19-55 | Random hanging | Bug | Medium | Done | 0 |
| MSC03TSP19-56 | DM Quoting | Task | Medium | Done | 0 |
| MSC03TSP19-58* | Add Tests For Previous Sprints | Task | Medium | Done | - - 0 |
| MSC03TSP19-59* | Refactor Commands out of Profile | Task | Medium | Done | - - 0 |
| MSC03TSP19-60* | Add Constants for All Hard-coded Strings | Task | Medium | Done | - - 0 |
| MSC03TSP19-61* | Code Cleanup (Code smells and JavaDoc) | Task | Medium | Done | - - 0 |



Ticket Progress



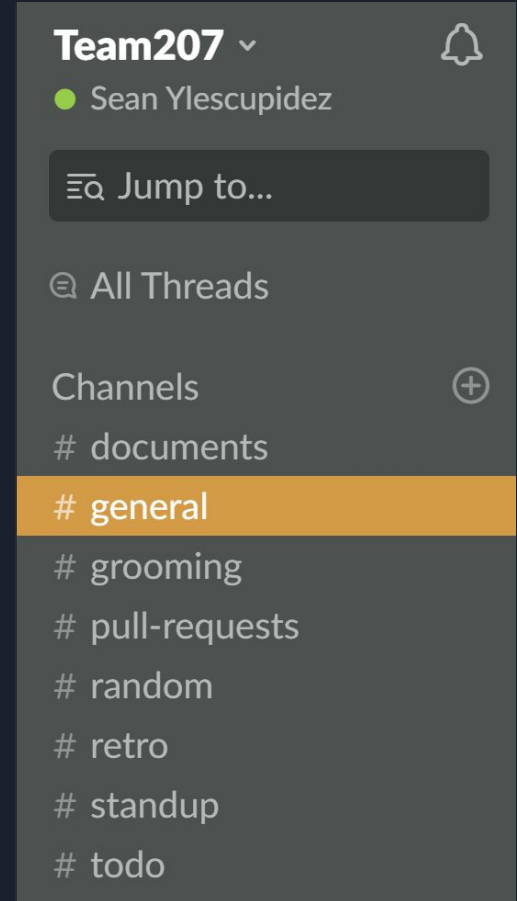
Quality Metrics





Process and Teamwork

- Team Slack
 - Daily standups
 - Constant communication
- Sprint Planning Meetings
 - PlanITPoker
- In-person meetings
 - Quality Assurance
 - Mentoring and cooperation
- Recognizing Shortcomings
 - Sprint Retrospectives





Ready and Useful for the Client?

- Functionally, yes
 - Multiple Features covering Core Use Cases
- Otherwise, probably not
 - The UI is most important
 - Commandline Interface not attractive
 - Availability and Operations



Moving Forward

- Improve the UX
 - Design a GUI for the Client
 - Distributable Client
- Cloud Architecture
 - Autoscaling Groups
 - Load Balancers
 - RDS Replicas
 - Backups
- Additional Features
- System Testing



Thank You!