

- ▲ Epics are large overarching initiatives.
   ≯ Sprints are time-bounded pushes to complete a set of tasks.
   ≺ Tasks are the actions that make up epics.
   ♣ Bugs are tasks to fix things.

| Aa Projects   | Priority | :≡ Туре                      | ⇔ Status    | <ul><li>Sprint</li></ul> | Started              | ☐ Finished           | #<br>Inactivity<br>(h) | ■ Notes   |
|---|----------|------------------------------|-------------|--------------------------|----------------------|----------------------|------------------------|---|
| Create ER diagram   | High     | Documentation Initialization | Complete    | Sprint 01                | @June 11, 2022 13:15 | @June 11, 2022 22:15 | 3                      |   |
| Create Relational<br>diagram  | High     | Documentation I              | Complete    | Sprint 01                | @June 11, 2022 22:18 | @June 12, 2022 2:30  | 3                      |   |
| Translate Relational diagram to SQL   | High     | Initialization 🎉             | Complete    | Sprint 01                | @June 12, 2022 23:40 | @June 13, 2022 0:20  | 0                      |   |
| Create the model classes with Cayenne Modeler                                   | Medium   | Initialization 🎉             | Cancelled   | Sprint 01                | @June 13, 2022 0:20  | @June 13, 2022 0:45  | 0                      | Migration to JPA  |
| From Cayenne to JPA   | High     | Configuration 🔆              | Complete    | Sprint 01                | @June 13, 2022 13:53 | @June 13, 2022 18:00 | 3                      |   |
| Backend login with JWT tokens   | High     | Task 🔨                       | Complete    | Sprint 01                | @June 13, 2022 19:00 | @June 14, 2022 2:30  | 2                      |   |
| Configure Spring<br>security with basic<br>requests                             | Critical | Configuration *              | Complete    | Sprint 01                | @June 13, 2022 23:15 | @June 15, 2022 1:55  | 9                      |   |
| Backend routes with<br>constants  | Medium   | Configuration *              | Complete    | Sprint 01                | @June 14, 2022 13:16 | @June 14, 2022 14:12 | 0                      |   |
| Be able to manage<br>request in controller<br>after passing a Filter            | Critical | Configuration 🔆              | Complete    | Sprint 01                | @June 14, 2022 17:30 | @June 14, 2022 20:40 | 1                      |   |
| Implement<br>SessionService with<br>capability to save,<br>delete               | High     | Task 🔨                       | Complete    | Sprint 01                | @June 14, 2022 21:37 | @June 14, 2022 22:00 | 0                      |   |
| Update DB to include refreshToken   | High     | Configuration ** Task *\     | Complete    | Sprint 01                | @June 14, 2022 21:43 | @June 14, 2022 21:48 | 0                      |   |
| Improve Filters with annotations  | Medium   | Refactor X                   | Cancelled   | Sprint 01                | @June 15, 2022 0:18  | @June 15, 2022 0:27  | 0                      |   |
| Solve problem with user creation by admins                                      | Critical | Bug 🐞                        | Complete    | Sprint 01                | @June 15, 2022 0:29  | @June 15, 2022 1:08  | 0                      | I'm a bit idiot   |
| Improve Logout<br>functionality with a Filter<br>an then call the<br>controller | High     | Task 🔨                       | Cancelled   | Sprint 01                | @June 15, 2022 2:00  | @June 15, 2022 18:40 | 7                      |   |
| Fix login controller does<br>not work after<br>AuthenticationFilter             | Critical | Bug * Configuration *        | Complete    | Sprint 01                | @June 15, 2022 13:00 | @June 15, 2022 14:10 | 0                      | Problem with the LogoutFilter. Removed  |
| Fix CORS security.  | Critical | Bug *                        | Complete    | Sprint 01                | @June 15, 2022 17:50 | @June 15, 2022 18:56 | 0                      | Improved using WebMvcConfigurer in main class with a Bean. This configures CORS globally                              |
| When receiving a request, check if the token exists in DB                       | High     | Task 🔨                       | Not Started | Sprint 01                | @June 16, 2022 18:00 |                      |                        |   |
| Remove Service's<br>interfaces  | High     | Refactor 🛠                   | Complete    | Sprint 01                | @June 17, 2022 14:00 | @June 17, 2022 14:17 | 0                      |   |
| Migration from<br>Timestamp to<br>LocalDateTime                                 | Medium   | Refactor *                   | Cancelled   | Sprint 01                | @June 17, 2022 15:45 | @June 17, 2022 15:50 | 0                      | Made with IntelliJ UI JPA Inspector. Returned to Timestamp because Jackson cannot make correct bindings for that type |
| Document -<br>Requirements<br>specification                                     | High     | Documentation Initialization | Complete    | Sprint 01                | @June 20, 2022 14:00 | @June 20, 2022 20:23 | 2                      |   |
| Register page and<br>switch between Login<br>and Register                       | High     | Task 🔨                       | Complete    | Sprint 01                | @June 20, 2022 20:26 | @June 20, 2022 20:45 | 0                      |   |
| Theme switcher and color palette  | Low      | Task <                       | Complete    | Sprint 01                | @June 20, 2022 20:36 | @June 20, 2022 21:03 | 0                      |   |
| Store, Reducers and<br>Actions for Redux  | High     | Task <                       | Complete    | Sprint 01                | @June 20, 2022 20:41 | @June 20, 2022 20:50 | 0                      |   |
| Toolbar with theme<br>switcher  | Critical | Task 🔨                       | Complete    | Sprint 01                | @June 20, 2022 20:55 | @June 20, 2022 21:03 | 0                      |   |
| Backend register<br>functionality   | Critical | Task 🔨                       | Complete    | Sprint 01                | @June 20, 2022 21:15 | @June 24, 2022 22:05 | 26                     |   |
| Configure deploy.<br>functionality.   | Critical | Initialization 🎉             | Complete    | Sprint 01                | @June 21, 2022 13:00 | @June 22, 2022 1:46  | 3                      |   |
| Better configuration of<br>deployment CORS<br>config                            | Critical | Task 🔨                       | Complete    | Sprint 01                | @June 22, 2022 20:30 | @June 23, 2022 1:35  | 1.5                    |   |
| Migration of frontend to other repo   | Critical | Bug * Refactor * Task *      | Complete    | Sprint 01                | @June 23, 2022 0:37  | @June 23, 2022 1:35  | 0                      |   |
| Improve custom HttpResponse functionality                                       | High     | Task 🔨                       | Complete    | Sprint 01                | @June 23, 2022 22:40 | @June 24, 2022 3:08  | 0                      |   |
| Improve custom HttpRequest functionality  | High     | Task <                       | Complete    | Sprint 01                | @June 24, 2022 0:05  | @June 24, 2022 1:04  | 0                      | Little modification was done  |
| Refactor Responses<br>with the new class  | Medium   | Refactor ** Task *           | Complete    | Sprint 01                | @June 24, 2022 22:00 | @June 24, 2022 22:33 | 0                      |   |
| Solve problem with<br>Instant class of the<br>domain models                     | High     | Bug ** Refactor **           | Complete    | Sprint 01                | @June 24, 2022 22:45 | @June 24, 2022 23:15 | 0.25                   | ObjectMapper must have JavaTimeModule registered  |

| Marie   Mari   | Aa Projects   |          | :≡ Туре    | ⇔ Status  | <ul><li>Sprint</li></ul> | ☐ Started            | ☐ Finished           |      | ■ Notes   |
|--|---|----------|------------|-----------|--------------------------|----------------------|----------------------|------|---|
| Control   Cont   | App renaming  | High     | Refactor 🛠 | Complete  | Sprint 01                | @June 24, 2022 23:54 | @June 25, 2022 0:15  |      |   |
| Security   Control   Con   | Frontend API url change<br>when code is in<br>production or in<br>development env   | High     |            | Complete  | Sprint 01                | @June 25, 2022 0:30  | @June 25, 2022 0:50  | 0    |   |
| Communication   Communicatio   | Improve request<br>handling in filters. Put<br>data in some attribute in<br>the custom class<br>instead of<br>request.setAttribute(). | High     |            | Complete  | Sprint 01                | @June 25, 2022 15:00 | @June 25, 2022 15:20 | 0    |   |
| The Control of Control | Show all opened<br>sessions of user in<br>profile view  | Medium   | Task 🔨     | Complete  | Sprint 01                | @June 26, 2022 0:50  | @June 26, 2022 1:15  | 0    |   |
| Commence   | Profile page with user data (session, name,)  | High     | Task 🔨     | Complete  | Sprint 01                | @June 26, 2022 23:30 | @July 17, 2022 0:04  | -1   |   |
| Comment   Comm   | Make a Router class to configure HTTP methods and permissions   | Low      | Task 🔨     | Cancelled | Sprint 01                | @June 27, 2022 11:26 | @June 27, 2022 11:29 | 0    |   |
| Moderate and Mode  | Add custom Drop Down,<br>password reset and<br>more info in profile   | High     | Task 🔨     | Complete  | Sprint 02                | @July 16, 2022 22:04 | @July 17, 2022 0:05  | 0    |   |
| March   Marc   | Basic chat page   | High     | Task <     | Complete  | Sprint 02                | @July 19, 2022 17:00 | @July 19, 2022 23:50 | 1.5  |   |
| Care      | More style to chat and<br>messages  | Medium   | Task <     | Complete  | Sprint 02                | @July 20, 2022 17:55 | @July 20, 2022 23:55 | 2    | Messages are broken in several lines if long                                |
| Control   Cont   | Add a new table in DB<br>(Chats)<br>Move header of  | Critical | Task 🔨     | Complete  | Sprint 02                | @July 21, 2022 17:20 | @July 21, 2022 19:06 | 0.5  |   |
| Transport Color Section (1985)    March Color Section (1985)   March Color | message up one<br>component (to<br>ChatMessage.jsx)   | Medium   | Task 🔨     | Complete  | Sprint 02                | @July 21, 2022 19:27 | @July 21, 2022 19:47 | 0    |   |
| Company   Special Content      | Send messages from<br>front to back   | High     | Task 🔨     | Complete  | Sprint 02                | @July 21, 2022 19:55 | @July 21, 2022 21:18 | 1    | 1 hour interrupted, I was updating the security routes in a separate class. |
| Note   Complete   Service   Servic   | Update security of the routes. Make a separate class or something   | Low      |            | Complete  | Sprint 02                | @July 21, 2022 20:00 | @July 21, 2022 20:57 | 0    |   |
| ## Marker Seeding American   Walter Seeding American   Seeding | Read messages in<br>backend   | High     | Task 🔨     | Complete  | Sprint 02                | @July 21, 2022 21:20 | @July 21, 2022 21:30 | 0    |   |
| Company   Comp   | Store messages in a file with history   | High     |            | Complete  | Sprint 02                | @July 21, 2022 22:00 | @July 21, 2022 23:30 | 0.4  |   |
| Section   Company   Company   Section   Comp   | message, write nothing<br>in the response   |          |            | Complete  | Sprint 02                | @July 23, 2022 17:40 | @July 23, 2022 17:47 | 0    |   |
| Complete   Spring   Comp   | Create WebSocket<br>server  | High     | Task 🔨     | Complete  | Sprint 02                | @July 23, 2022 20:15 | @July 24, 2022 1:12  | 1.5  |   |
| Sperit ROS   Spe   | Send messages to other<br>members of the chat   | Critical | Task 🔨     | Complete  | Sprint 02                | @July 24, 2022 14:48 | @July 26, 2022 1:28  | 14   |   |
| Treatment from matter desired and point of the class, not component (matter) and point of the class and point of t | Configure frontend to<br>send messages. Create<br>class and Hook  | High     | Task 🔨     | Complete  | Sprint 02                | @July 25, 2022 19:34 | @July 26, 2022 0:34  | 1.7  |   |
| Seriest QC   Quality 28, 2022 18.30   Quality 28, 2022 18.20   Quality  | Receive messages in frontend from other clients and log to console  | High     | Task 🔨     | Complete  | Sprint 02                | @July 26, 2022 0:30  | @July 26, 2022 1:28  | 0    | Received and printed in class, not component                                |
| Part   Complete   Sprint Q2   Outry 26, 2022 18:20   Outry 26, 2022 18:20   Outry 26, 2022 18:30   Outry 27, 2022 0:20   | Add the sessionId when sending the response to the client   | High     |            | Complete  | Sprint 02                | @July 26, 2022 16:37 | @July 26, 2022 17:30 | 0.25 | Previously it was sent the date of sign in                                  |
| Reductor    | Improve message<br>handling between front<br>and back   | High     |            | Complete  | Sprint 02                | @July 26, 2022 18:20 | @July 26, 2022 21:28 | 0.6  |   |
| Clears the fixed in which in the message was sort, in which the message was sort, in white component was released.  Critical Bug  Complete Sprint 02   | Clear the sensitive<br>headers to send the<br>received message to<br>other clients in backend   |          |            | Complete  | Sprint 02                | @July 26, 2022 18:22 | @July 26, 2022 18:38 | 0    |   |
| The message was sent to write or mostly in the file file file file file file file fil  | clients in backend  | High     | Task 🔨     | Complete  | Sprint 02                | @July 26, 2022 22:52 | @July 27, 2022 0:32  | 0.6  | WSClientID record was created   |
| And a deploy test in High Research Action Sprint 02 (a) July 28, 2022 17:42 (b) July 28, 2022 20:33 (c) July 28, 2022 17:59 (c) July 28, 2022 18:42 (c) July 28, 2022 17:59 (c | Check the date in which<br>the message was sent,<br>to write correctly to the<br>file   |          |            | Complete  | Sprint 02                | @July 27, 2022 0:26  | @July 27, 2022 0:29  | 0    |   |
| Identify the WS user in backend   High   Task  | Receive message in component  | High     |            | Complete  | Sprint 02                | @July 27, 2022 0:48  | @July 27, 2022 2:07  | 0    |   |
| messages in ChalBox Provide more style to message components High Improvement of Task Complete Sprint 02 @July 28, 2022 17:05 @July 28, 2022 20:33 0.8 Can be updated anytime  Make a deploy test in Heroku. to verify the functionality of the sackets Migrate from Java- WebScocket in the Java- WebScocket in J | Make a record class to identify the WS user in backend  | High     |            | Complete  | Sprint 02                | @July 27, 2022 17:57 | @July 27, 2022 18:42 | 0    |   |
| message components  Make a deploy test in High  Research A Complete  Sprint 02 @July 28, 2022 17:42 @August 5, 2022 0:45  It Working with S3 correctly, remains connecting to available chats, not the one you want  Refactor X Task Complete  Sprint 02 @July 29, 2022 17:42 @August 5, 2022 0:45  It Tested with an auxiliary file in frontend  Refactor X Task Complete  Sprint 02 @July 30, 2022 15:59  It Tested with an auxiliary file in frontend  Refactor X Task Complete  Sprint 02 @July 30, 2022 16:05  Sprint 02 @July 30, 2022 17:31  It can use the native WebSocket. 1.5 hours lost @  It can use the native WebSocket. 1.5 hours lost @  Refactor X Task Complete  Sprint 02 @July 30, 2022 18:42  @July 31, 2022 15:00  It can use the native WebSocket. 1.5 hours lost @  Complete Sprint 02 @July 30, 2022 18:42  @July 31, 2022 15:00  It can use the native WebSocket. 1.5 hours lost @  Complete Sprint 02 @July 30, 2022 18:42  @July 31, 2022 15:00  It can use the native WebSocket. 1.5 hours lost @  Complete Sprint 02 @July 30, 2022 18:42  @July 31, 2022 15:00  It can use the native WebSocket. 1.5 hours lost @  Complete Sprint 02 @July 30, 2022 18:42  @July 31, 2022 15:00  It can use the native WebSocket. 1.5 hours lost @  Complete Sprint 02 @July 31, 2022 15:45  Eatter handling of chalts  Complete Sprint 02 @July 31, 2022 15:45  Complete Sprint 03 @July 31, 2022 15:45  Complete Sprint 04 @July 31, 2022 15:45  Complete Sprint 05  | Show incoming<br>messages in ChatBox  | High     | Task 🔨     | Complete  | Sprint 02                | @July 27, 2022 20:30 | @July 28, 2022 16:55 | 14   |   |
| Heroku to verify the functionality of the sockets  Migrate from native WebSocket 10 websocket 10 modern with Cancelled Migrate handlers  Refactor % Cancelled Sprint 02 @July 30, 2022 17:31   | Provide more style to<br>message components   | High     |            | Complete  | Sprint 02                | @July 28, 2022 17:05 | @July 28, 2022 20:33 | 0.8  | Can be updated anytime  |
| WebSocket lib to Jetry WebSocket to WebSocket Sprint 02  Sprin | Make a deploy test in<br>Heroku, to verify the<br>functionality of the<br>sockets   | High     | Research 🚵 | Complete  | Sprint 02                | @July 28, 2022 17:42 | @August 5, 2022 0:45 | -1   |   |
| WebSocket 10 webSocket 10 mebSocket Ibrary in frontend  Migrate backend to sprint Q2  Fefactor X Task \  Complete  Sprint Q2  Sprint | Migrate from Java-<br>WebSocket lib to Jetty<br>websockets in backend   | High     |            | Complete  | Sprint 02                | @July 29, 2022 21:03 | @July 30, 2022 15:59 | 14   | Tested with an auxiliary file in frontend                                   |
| Spring websocket support with custom Handlers Better handling of chats Better handling of chats  Better handling of chats  Better handling of chats  Spring Websocket  Sprint 02  Sprint 02 | Migrate from native WebSocket to websocket library in frontend  | High     |            | Cancelled | Sprint 02                | @July 30, 2022 16:05 | @July 30, 2022 17:31 |      | I can use the native WebSocket. 1.5 hours lost §                            |
|  | Migrate backend to<br>spring websocket<br>support with custom<br>Handlers   | High     |            | Complete  | Sprint 02                | @July 30, 2022 18:42 | @July 31, 2022 15:00 | 10   | Client is receiving 403 code from the server                                |
|  | Better handling of chats<br>with a new class  | Low      | Refactor 🛠 | Complete  | Sprint 02                | @July 31, 2022 15:45 | @July 31, 2022 17:22 | 0    |   |

| Aa Projects   | Deinsite         | :≡ Туре                     | : Status             | <ul><li>Sprint</li></ul> | Started   | ☐ Finished                                       | #<br>Inactivity | ■ Notes  |
|---|------------------|-----------------------------|----------------------|--------------------------|---|--|-----------------|--|
| Add a Writer to support   | Priority         | Improvement 🚀               |                      | J -pr.                   |   |  | (h)             | -  |
| message storage in S3. Upload files When uploading file   | High             | Task 1                      | Complete             | Sprint 02                | @July 31, 2022 19:55                            | @July 31, 2022 20:05                             | 0               |  |
| (finished chat) delete<br>from disk. If chat is<br>reopened, download file<br>and keep writting   | Medium           | Improvement #               | Complete             | Sprint 02                | @July 31, 2022 20:06                            | @August 1, 2022 23:05                            | 20              | Key to check for existence was invalid (.txt was not added to the search which returned false)   |
| Add support for all types<br>of files (text, images,<br>videos, audios).  | Medium           | Task 🔨                      | Complete             | Sprint 02                | @August 1, 2022 23:18                           | @August 3, 2022 0:05                             | 18              | Added a builder for comfort, generalized filetype query to S3  |
| New messages when<br>user joins and leaves a<br>chat  | High             | Refactor ** Task *          | Cancelled            | Sprint 02                | @August 3, 2022 20:15                           | @August 4, 2022 22:30                            |                 | Decided to rollback to the working implementation (create a socket per chat connection)  |
| Update docs   | Very<br>high     | Documentation               | Complete             | Sprint 02                | @August 5, 2022 19:50                           | @August 7, 2022 17:52                            |                 |  |
| Check token on connect<br>to websocket  | Medium           | Improvement  Security  Task | Revision             | Sprint 02                | @August 5, 2022 20:30                           | @August 15, 2022 17:04                           | -1              |  |
| Create updated entities in JPA  | High             | Task 🔨                      | Complete             | Sprint 02                | @August 5, 2022 22:15                           | @August 6, 2022 23:26                            | 12              | Check if the entities can contain only the reference object, not the id and the object (see Session last 2 attributes). Update: entities only have the id (if an object of other entity is required) |
| Make administrator view in frontend   | Medium           | Improvement 🚀               | Complete             | Sprint 02                | @August 6, 2022 12:30                           | @September 13, 2022 13:42                        | -1              | Implementation of services   |
| Make separate classes<br>for Route constants<br>(GET, POST,)  | Low              | Refactor 🏋                  | Complete             | Sprint 02                | @August 6, 2022 14:26                           | @August 6, 2022 16:14                            | 1.5             |  |
| Implement Degree<br>controller and<br>associated Service in<br>backend  | High             | Task 🔨                      | Revision             | Sprint 02                | @August 6, 2022 16:45                           | @August 6, 2022 20:48                            | 0.3             |  |
| Update old methods that<br>used ResponseEntity≤?<br>≥ to use the new<br>HttpResponse class  | Low              | Improvement 🊀               | Complete             | Sprint 02                | @August 6, 2022 23:29                           | @August 6, 2022 23:42                            | 0               |  |
| Check that all routes have the correct http method and permissions  | High             | Task 🔨                      | Complete             | Sprint 02                | @August 7, 2022 16:53                           | @August 7, 2022 17:32                            | 0               |  |
| <u>Document - Design</u><br><u>model</u>  | High             | Documentation I             | Complete             | Sprint 02                | @August 9, 2022 19:50                           | @August 9, 2022 20:15                            | 0               |  |
|   | High             | Documentation               | Revision<br>Revision | Sprint 02                | @August 9, 2022 22:10<br>@August 9, 2022 23:15  | @August 9, 2022 22:30                            | 0               | 13-08-22 > It has changes (add groups)   |
| Use case diagram  Spinner on login or register, to know that the  | High<br>Medium   | Documentation Improvement 🚀 | Complete             | Sprint 02<br>Sprint 02   | @August 9, 2022 23:15<br>@August 11, 2022 23:00 | @August 11, 2022 22:58<br>@August 11, 2022 23:40 | 0               |  |
| request has been sent  Check migration guide  | Low              |                             |                      |                          |   |  | 2.5             |  |
| java-jwt to version 4   |                  | Security 🔒                  | Complete             | Sprint 03                | @August 12, 2022 20:43                          | @August 12, 2022 23:56                           |                 |  |
| Decide structure of the   | High<br>Very     | Refactor **  Task *         | Revision  May change | Sprint 03                | @August 13, 2022 0:11<br>@August 13, 2022 0:30  | @August 13, 2022 0:30<br>@August 13, 2022 1:00   | 0               |  |
| chat URLs Add groups to all   | high<br>Critical |                             |                      | Sprint 03                |   |  |                 |  |
| diagrams How to escape SQL  | Ò                | Task 🔨                      | Complete             | Sprint 03                | @August 13, 2022 0:45                           | @August 13, 2022 14:05                           | 12              |  |
| reserved keywords with<br>Spring boot. JPA and<br>Hibernate - Java JEE<br>tutorials by Tarik<br>Chrouki   | High             | Bug 🐞                       | Complete             | Sprint 03                | @August 14, 2022 17:40                          | @August 14, 2022 17:45                           | 0               |  |
| Show available chats to user in home view   | High             | Task 🔨                      | Complete             | Sprint 03                | @August 15, 2022 19:33                          | @August 15, 2022 23:05                           | 1.4             | See <u>Home page with chat selection</u>   |
| Make chatReducer to<br>shorten loading of home<br>screen when requesting<br>all available chats for a<br>user   | High             | Improvement 🚀               | Complete             | Sprint 03                | @August 16, 2022 16:55                          | @August 16, 2022 17:36                           | 0               | Added the request of all the chats on login and return to client.  |
| Add a callback to client<br>to execute it when a<br>message is sent<br>correctly  | Low              | Refactor 🋠                  | Complete             | Sprint 03                | @August 16, 2022 17:41                          | @August 16, 2022 17:58                           | 0               |  |
| Change type of chat in<br>DB to longer name   | High             | Refactor 🛠                  | Complete             | Sprint 03                | @August 16, 2022 20:56                          | @August 17, 2022 22:30                           | 1               | Also changed metadata column to json type  |
| Fix problems adding<br>users to global chat on<br>register  | Very<br>high     | Bug 🐞                       | Complete             | Sprint 03                | @August 17, 2022 20:32                          | @August 17, 2022 23:20                           | 0.75            | IMPORTANT: PK classes are now grabeddable and they are used in related entity class as a private field with the annotation grabeddate  |
| Improve chat with name<br>and more information<br>about it  | High             | Task 🔨                      | May change           | Sprint 03                | @August 18, 2022 19:15                          | @August 18, 2022 20:19                           | 0.25            |  |
| <u>Divide each DropDown</u><br>into new component and<br>include them in<br>Administration view   | Medium           | Refactor 🏋                  | Complete             | Sprint 03                | @August 18, 2022 20:22                          | @August 19, 2022 0:15                            | 1.5             | Made in 2 phases (Extraction, Refactoring). Also extracted Dialogs to new components   |
| Edit diagrams and<br>refactor entity classes<br>(relation classes) and  | Very<br>high     | Bug *                       | Complete             | Sprint 03                | @August 19, 2022 16:41                          | @August 19, 2022 17:18                           | 0               |  |
| Listen to new messages and check if they are USER_JOINEO or USER_LEFT and send a new type of message to get the connected users of the chat in the background | Medium           | Improvement 🚀               | Complete             | Sprint 03                | @August 19, 2022 22:00                          | @August 20, 2022 0:17                            | 0               | Use ACTIVE_USERS_MESSAGE   |
| Add a list of connected users to the chat view  | Very<br>low      | Idea 🧠                      | Complete             | Sprint 03                | @August 19, 2022 22:37                          | @August 20, 2022 0:13                            | 0               |  |

| Aa Projects   | Priority     | :≡ Туре                | ⇔ Status  | <ul><li>Sprint</li></ul> | ☐ Started                | Finished                  | #<br>Inactivity<br>(h) | <b>≡</b> Notes   |
|---|--------------|------------------------|-----------|--------------------------|--------------------------|---------------------------|------------------------|--|
| Show popup when<br>hovering hour of<br>message to display full<br>date  | High         | Improvement 🚀          | Complete  | Sprint 03                | @August 21, 2022 19:26   | @August 21, 2022 20:00    | 0                      | Also added dateformat lib. See <u>Show popup when hovering hour of message to display full date</u>  |
| Use strategy pattern to<br>make MessageHandler<br>more readable   | Very<br>high | Refactor 🛠             | Complete  | Sprint 03                | @August 22, 2022 0:16    | @August 22, 2022 20:47    | 15                     |  |
| Upon connection of the user, receive all the messages of the chat up to a limit of 3 days before                        | High         | Improvement 🚀          | Complete  | Sprint 03                | @August 22, 2022 20:49   | @August 22, 2022 23:48    | 0.75                   | New message type. Messages are sent after the listeners are set  |
| Read history from file<br>stored in disk if it is<br>downloaded. To have<br>updated history to new<br>users.            | Critical     | Bug 🀞                  | Complete  | Sprint 03                | @August 23, 2022 18:00   | @August 24, 2022 1:00     | 2                      | Since it is always downloaded when the first user is connected, if more users connect to the chat, it is only needed to read from the file   |
| Order active users by name  | Low          | Improvement 🚀          | Complete  | Sprint 03                | @August 23, 2022 20:25   | @August 23, 2022 20:34    | 0                      |  |
| Schedule the upload of<br>the history file to S3<br>after a period of time  | High         | Improvement 🚀          | Reference | Sprint 03                | @August 24, 2022 20:30   | @August 24, 2022 20:50    | 0                      | See <u>Upload the file to S3 every 10 minutes</u>  |
| Upload the file to S3<br>every 10 minutes   | Medium       | Improvement A          | Revision  | Sprint 03                | @August 24, 2022 20:30   | @August 24, 2022 20:50    | 0                      | Do this if a chat has clients for this amount of time  |
| Do the documentation of the Java code   | Very<br>high | Documentation          | Complete  | Sprint 03                | @August 24, 2022 22:47   | @August 26, 2022 0:40     | 12                     |  |
| Add the README.md   | Low          | Documentation          | Complete  | Sprint 03                | @August 26, 2022 19:05   | @August 26, 2022 21:00    | 0.2                    | Added file to frontend and backend   |
| Add drag 'n' drop to<br>select files to send to<br>the chat   | High         | Task 🔨                 | Complete  | Sprint 03                | @August 26, 2022 20:50   | @August 27, 2022 15:00    | 12                     |  |
| Add support to encode<br>(in base64) files to be<br>able to send to the<br>server as normal<br>WebSocket messages       | High         | Task 🔨                 | Complete  | Sprint 03                | @August 26, 2022 22:50   | @August 26, 2022 23:20    | 0                      | They are sent as HTTP requests, not through WebSocket, since there is a data size limit. See <u>Upload images from frontend with drag in drop and encode into base64</u>   |
| Send the media files<br>with http requests to the<br>server instead of<br>encoding and sending<br>through the WebSocket | Very<br>high | Improvement 🚀          | Complete  | Sprint 03                | @August 27, 2022 14:30   | @August 27, 2022 23:45    | 1.5                    | Improvement for this task, since through WebSockets the data transmission is limited to few kB.  |
| Migrate maxWidth<br>determination to<br>backend   | Low          | Refactor 🛠             | Complete  | Sprint 03                | @August 28, 2022 20:43   | @August 28, 2022 20:55    | 0                      |  |
| Add functionality for<br>adding more media files  | Very<br>high | Task 🔨                 | Complete  | Sprint 03                | @August 28, 2022 23:15   | @September 2, 2022 17:34  | -1                     | Another Strategy pattern in FileController   |
| Fix url when receiving<br>response from server  | Critical     | Bug 🐞                  | Complete  | Sprint 03                | @August 28, 2022 23:19   | @August 29, 2022 0:40     | 0                      |  |
| Add support for having database in localhost  | High         | Task 🔨                 | Complete  | Sprint 03                | @September 2, 2022 18:45 | @September 2, 2022 18:56  | 0                      |  |
| Send a ping message<br>from frontend to keep<br>the connection alive  | Critical     | Task 🔨                 | Complete  | Sprint 03                | @September 4, 2022 23:00 | @September 4, 2022 23:27  | 0                      |  |
| Migrate applications<br>from Heroku to Vercel   | High         | Task 🔨                 | Complete  | Sprint 03                | @September 5, 2022 23:00 | @September 5, 2022 23:15  | 0                      | Only frontend was moved. Heroku will not have free plans after 28th November 2022.<br>Contact Vercel if they have student plans  |
| Disable send button if<br>no text or image is going<br>to be sent   | Low          | Improvement ** Task ** | Complete  | Sprint 03                | @September 6, 2022 1:00  | @September 6, 2022 1:50   | 0                      |  |
| Show how many images are attached to the message  | Low          | Improvement #          | Complete  | Sprint 03                | @September 6, 2022 1:20  | @September 6, 2022 1:40   | 0                      | They must be confirmed in the dialog. If the dialog is closed without clicking on the<br>"Attach" button, the files will remain selected but the user cannot send the message.<br>After sending a message, if images were selected but not attached, they are removed<br>from the selection. |
| Be able to handle<br>several files at once, to<br>keep the order in which<br>they were sent                             | Medium       | Improvement 🚀          | Complete  | Sprint 03                | @September 6, 2022 1:45  | @September 6, 2022 3:00   | 0                      |  |
| Make a Feature readme file  | Very<br>high | Documentation          | Complete  | Sprint 03                | @September 6, 2022 20:00 | @September 7, 2022 0:13   | 2                      |  |
| Idle connection of<br>WebSockets  | Critical     | Bug 🐞                  | Complete  | Sprint 03                | @September 7, 2022 14:22 | @September 7, 2022 17:00  | 1                      | Needs to be tested. Solved by adding an interval   |
| Create invitation links to<br>put in profile and join a<br>chat   | Very<br>high | Improvement  Task      | Complete  | Sprint 03                | @September 7, 2022 17:31 | @September 7, 2022 20:56  | 1.5                    | Add new column in chat table. They are codes, not links (for the moment)   |
| Add style to have chats<br>structured in a grid in<br>Home view   | High         | Improvement 🚀          | Complete  | Sprint 03                | @September 7, 2022 21:12 | @September 8, 2022 2:10   | 1.5                    |  |
| Extract to a JSON the<br>router structure in App<br>component   | High         | Refactor **            | Complete  | Sprint 03                | @September 8, 2022 16:11 | @September 8, 2022 16:54  | 0                      | Make an array of objects that have: path, type (public, private or admin), component. If public, add restricted or not   |
| Remove express and<br>file to serve frontend<br>(since Vercel does not<br>need it).                                     | Very<br>high | Refactor 🛠             | Complete  | Sprint 03                | @September 8, 2022 17:06 | @September 8, 2022 17:10  | 0                      | Vercel uses package json file  |
| When entering a chat,<br>send a http request to<br>check if the user has<br>access to that chat                         | Very<br>high | Task 🔨                 | Complete  | Sprint 03                | @September 8, 2022 17:23 | @September 8, 2022 19:59  | 0.5                    | This is done to prevent users to join a chat that is not available to them (modify the URL by hand). See also <u>Restrict the connection to chats</u> . <u>Users can only connect to available ones</u>  |
| Restrict the connection<br>to chats. Users can only<br>connect to available<br>ones                                     | Critical     | Refactor 🌿             | Complete  | Sprint 03                | @September 8, 2022 17:23 | @September 8, 2022 19:59  | 0.5                    | See also <u>When entering a chat, send a little request to check if the user has access to that chat</u>   |
| Configure email sender<br>to be able to send<br>emails when users are<br>registered or password<br>are reset            | Very<br>high | Improvement 🚀          | Complete  | Sprint 03                | @September 9, 2022 0:05  | @September 9, 2022 1:11   | 0.5                    |  |
| Add email templates for<br>register and password<br>change  | High         | Improvement 🚀          | Complete  | Sprint 03                | @September 9, 2022 1:20  | @September 11, 2022 17:25 | 32                     |  |
| Fix 404 error when<br>accessing app in Vercel<br>from external page   | High         | Bug * Documentation    | Complete  | Sprint 03                | @September 9, 2022 14:00 | @September 9, 2022 14:30  | 0                      | https://t3.gg/blog/post/vite-vercel  |

| Aa Projects   |              | := Type                     | e's Status  | Sprint     Sp | ☐ Started                 | ☐ Finished                | #<br>Inactivity | ≡ Notes   |
|---|--------------|-----------------------------|-------------|---|---------------------------|---------------------------|-----------------|---|
| If user checks the  | Priority     | : Туре                      | t,c Status  | © ohiur   | □ Stated                  | E I maret                 | (h)             | = ******  |
| "Remember me" checkbox, extend the expiration time of the access token to 2 weeks or more   | High         | Improvement 🚀               | Complete    | Sprint 03   | @September 9, 2022 20:05  | @September 9, 2022 20:27  | 0               |   |
| Implement Forgot password functionality and improve reset password. When the user wants to change the password in the profile, send a forgot password reguest with the email, then redirect to create password, since it will | High         | Improvement A               | Complete    | Sprint 03   | @September 9, 2022 20:35  | @September 10, 2022 3:06  | 2.2             | Create a new column in users' table (Or a composite value (so a new table is created) with password, reset password and a code to generate when it resets or forgets). The last option implies heavier refactoring (finally first option is implemented). See <u>Forgot password functionally</u> . |
| be correct  Change all TextField components to be size='small'  | Low          | Refactor 🋠                  | Complete    | Sprint 03   | @September 10, 2022 20:49 | @September 11, 2022 20:55 | 0               |   |
| Eix exception when a<br>user exits a chat. User<br>is not created and<br>added to chat  | Critical     | Bug 🐞                       | Complete    | Sprint 04   | @September 12, 2022 8:35  | @September 12, 2022 8:54  | 0               | The connection with the method does not work as expected. The connection is made in the onopen of the WebSocket   |
| Solve problem of not<br>sending USER LEFT<br>(and USER JOINED)<br>messages to the server  | Critical     | Bug 🐞                       | Complete    | Sprint 04   | @September 12, 2022 17:15 | @September 12, 2022 20:00 | 0.1             | The client was disabled before sending the USER_LEFT message. USER_JOINED are sent after checking that the user can connect to the chat, in the chat page   |
| Administrators and teachers must have access to invitation code of a chat   | High         | Improvement 🚀               | Complete    | Sprint 04   | @September 12, 2022 23:00 | @September 13, 2022 1:00  | 0               | When clicking the chat name or show next to it  |
| Improve administration<br>view to have several big<br>buttons to select the<br>next window to visualize<br>(not having all data in<br>the same page)  | High         | Improvement 🚀<br>Refactor 🋠 | Complete    | Sprint 04   | @September 13, 2022 12:15 | @September 13, 2022 13:42 | 0               | Also added Statistics page  |
| Save the files uploaded to the database   | High         | Task 🔨                      | Complete    | Sprint 04   | @September 14, 2022 13:50 | @September 14, 2022 14:52 | 0               |   |
| Limit the size of the files uploaded  | High         | Improvement 🚀               | Complete    | Sprint 04   | @September 14, 2022 14:52 | @September 14, 2022 14:57 | 0               |   |
| Fix problems with audio<br>files that move one<br>message down  | Critical     | Bug 🐞                       | Complete    | Sprint 04   | @September 14, 2022 16:47 | @September 14, 2022 17:24 | 0               | Only fails when the app is executed locally   |
| Remove null clients<br>from list in backend<br>when a message is<br>going to be sent  | Medium       | Bug 🐞                       | Complete    | Sprint 04   | @September 14, 2022 20:04 | @September 14, 2022 20:16 | 0               | Made to prevent errors. Every 3 minutes, check if there are null clients in the list.   |
| Refactor the messages<br>sent over WS to remove<br>encoding field (we only<br>use UTF-8), and simplify<br>to UTF8   | High         | Refactor **                 | Complete    | Sprint 04   | @September 15, 2022 12:21 | @September 15, 2022 12:33 | 0               |   |
| Reduce emojis file to<br>only needed fields<br>(name, emoji, unicode,<br>category, sub-category).   | Medium       | Improvement 🊀               | Complete    | Sprint 04   | @September 15, 2022 12:36 | @September 15, 2022 13:46 | 0               | Make a table for emojis   |
| Add the clock (bean) to<br>Instant.now() calls  | Medium       | Task 🔨                      | Complete    | Sprint 04   | @September 16, 2022 13:26 | @September 16, 2022 13:36 | 0               |   |
| Add support for adding<br>emojis without pasting<br>them (some keyword<br>like ':')   | Low          | Improvement 🚀               | Complete    | Sprint 04   | @September 16, 2022 14:03 | @September 19, 2022 21:04 | -1              | Api: <a href="https://pithub.com/abourtnik/emojis-world">https://pithub.com/abourtnik/emojis-world</a> Or have the list in memory or read from the file or have a table in db. Decision: DB. When the users enters character "some emojis are suggested. The emoji is between "characters"          |
| Instead of "for showing<br>emojis, add a button at<br>the beginning of the<br>TextBox   | High         | Refactor 🛠                  | Complete    | Sprint 04   | @September 22, 2022 15:00 | @October 6, 2022 20:17    | -1              | Paused the implementation due to creation of the document for the final delivery  |
| Fix problems with tests   | Very<br>high | Bug 🐞 Test 🧪                | Complete    | Sprint 04   | @September 26, 2022 21:45 | @September 26, 2022 22:36 | 0.2             | <u>This</u> solves problems. <u>This</u> solves problems running tests with Maven   |
| Add some unit and<br>integration tests  | High         | Task 	Test                  | In Progress | Sprint 04   | @September 27, 2022 11:30 |                           |                 |   |
| Improve services to throw exceptions if the entity is not found or an error occurs (and not make it in the controller) and other functionality that could be moved from controllers   | Medium       | Refactor ** Test **         | May change  | Sprint 04   | @September 28, 2022 16:20 | @October 7, 2022 0:19     | -1              | Needed refactor of Service and Controller classes   |
| Refactor message<br>strategy to have only<br>one implementation of<br>handle method<br>(Audio/Image/Text/Video<br>classes).   | Medium       | Refactor **                 | Complete    | Sprint 04   | @September 30, 2022 19:48 | @September 30, 2022 20:00 | 0               |   |
| Document the pattern<br>used by the ChatMap<br>class  | High         | Documentation               | Complete    | Sprint 04   | @October 1, 2022 13:45    | @October 4, 2022 12:16    | -1              |   |
| Meeting with David<br>Nkoto from Platform.sh  | Critical     | Task 🔨                      | Complete    | Sprint 04   | @October 4, 2022 11:00    | @October 4, 2022 11:20    | 0               | No contract agreed  |
| Notification when a<br>message is received  | Low          | Improvement 🚀               | Complete    | Sprint 04   | @October 8, 2022 1:36     | @October 8, 2022 2:00     | 0               | Source of the notification sound: <a href="https://mobcup.net/ringtone/mobile-ah-song-jcpfodv9">https://mobcup.net/ringtone/mobile-ah-song-jcpfodv9</a>   |
| Fit content to all devices<br>(Phone, tablet, pc)   | Critical     | Improvement #               | Complete    | Sprint 05   | @October 11, 2022 23:07   | @October 12, 2022 0:29    | 0               |   |
| Published Instagram<br>story to get feedback  | Medium       | Research 🚵                  | Complete    | Sprint 05   | @October 12, 2022 0:36    | @October 13, 2022 0:36    | 0               |   |
| Register email address<br>in Sendgrid to prevent<br>automatic emails to be<br>received in spam folder   | Very<br>high | Bug 🐞                       | TempCancel  | Sprint 05   | @October 12, 2022 2:35    |                           |                 | Emails are received in spam folder Moved to Gmail (using tricks   |
|   |              |                             |             |   |                           |                           |                 |   |

| Aa Projects   | Priority               | i≡ Type                         | ∜ Status             | <ul><li>Sprint</li></ul> | ☐ Started  | ☐ Finished               |     | ■ Notes  |
|---|------------------------|---------------------------------|----------------------|--------------------------|--|--------------------------|-----|--|
| Infinite requests when going to add new group   | High                   | Bug 🐞                           | Complete             | Sprint 05                | @October 12, 2022 23:24                            | @October 12, 2022 23:26  | (h) | A dependency list in useEffect was not present   |
| Improve chat grid at home page  | Very<br>high           | Bug 🐞                           | Complete             | Sprint 05                | @October 13, 2022 0:02                             | @October 13, 2022 0:22   | 0   | Removed margin from DropDown and must be set whenever it is used to the inner components   |
| Improve Active users<br>tab with list switching<br>(active / all).  | Medium                 | Improvement 🚀                   | Complete             | Sprint 05                | @October 13, 2022 15:50                            | @October 13, 2022 17:34  | 0.5 |  |
| Configure home server   | Critical               | Configuration ** Improvement ** | Complete             | Sprint 05                | @October 14, 2022 16:00                            | @October 16, 2022 22:00  | 16  |  |
| Backend works correctly in home server  | Critical               | Configuration 🗱                 | Complete             | Sprint 05                | @October 15, 2022 20:00                            | @October 15, 2022 23:15  | 0.7 |  |
| Make WebSockets work in the home server   | Critical               | Configuration 🔆                 | Complete             | Sprint 05                | @October 15, 2022 23:28                            | @October 15, 2022 23:32  | 0   | Only needed to change WebSocket connection URL   |
| Create self-signed SSL<br>cert to enable access<br>from Vercel  | Very<br>high           | Bug 🀞 Configuration 🌞           | Complete             | Sprint 05                | @October 16, 2022 18:32                            | @October 17, 2022 21:12  | 8   | No self-signed SSL used. We use certibot to get the certificates automatically with reliable CA.   |
| Improve log configuration file to make files with RollingFilePolicy   | Medium                 | Improvement A                   | Complete             | Sprint 05                | @October 19, 2022 17:20                            | @October 20, 2022 18:10  | 0   |  |
| Improve Administration<br>pages with edit and list<br>views (with edit and<br>remove button on every<br>item of the list)               | Medium                 | Improvement 🚀                   | Complete             | Sprint 05                | @October 21, 2022 19:30                            | @October 22, 2022 17:23  | 10  | Deleting chats, remove history   |
| Fix removal of chats<br>with incorrect id. Modify<br>tables to have one<br>column with the id of the<br>table the entries come<br>from. | High                   | Bug 🐞                           | Complete             | Sprint 05                | @October 22, 2022 12:15                            | @October 22, 2022 23:45  | 3   |  |
| Check why the sessions<br>are removed every time<br>the scheduled task is<br>executed   | Medium                 | Bug 🐞                           | Complete             | Sprint 05                | @October 25, 2022 20:25                            | @October 25, 2022 20:32  | 0   | Token did not have the prefix when verifying it. Changed implementation of the method to support having or not the "Bearer" prefix   |
| Add support for text and pdf files messages   | High                   | Improvement 🚀                   | Complete             | Sprint 05                | @October 26, 2022 0:38                             | @October 26, 2022 1:30   | 0   | Remains giving style to the message boxes  |
| PDF visualizer  | Medium                 | Improvement 🚀                   | Complete             | Sprint 05                | @October 26, 2022 15:30                            | @October 26, 2022 17:38  | 0.3 |  |
| Leave chat (user action).  Improve performance when showing the   | Medium<br>Very<br>high | Improvement   Improvement       | Complete In Progress | Sprint 05<br>Sprint 05   | @October 26, 2022 18:53<br>@October 26, 2022 19:38 | @October 26, 2022 19:10  | 0   |  |
| emojis When clicking a  |                        |                                 |                      |                          |  |                          |     |  |
| username in a chat,<br>display a small popup<br>with a button to start a<br>user-user chat or other<br>actions                          | High                   | Improvement A                   | Complete             | Sprint 05                | @October 26, 2022 23:10                            | @October 26, 2022 23:48  | 0   | Causes errors and the page turns completely white because the following exception<br>Occurs Swedered feer hosts that expected. This are for caused by an exclerated early<br>return statement. Update: Initial date: 20 August 0:20 — 21 August 23:23 Now no<br>errors |
| Add end date to sessions, to not verify on each token every 15 minutes to check if it has expired.                                      | Medium                 | Improvement A                   | Complete             | Sprint 05                | @October 28, 2022 1:35                             | @October 28, 2022 1:56   | 0   |  |
| Remove refresh token<br>from sessions, because<br>it is not used  | High                   | Refactor **                     | Complete             | Sprint 05                | @October 28, 2022 1:57                             | @October 28, 2022 2:40   | 0   | Also from frontend in Redux  |
| Administration button to<br>schedule the restart of<br>the server   | Very<br>high           | Improvement 🚀                   | Complete             | Sprint 05                | @October 29, 2022 0:40                             | @October 29, 2022 16:06  | 8   |  |
| Refactor connection to<br>web socket server by<br>adding one previous<br>step to joining the chat                                       | High                   | Improvement  Refactor  Task     | Complete             | Sprint 05                | @October 30, 2022 0:39                             | @October 30, 2022 1:18   | 0   | Now messages can be sent without being in a chat   |
| Add a new page to send<br>information message to<br>all users   | High                   | Improvement 🚀                   | Complete             | Sprint 05                | @October 30, 2022 22:30                            | @October 31, 2022 2:34   | 0   | In frontend we make a new page with a chat (only for administrators) and every message that is sent, is globally notified (new type and task). Also, I can define buttons to have predefined messages to send.   |
| Global variable to store<br>the WebSocket client<br>when the user is logged<br>in   | High                   | Improvement 🚀                   | Complete             | Sprint 05                | @November 2, 2022 16:41                            | @November 2, 2022 17:00  | 0   | Kept global state with a React context.<br>https://stackoverflow.com/guestions/69675357/react-what-is-the-proper-way-to-do-<br>global-state  |
| State information about<br>the connection of the<br>socket to the server<br>(Connected or<br>disconnected) in Toolbar                   | Medium                 | Improvement 🊀                   | Complete             | Sprint 05                | @November 2, 2022 17:03                            | @November 2, 2022 17:11  | 0   |  |
| Extract connection<br>display to new<br>component   | Medium                 | Refactor 🛠                      | Complete             | Sprint 05                | @November 4, 2022 13:39                            | @November 4, 2022 14:00  | 0   |  |
| New component colors<br>for the information<br>messages   | High                   | Improvement 🚀                   | Complete             | Sprint 05                | @November 4, 2022 14:21                            | @November 4, 2022 14:23  | 0   |  |
| Revise all todo tasks   | Very<br>high           | Research 🌋                      | Complete             | Sprint 05                | @November 4, 2022 20:27                            | @November 5, 2022 0:58   | 1.5 | First frontend, then backend   |
| Add support for<br>commands with '/'<br>character   | Low                    | Improvement 🚀                   | Complete             | Sprint 05                | @November 5, 2022 2:01                             | @November 5, 2022 15:33  | 9   | Use a Tokenizer (idea)   |
| Support mentions with<br>'@' character  | Medium                 | Improvement 🚀                   | Complete             | Sprint 05                | @November 5, 2022 3:36                             | @November 5, 2022 15:33  | 9   | Use the same tokenizer for commands but for @ symbol   |
| Implement commands<br>and mentions  | High                   | Improvement 🚀                   | In Progress          | Sprint 05                | @November 6, 2022 2:34                             |                          |     |  |
| Web Socket does not<br>connect to backend in<br>production  | Critical               | Bug 🐞                           | Complete             | Sprint 06                | @November 11, 2022 18:30                           | @November 16, 2022 1:28  | -1  | Brave Browser was blocking the connection 🤗  |
| Refactor all the controllers. When an exception is thrown in other method, catch it to send a response message to show to the user      | Very<br>high           | Refactor ** Task *\             | Complete             | Sprint 06                | @November 15, 2022 23:28                           | @November 16, 2022 19:24 | 14  | Change the error message retrieval in frontend. Can be rolled back to not using this, since the exceptions are sent if thrown in other method, but the message retrieval changes a bit.  |

|   |              |                                       |             |                          |                          |                          | ±                      |   |
|---|--------------|---------------------------------------|-------------|--------------------------|--------------------------|--------------------------|------------------------|---|
| Aa Projects   | Priority     | :≡ Туре                               | ⇔ Status    | <ul><li>Sprint</li></ul> | □ Started                | ☐ Finished               | #<br>Inactivity<br>(h) | ■ Notes   |
| Check response bodies in frontend   | Very<br>high | Refactor ** Task *                    | Complete    | Sprint 06                | @November 16, 2022 20:00 | @November 16, 2022 20:06 | 0                      |   |
| Backend logging<br>division by level  | Very<br>high | Configuration *                       | Complete    | Sprint 06                | @November 16, 2022 23:30 | @November 17, 2022 0:05  | 0                      |   |
| Implement individual  | Very         | Improvement *                         | Complete    | Sprint 06                | @November 17, 2022 16:35 | @November 18, 2022 15:41 | 3                      | Now do this Do not refresh page when changing chat. Clear history, info and users   |
| chats Change IDOR (Insecure Direct Object Reference) when showing the chat URL  | high<br>High | Bug inprovement in Security is        | Complete    | Sprint 06                | @November 18, 2022 20:54 | @November 20, 2022 0:22  | 8                      | Check this video for explanation: https://www.youtube.com/watch?v=rlogMGcPMkl IDOR - fix with new reducer in frontend (history of all pages visited)                          |
| View profile functionality.  Username is used in  URL   | Medium       | Improvement A                         | In Progress | Sprint 06                | @November 20, 2022 2:06  |                          |                        |   |
| Teacher routes in frontend  | Medium       | Improvement 🚀                         | In Progress | Sprint 06                | @November 20, 2022 12:37 |                          |                        |   |
| Improve observability with Grafana  | Medium       | Configuration *                       | Complete    | Sprint 06                | @November 27, 2022 0:14  | @December 7, 2022 17:15  | -1                     | https://grafana.com/blog/2022/04/26/set-up-and-observe-a-spring-boot-application-<br>with-grafana-cloud-prometheus-and-opentelemetry/. Also add Loki for managing the<br>logs |
| Send logs to Grafana<br>with Loki   | High         | Improvement 🚀                         | Complete    | Sprint 06                | @December 5, 2022 20:00  | @December 7, 2022 1:00   | 16                     | Improve by making a custom archive to send the logs to and read from that   |
| Refactor commands in backend  | Medium       | Refactor 🏋                            | Complete    | Sprint 06                | @December 10, 2022 2:00  | @December 10, 2022 3:00  | 0                      | New record with several fields and removed from the CommandStrategy interface   |
| Add new commands for fun (roll a dice, 8 ball,)   | Low          | Improvement 🚀                         | Complete    | Sprint 07                | @December 10, 2022 3:40  | @December 16, 2022 3:00  | -1                     |   |
| Add support for multi-<br>parameter commands<br>and multiple commands<br>in one message   | High         | Bug *                                 | Complete    | Sprint 07                | @December 11, 2022 0:00  | @December 13, 2022 0:36  | 24                     | Implement a parser in backend to correctly send messages. It must support multiple parameters for a command and several commands in one message                               |
| Send mention message<br>to the mentioned user to<br>notify in frontend  | Medium       | Improvement 🎻                         | Complete    | Sprint 07                | @December 16, 2022 1:40  | @December 16, 2022 20:07 | 12                     |   |
| Mark html containing the<br>mentioned user  | Low          | Improvement 🚀                         | Complete    | Sprint 07                | @December 16, 2022 20:46 | @December 17, 2022 0:13  | 1                      |   |
| Know how to add<br>custom stats to send to<br>Prometheus  | Medium       | Configuration *                       | Complete    | Sprint 07                | @December 17, 2022 2:49  | @December 17, 2022 3:20  | 0                      | https://fabianlee.org/2022/06/29/java-adding-custom-metrics-to-spring-boot-micrometer-prometheus-endpoint/  |
| When sending a non-<br>text message, the<br>Handler crashes<br>because the content<br>could not be read as<br>normal text.                                | Very<br>high | Bug 🐞                                 | Complete    | Sprint 07                | @December 17, 2022 20:35 | @December 17, 2022 22:57 | 1                      | Check the type before the content   |
| Teacher service to get data   | High         | Task 🔨                                | Complete    | Sprint 07                | @December 18, 2022 2:08  | @December 18, 2022 4:00  | 0                      |   |
| Add teacher to subject by administrator   | High         | Improvement */ Task *                 | Complete    | Sprint 07                | @December 18, 2022 14:52 | @December 21, 2022 17:44 | 28                     | 2 columns in UI: Left with teacher names and id, Right with subject names. With a search bar for each column  |
| Fix /dice command. Page crashes   | Very<br>high | Bug 🐞                                 | Complete    | Sprint 07                | @December 21, 2022 0:20  | @December 21, 2022 0:50  | 0                      |   |
| Add Quartz lib to schedule all the tasks.   | Medium       | Improvement 🚀                         | Cancelled   | Sprint 08                | @January 15, 2023 13:50  | @January 15, 2023 14:00  | 0                      |   |
| Refactor of if statements<br>in Policies class to use<br>Yavi validation library  | Very<br>high | Improvement  Refactor                 | Complete    | Sprint 08                | @January 20, 2023 12:35  | @January 20, 2023 23:42  | 3                      |   |
| Add teachers to degree by administrator   | Very<br>high | Improvement A                         | Complete    | Sprint 08                | @January 22, 2023 16:19  | @January 22, 2023 17:15  | 0                      | Teachers are added implicitly to the degrees when they are added to a subject. Modify admin dashboard to show the degree of each subject                                      |
| Huge refactor to use<br>JPA Buddy when<br>generating entities and<br>relationships  | Critical     | Refactor 🋠                            | Complete    | Sprint 08                | @January 22, 2023 17:34  | @January 24, 2023 21:46  | 24                     | https://www.youtube.com/watch?v=DC6FrC4olhE   |
| File caching to not read files from disk all times  | Very<br>high | Improvement 🚀                         | Complete    | Sprint 08                | @January 25, 2023 15:54  | @January 26, 2023 0:32   | 3.5                    |   |
| Implement pagination of the chat history  | Medium       | Improvement */ Task *                 | Complete    | Sprint 08                | @January 25, 2023 15:54  | @January 26, 2023 16:38  |                        | Add a "Show more" button in the top of the chat   |
| Spring migration from 2.7.0 to 3.0.2  | High         | Improvement  Refactor  Security  Task | Complete    | Sprint 08                | @January 26, 2023 16:45  | @January 26, 2023 22:00  | 1.6                    |   |
| Add JWTService class<br>and change library to<br>jjwt   | Low          | Refactor 🛠                            | Complete    | Sprint 08                | @January 26, 2023 22:06  | @January 27, 2023 1:58   | 2.4                    |   |
| Delegate functionality to<br>Chat class instead of<br>ChatManagement  | High         | Improvement ** Refactor **            | Complete    | Sprint 08                | @January 30, 2023 2:10   | @January 30, 2023 4:24   | 0                      | Also improved code readability of both classes  |
| Mappings for Upload<br>strategies   | High         | Improvement 🚀                         | Complete    | Sprint 08                | @January 30, 2023 20:34  | @January 30, 2023 21:05  | 0                      | Instead of using Map, an ArrayList of new value object is used  |
| Bugfix: history file is<br>deleted from disk after<br>10 minutes (scheduled<br>task) but should not be<br>deleted unless there is<br>no users in the chat | Very<br>high | Bug 🐞                                 | Complete    | Sprint 08                | @January 30, 2023 23:45  | @January 30, 2023 23:53  | 0                      |   |
| Bugfix: uri is not a<br>property in messages, it<br>was changed to path<br>Close all sessions does  | Critical     | Bug 🐞                                 | Complete    | Sprint 08                | @January 31, 2023 0:20   | @January 31, 2023 0:25   | 0                      |   |
| not work well (after<br>doing it. I continued to<br>the chat page in other<br>tab).   | High         | Bug 🐞                                 | Complete    | Sprint 08                | @January 31, 2023 13:20  | @January 31, 2023 14:10  | 0                      |   |
| Implement rate limit to<br>avoid spamming a lot of<br>messages in short time  | High         | Improvement 🚀                         | Complete    | Sprint 08                | @February 1, 2023 0:40   | @February 1, 2023 15:24  | 8                      | Messages that are sent after the notification of TOO_FAST_MESSAGE are deleted from the user chat view   |
| Big refactor to inject<br>some objects to<br>message strategies   | High         | Improvement  Refactor  K              | Complete    | Sprint 08                | @February 1, 2023 19:38  | @February 1, 2023 21:06  | 0                      |   |
|   |              |                                       |             |                          |                          |                          |                        |   |

| Aa Projects   | Priority     | <b>≡</b> Туре                         | ;∜ Status   | <ul><li>⊙ Sprint</li></ul> | ☐ Started                | ☐ Finished               | #<br>Inactivity<br>(h) | ≡ Notes   |
|---|--------------|---------------------------------------|-------------|----------------------------|--------------------------|--------------------------|------------------------|---|
| Rank system, get a chat<br>badge (or different<br>colors) when user has<br>written a lot of<br>messages                             | Very<br>low  | Idea 🧠                                | Complete    | Sprint 08                  | @February 6, 2023 0:47   | @February 7, 2023 3:52   | 10                     | This implies changes to the database, temporal changes made with red (in the drawings)  |
| Create the design of the badges   | Medium       | Task 🔨                                | Complete    | Sprint 08                  | @February 7, 2023 11:50  | @February 7, 2023 16:48  | 2                      | https://badge.design/ https://pictogrammers.com/library/mdi/ https://vectorink.io/app/  |
| Badge view in profile or<br>new page  | Medium       | Improvement 🚀                         | Complete    | Sprint 08                  | @February 7, 2023 18:30  | @February 8, 2023 20:53  | 0                      | Also added stats  |
| Fix serialization<br>problems of JsonObject<br>when sending<br>responses  | Very<br>high | Improvement 🎻                         | Complete    | Sprint 08                  | @February 8, 2023 1:05   | @February 8, 2023 2:50   | 0.5                    | New Serializers for ObjectMapper  |
| Revise the JSON.parse<br>method calls in frontend<br>to check if they must be<br>removed since the<br>JSON is sent correctly<br>now | High         | Task 🔨                                | Complete    | Sprint 08                  | @February 8, 2023 12:32  | @February 8, 2023 17:21  | 1                      |   |
| When reconnecting to a<br>chat, the history is not<br>retrieved   | Very<br>high | Bug 🐞                                 | Complete    | Sprint 08                  | @February 8, 2023 19:30  | @February 8, 2023 19:48  | 0                      | Detected in websocket readyState  |
| New DTO for handling. commands. Other users should not  | Medium       | Refactor 🛠                            | Complete    | Sprint 08                  | @February 9, 2023 2:00   | @February 9, 2023 2:15   | 0                      |   |
| receive the command<br>message if it is for own<br>use. Mentions are sent<br>to all users   | Medium       | Improvement 🚀                         | Complete    | Sprint 08                  | @February 9, 2023 11:55  | @February 9, 2023 14:31  | 0.5                    |   |
| Move command<br>instantiation to its class<br>as static members   | Medium       | Improvement  Refactor  K              | Complete    | Sprint 08                  | @February 9, 2023 21:18  | @February 9, 2023 21:53  | 0                      |   |
| Count the commands<br>used and save it in the<br>user's column in db  | Low          | Improvement 🚀                         | Complete    | Sprint 08                  | @February 9, 2023 21:54  | @February 9, 2023 22:14  | 0                      |   |
| Eix problems when<br>sending a media<br>message after<br>uploading it   | Very<br>high | Bug 🐞                                 | Complete    | Sprint 08                  | @February 10, 2023 2:00  | @February 10, 2023 2:30  | 0                      |   |
| DTO for upload<br>strategies  | Low          | Refactor 🎇                            | Complete    | Sprint 08                  | @February 10, 2023 2:48  | @February 10, 2023 3:01  | 0                      |   |
| Remove from<br>shouldNotSomething<br>tests the given save to<br>the repository  | High         | Refactor ** Test /                    | Complete    | Sprint 09                  | @February 14, 2023 1:31  | @February 14, 2023 2:08  | 0                      | Also improved existing tests and added more   |
| Script to update secrets in GitHub for tests  | High         | Improvement  Security  Test           | Complete    | Sprint 09                  | @February 14, 2023 14:08 | @February 14, 2023 20:04 | 4                      |   |
| Controller tests with<br>MockMvc  | Medium       | Improvement A                         | In Progress | Sprint 09                  | @February 15, 2023 0:55  |                          | 13                     | See description for more details  |
| New implementation for<br>HttpServletResponse to<br>be able to test the<br>controllers  | Medium       | Refactor 🋠                            | Complete    | Sprint 09                  | @February 16, 2023 1:38  | @February 17, 2023 20:13 | 18                     |   |
| Refactor of<br>HttpResponse, back to<br>previous<br>implementation.   | Critical     | Bug * Improvement * Refactor * Test * | Complete    | Sprint 09                  | @February 18, 2023 17:16 | @February 18, 2023 18:51 | 0.5                    |   |
| Integration tests   | Very<br>high | Improvement A                         | In Progress | Sprint 09                  | @February 20, 2023 17:05 |                          |                        | https://reflectoring.io/spring-boot-test/ Disable some beans to avoid conflicts in tests  |
| Make the MailSender a component   | Medium       | Configuration 🎄                       | Cancelled   | Sprint 09                  | @February 21, 2023 23:30 | @February 21, 2023 23:50 | 0                      |   |
| Update policies<br>messages   | High         | Bug 🐞                                 | Complete    | Sprint 09                  | @February 22, 2023 0:23  | @February 22, 2023 1:38  | 0                      | message() call overrides the default message assigned to the constraint   |
| Fix email sender  | Critical     | Bug 🐞                                 | Complete    | Sprint 09                  | @February 23, 2023 2:00  | @February 23, 2023 2:54  | 0                      | Use the package spring-boot-starter-mail instead of javax.mail https://mkyong.com/spring-boot/spring-boot-how-to-send-email-via-smtp/   |
| Add a 'Copy code' in reset password email template  | Medium       | Task 🔨                                | Complete    | Sprint 09                  | @February 23, 2023 2:54  | @February 23, 2023 3:20  | 0                      |   |
| Single IntelliJ project<br>with all modules inside  | High         | Configuration 🔅                       | Complete    | Sprint 09                  | @February 25, 2023 0:29  | @February 25, 2023 0:42  | 0                      | Import as modules and that's it   |
| For image detection use<br>nsfwjs backend lib to<br>use the IA model  | High         | Improvement 🚀                         | Complete    | Sprint 09                  | @February 25, 2023 1:40  | @February 25, 2023 23:26 | 12                     | https://www.npmis.com/package/nsfwjs#node-js-app<br>https://github.com/tensorflow/itjs/issues/7273#issuecomment-1384413639  |
| Use magic-8-ball api for that chat command  | Medium       | Improvement */ Task *\                | Complete    | Sprint 09                  | @February 25, 2023 1:40  | @February 25, 2023 19:48 | 10                     | https://www.eightballapi.com/docs   |
| Send requests from the<br>FileController to the<br>utility NSFW service   | High         | Improvement 🊀                         | Complete    | Sprint 09                  | @March 11, 2023 2:35     | @March 11, 2023 5:34     | 0                      | Store the file before the request and send the path to the NSFW service, remove sutter lib from the service, since it is not used. For making the requests settleplate is useful.   |
| Add friends   | Medium       | Improvement 🚀                         | Complete    | Sprint 10                  | @March 11, 2023 14:00    | @March 12, 2023 3:18     | 8                      | Disable users from sending messages themselves, if users see their own profile, go to the profile page (both new functionality)   |
| Block users   | Medium       | Improvement 🚀                         | Complete    | Sprint 10                  | @March 11, 2023 16:00    | @April 5, 2023 13:00     | -1                     |   |
| Dockerize rs-chat-utils<br>services   | Very<br>high | Configuration *                       | Complete    | Sprint 10                  | @March 11, 2023 17:45    | @March 14, 2023 3:14     | 36                     | https://github.com/tensorflow/ttjs/issues/1425/issuecomment-596197404 I have to build tensorflow from source or downgrade to 1.5. After compiling from source (6.7 h) found version https://github.com/yaroslavvb/tensorflow-community-wheels/issues/217  |
| Python  | Critical     | Bug *                                 | Complete    | Sprint 10                  | @March 12, 2023 13:57    | @March 14, 2023 2:49     | 24                     | https://bythonspeed.com/articles/activate-virtualenv-dockerfile/<br>https://stackoverflow.com/questions/30215830/dockerfile-copy-keen-subdirectory-<br>structure/Needed to set the Internet Address to 0.0.0.0 to be able to receive external<br>requests |
| Set to users the block<br>date when several<br>NSFW content is<br>uploaded to chats   | High         | Improvement 🚀                         | Complete    | Sprint 10                  | @March 21, 2023 23:00    | @March 21, 2023 23:56    | 0                      |   |
| Prepare environment to perform frontend tests   | High         | Configuration 🔆                       | Complete    | Sprint 10                  | @March 30, 2023 1:00     | @March 30, 2023 1:10     | 0                      | Simple jest execution   |

| Parinata  |              | - 7                       | ili Cara    | O. Comint | = Chand               |                       | #   | ≡ Notes   |
|---|--------------|---------------------------|-------------|-----------|-----------------------|-----------------------|-----|---|
| Aa Projects   | Priority     | :≡ Type                   | e/e Status  | Sprint    | ☐ Started             | ☐ Finished            | (h) | Notes   |
| Add more CI steps for testing   | Medium       | CI/CD in Improvement A    | Complete    | Sprint 10 | @March 30, 2023 13:56 | @March 30, 2023 15:15 | 0.5 |   |
| Kick the users out of the<br>session when they<br>upload the last NSFW<br>content   | High         | Improvement 🚀             | Complete    | Sprint 10 | @April 5, 2023 2:03   | @April 5, 2023 3:29   | 0   |   |
| Check run conditions<br>when uploading several<br>images at once when<br>performing the request<br>to the Python API            | Very<br>high | Bug 🐞                     | Complete    | Sprint 10 | @April 5, 2023 3:43   | @April 5, 2023 4:06   | 0   | When uploading 5 nshv images, in the DB is stored only 4 (in the user nshv_count column). <a href="https://lstackoverflow.com/questions/30346882/do-synchronized-java-methods-queue-calls">https://lstackoverflow.com/questions/30346882/do-synchronized-java-methods-queue-calls</a> |
| If user is blocked, do not allow to enter the app   | High         | Improvement 🚀             | Complete    | Sprint 10 | @April 5, 2023 4:10   | @April 5, 2023 4:20   | 0   | Very easy. Added a single check in the Togin endpoint and a pretty format   |
| When sending a server<br>message, the type must<br>be a generic one.  | High         | Refactor 🛠                | Complete    | Sprint 10 | @April 5, 2023 13:00  | @April 5, 2023 13:12  |     | Create a constant and update all usages of the createlessage function   |
| Fix not showing the<br>images when uploading  | Very<br>high | Bug 🐞                     | Complete    | Sprint 10 | @April 6, 2023 15:57  | @April 6, 2023 16:20  | 0   | Resources are uploaded to the wrong folder in S3 (uppercase) and should be stored inside the lowercase ones   |
| Make a form to get<br>feedback from users   | Very<br>high | Research 🚵                | Complete    | Sprint 10 | @April 6, 2023 16:00  | @April 8, 2023 16:00  | 18  |   |
| Fix pdf not showing   | Very<br>high | Bug 🐞                     | Complete    | Sprint 10 | @April 7, 2023 15:25  | @April 7, 2023 16:42  | 0   | CORS policy has incorrect Allowedorigins prop   |
| Configure the CORS<br>policy when checking<br>connectivity to the<br>bucket   | High         | Improvement A             | Complete    | Sprint 10 | @April 7, 2023 16:42  | @April 7, 2023 22:03  | 1.5 |   |
| Fix app crash when<br>sending a command<br>that is unavailable  | Critical     | Bug 🐞                     | Complete    | Sprint 10 | @April 10, 2023 3:08  | @April 10, 2023 4:34  | 0   | Added NoOp command  |
| When showing command stats in profile, the app crashes (see image).   | Critical     | Bug 🐞                     | Complete    | Sprint 10 | @April 10, 2023 12:35 | @April 10, 2023 14:52 | 0.7 | An object (command stats) is stored inside, and the app does not support that.  |
| Improve session display<br>in frontend (show dates,<br>and the index is the id of<br>the session).                              | Medium       | Improvement 🚀             | Complete    | Sprint 10 | @April 10, 2023 14:52 | @April 10, 2023 17:03 | 0   |   |
| When users upload<br>several NSFW images,<br>block them for a period<br>of time   | Medium       | Improvement A             | Reference   | Sprint 10 |                       |                       | 0   | Set to users the block date when several NSFW content is uploaded to chats  |
| When inviting someone to a chat, send an email to the user to notify the invitation. The user is added to the chat immediately. | Medium       | Improvement 🚀             | Complete    | Sprint 11 | @April 11, 2023 2:05  | @April 12, 2023 3:30  | 12  | Instead of a command, do a button near chat name and send a real request. This allows to ease the process of DI and send the email to the user.   |
| Refactor Utils class to<br>not be named like that   | Low          | Documentation Refactor ** | Complete    | Sprint 11 | @April 30, 2023 3:25  | @April 30, 2023 3:58  | 0   |   |
| Fix bug not sending email on invitation   | High         | Bug 🐞                     | Complete    | Sprint 11 | @May 1, 2023 1:40     | @May 1, 2023 1:57     | 0   | Instead of using the email, it was used the username of the invetee. Used Tuple to return the chat and the user from the lambda.  |
| Remove the /invite<br>command   | Medium       | Refactor X                | Complete    | Sprint 11 | @May 1, 2023 13:20    | @May 2, 2023 13:40    | 0   | Added the invite button in chat view  |
| Use Optional <t> in all return types from the repository</t>  | High         | Refactor 🛠                | Complete    | Sprint 11 | @May 3, 2023 12:39    | @May 3, 2023 12:44    | 0   |   |
| Refactor exception<br>handling in controllers<br>with @ControllerAdvice   | Medium       | Refactor 🋠                | In Progress | Sprint 11 | @May 7, 2023 2:31     |                       |     | https://reflectoring.io/spring-boot-exception-handling/   |
| Fix error in profile view   | Medium       | Bug 🐞                     | Revision    | Sprint 11 |                       |                       |     |   |
| Add Report page for<br>admins and display all<br>the report notifications   | Low          | Improvement 🚀             | Not Started |           |                       |                       |     |   |
| Video handling with lib   | UNSET        | Idea 🧠                    | Not Started |           |                       |                       |     | https://github.com/kokorin/Jaffree https://github.com/Manevolent/ffmpeg4j   |
| Fix Redux localstorage<br>modification by checking<br>the username of the<br>token in the backend.                              | Very<br>high | Bug 🐞                     | Not Started |           |                       |                       |     | Also the storage should be changed to other with more security  |
| New design when<br>sending nsfw media<br>Send the session ip in<br>the login and register<br>response to identify the           | Medium       | Improvement  Improvement  | Not Started |           |                       |                       |     | The user can see the image, but other users cannot  |
| session in the profile<br>view  Do not store empty.   |              |                           |             |           |                       |                       |     |   |
| commands  | Medium       | Bug 🀞                     | Not Started |           |                       |                       |     |   |
| Improve command parsing   | Medium       | Improvement  Refactor     | Not Started |           |                       |                       |     |   |
| Improve blocked users<br>and friends functionality<br>and relationships in db   | Low          | Refactor 🛠                | Not Started |           |                       |                       |     |   |
| Chats with limited number of members  | To<br>define | Idea 🧠                    | Not Started |           |                       |                       |     |   |
| Create group by every user (private or public)  | Low          | Improvement 🚀             | Not Started |           |                       |                       |     |   |
| Unread messages<br>balloon notification   | Medium       | Improvement 🚀             | Not Started |           |                       |                       |     |   |
| Multiple chat tabs  | Medium       | Improvement 🚀             | Not Started |           |                       |                       |     |   |
| Webcam integration  | To<br>define | Idea 🧠                    | Not Started |           |                       |                       |     | $\underline{https://primefaces.github.io/primefaces//sdocs/modules/src\_PrimeFaces.Webcam.html}$  |
| Age verification  | Low          | Improvement 🚀             | Not Started |           |                       |                       |     |   |

| Aa Projects  | Priority     | <b>≡</b> Туре                   | ् Status    | <ul><li>Sprint</li></ul> | ☐ Started | ☐ Finished               | #<br>Inactivity<br>(h) | ■ Notes  |
|--|--------------|---------------------------------|-------------|--------------------------|-----------|--------------------------|------------------------|--|
| Improve friends<br>functionality to not add<br>symmetric rows to DB  | Medium       | Improvement  Refactor           | Not Started |                          |           |                          |                        | To represent friends, with only one relation suffices (or look for other techniques).  |
| Report user form and send a notification to administrators of a new report.  | Medium       | Improvement 🚀                   | Not Started |                          |           |                          |                        |  |
| When the chat passes 1<br>month, delete the<br>history.  | Medium       | Idea 🧠                          | Not Started |                          |           |                          |                        |  |
| Integrate the Keras NSFW model to Java (new service or integrated in the app)  | Low          | Idea 🧠                          | Cancelled   |                          |           | @March 11, 2023 2:30     |                        | https://towardsdatascience.com/deploying-keras-deep-learning-models-with-java-<br>62d80464f34a   |
| Use WebTau for E2E<br>tests (for test the API)   | High         | Improvement ** Test /*          | Cancelled   |                          |           | @February 21, 2023 23:30 |                        | https://github.com/testingisdocumenting/webtau   |
| Make all strategies a  @Component, to be able to inject attributes   | Low          | Improvement 🚀                   | Cancelled   |                          |           |                          |                        | See <u>Big refactor to inject some objects to message strategies</u> . Strategies do not have the annotation but all the needed arguments are passed to the constructor of the strategy from the Mappings class (this is a @Component class) |
| Replace single MIME<br>type for files with the full<br>MIME type name  | Medium       | Refactor 🛠                      | Cancelled   |                          |           | @January 31, 2023 23:30  | -1                     | This change would affect the storage of the files in S3 bucket   |
| Image recognition with deeplearning4j library  | Medium       | Improvement 🚀                   | Cancelled   |                          |           | @February 25, 2023 0:13  |                        | https://medium.com/datactw/image-classification-neural-network-tutorial-getting-<br>started-with-deep-learning-for-java-dl4j-b36372aad656<br>https://www.baeldung.com/java-cnn-deeplearning4j  |
| Possibility to add a proxy between the client and the server   | UNSET        | Idea  Improvement  Security     | Not Started |                          |           |                          |                        |  |
| Go down button with<br>small number icon to<br>specify the received<br>messages  | Medium       | Improvement 🚀                   | Not Started |                          |           |                          |                        |  |
| 30k lines of code 50k  | Critical     |                                 | Complete    |                          |           | @January 26, 2023 3:35   |                        |  |
| Administration button to close/open chats and send to home the connected users   | Low          | Improvement 🚀                   | Cancelled   |                          |           | @January 31, 2023 23:06  |                        |  |
| Special rooms for games  | Very<br>low  | Idea 🧠                          | Not Started |                          |           |                          |                        | TicTacToe, Bingo   |
| Improve the security of<br>my home Wi-Fi and<br>network  | High         | Research 🏂                      | Not Started |                          |           |                          |                        |  |
| Add relations to entities to reduce queries  | Low          | Refactor 🛠                      | Reference   |                          |           |                          |                        | See <u>Huge refactor to use JPA Buddy when generating entities and relationships</u>   |
| Make a table to display command help in frontend   | Low          | Improvement 🚀                   | Not Started |                          |           |                          |                        |  |
| Fix Force Browsing the<br>images in S3 bucket  | Very<br>high | Bug * Improvement * Security *  | Not Started |                          |           |                          |                        | See Change IDOR (Insecure Direct Object Reference) when showing the chat URL   |
| When user has friends<br>and they are connected<br>to the same chat, the<br>first active users shown<br>must be that friends                 | Low          | Improvement A                   | Not Started |                          |           |                          |                        |  |
| Improve going back and forward with mouse buttons  | Medium       | Improvement 🚀                   | Not Started |                          |           |                          |                        | Store the location where the user joined the page and if there are no more entries to go back, go to that location.  |
| Do not refresh page<br>when changing chat.<br>Clear history, info and<br>users   | High         | Improvement ** Task *           | Cancelled   |                          |           | @November 20, 2022 0:20  |                        |  |
| Application statistics.  Maybe other application using SQS locally?  | Medium       | Improvement 🚀                   | Reference   |                          |           |                          |                        | Ref: Chat statistics - Per user, number of messages, words written   |
| Reconnect button in<br>ToolBar   | Medium       | Improvement 🚀                   | Not Started |                          |           |                          |                        | Might not be needed  |
| An 'ActiveUsers'<br>message is sent after<br>the client closes a chat  | High         | Bug 🐞                           | Ignore      |                          |           |                          |                        | It is a message to get all the active users when one leaves the chat. No problem   |
| Migrate useEffect with API calls with useQuery   | Medium       | Improvement 🚀                   | Not Started |                          |           |                          |                        |  |
| Send information<br>message when the<br>deployment is going to<br>be done  | High         | Configuration *                 | Not Started |                          |           |                          |                        |  |
| Add to the name of the subjects and groups a random String at the end to support repeated names. but not show it when retrieving information | Medium       | Task 🔨                          | Not Started |                          |           |                          |                        |  |
| Block users for 10<br>minutes when they<br>introduce a wrong<br>password   | Medium       | Improvement #                   | Not Started |                          |           |                          |                        | See description for more details   |
| Poll system integrated in the chat   | Very<br>low  | Idea 🧠                          | Not Started |                          |           |                          |                        |  |
| Create email server at home  | High         | Configuration *                 | Not Started |                          |           |                          |                        |  |
| Make dockerfiles to<br>have a dev and prod<br>containers of the<br>backend   | Very<br>high | Configuration ** Improvement ** | Cancelled   |                          |           |                          |                        | Unnecessary. Background processes can be used  |

|   |              |                                |             |                          |   |                         | 44                     |   |
|---|--------------|--------------------------------|-------------|--------------------------|---|-------------------------|------------------------|---|
| Aa Projects   | Priority     | :≡ Туре                        | : Status    | <ul><li>Sprint</li></ul> | Started     ■ Started | Finished                | #<br>Inactivity<br>(h) | ■ Notes   |
| Fix general crashes of the app  | Critical     | Bug 🐞                          | TempCancel  |                          |   |                         |                        |   |
| Active users table have repeated usernames  | High         | Bug 🐞                          | TempCancel  |                          |   |                         |                        |   |
| (users from mobile) Sound must be played on every message (fix hook to execute completely and not   | Low          | Bug 🐞                          | TempCancel  |                          |   |                         |                        |   |
| pause the sound).  When mobiles quit browser when they are inside the chat, the WS crashes  | Very<br>high | Bug 🐞                          | Not Started |                          |   |                         |                        | Server must be restarted to enable users to use the chat again  |
| When a user wants to add another to a group, show all the available groups to that person to select one, to copy the invitation code with instructions or send an email | Very<br>low  | Idea 🧠                         | Not Started |                          |   |                         |                        |   |
| Implementación de algo<br>de funcionalidad más<br>especial. Papers  | Very<br>low  | Idea 🧠                         | Not Started |                          |   |                         |                        |   |
| EIX: max width in image<br>dialog is not correct.<br>See the image sent by<br>amigueldiez   | Medium       | Bug 🐞                          | Not Started |                          |   |                         |                        |   |
| Add chat tabs to have<br>several opened at the<br>same time   | Low          | Improvement 🚀                  | Not Started |                          |   |                         |                        |   |
| Add response<br>messages by pressing a<br>button or making double<br>click  | Medium       | Improvement 🊀                  | Not Started |                          |   |                         |                        |   |
| FIX: when a user<br>receives a message and<br>the image is opened,<br>the dialog is closed for<br>some reason   | Medium       | Bug 🐞                          | Not Started |                          |   |                         |                        |   |
| Check the indexes in<br>the LaTeX document to<br>correctly generate the<br>numbers  | High         | Documentation                  | Cancelled   |                          |   |                         |                        |   |
| Apply observer pattern<br>when users join a chat  | Medium       | Improvement 🚀                  | Not Started |                          |   |                         |                        | Watch video   |
| Get all the users that<br>belong to a chat and put<br>a small green icon to<br>those connected (show<br>first), those<br>unconnected with a red<br>icon and last        | Very         | Idea 🧠 Improvement 🚀           | Not Started |                          |   |                         |                        |   |
| Remove checks on register. Only show error when server sends the response   | High         | Refactor 🋠                     | Cancelled   |                          |   |                         |                        |   |
| GET request to a URL with an invitation code as a parameter. Then, the user can join the chat if user is not joined and redirected to it in both cases (joined or not). | Very         | Idea 🧠                         | TempCancel  |                          |   |                         |                        |   |
| Group multiple<br>images/videos in one<br>message   | Low          | Improvement 🚀                  | Not Started |                          |   |                         |                        | New message type constant and component   |
| Zoom on scroll (in images)  Add a small dropdown  | Medium       | Improvement 🚀                  | Not Started |                          |   |                         |                        |   |
| to select the type of file the user is going to send Chat statistics - Per  | High         | Improvement 🚀                  | Not Started |                          |   |                         |                        |   |
| user, number of<br>messages, words<br>written   | Very<br>low  | Idea 🧠                         | Not Started |                          |   |                         |                        |   |
| Replace disk reads for<br>memory reads when<br>reading chat history<br>Solve problems of  | Very<br>low  | Idea 🧠                         | Not Started |                          |   |                         |                        |   |
| websocket connections in remote  Discover the limit to  | Critical     | Bug 🐞                          | Cancelled   |                          |   |                         |                        | There are no problems now (next day). Because the chat was closed and the history file was uploaded, so no errors occur |
| send data through WS<br>to frontend   | High         | Refactor 🏋                     | Cancelled   |                          |   | @September 5, 2022 0:29 |                        |   |
| Check this lib to support<br>message compression<br>in frontend. Must be<br>implemented in backend<br>since it is written in Java                                       | Very<br>low  | Improvement A                  | TempCancel  |                          |   |                         |                        |   |
| See this to send partial data (maybe)   | Very<br>low  | Idea (%) Improvement  Refactor | TempCancel  |                          |   |                         |                        | Maybe change by this  |
| Add a reducer for chat<br>and store the current<br>chat   | Medium       | Improvement 🚀                  | TempCancel  |                          |   |                         |                        | Update it before going to the page and take it from the state to show its name in the chat view                         |

| Aa Projects   | Priority    | := Туре                       | -¦⊱ Status  | <ul><li>Sprint</li></ul> | ☐ Started | Finished              | #<br>Inactivity<br>(h) | ■ Notes  |
|---|-------------|-------------------------------|-------------|--------------------------|-----------|-----------------------|------------------------|--|
| Add a global variable in redux state and a custom hook to get the websocket client only when the variable is true (userLoggedin), if false, create client and then return. This will work like the color theme. | Medium      | Improvement ** Refactor ** ** | Cancelled   |                          |           |                       |                        | It is implemented with a React Context                                   |
| Remove sessionId of<br>the user both in frontend<br>and backend   | Medium      | Refactor 🛠                    | Revision    |                          |           |                       |                        | Could be kept to support multi-session connections                       |
| Try the reconnection of<br>the WebSocket in<br>frontend   | Medium      | Improvement 🚀                 | Complete    |                          |           |                       |                        | Reference Send a ping message from frontend to keep the connection alive |
| If several messages are<br>received from the same<br>sender, do not render<br>the username  | Very<br>low | Idea 🧠                        | Not Started |                          |           |                       |                        |  |
| Add support to compute the color hash that a user has.  | Very<br>low | Idea 🧠                        | Not Started |                          |           |                       |                        |  |
| Classes diagram   | High        | Documentation                 | Not Started |                          |           |                       |                        |  |
| Interaction diagram   | High        | Documentation                 | Not Started |                          |           |                       |                        |  |
| Packages diagram  | High        | Documentation                 | Not Started |                          |           |                       |                        |  |
| Send a confirmation<br>email to new registered<br>users   | Medium      | Security 🔒 Task 🔨             | Not Started |                          |           |                       |                        |  |
| Add the service files to the frontend   | Medium      | Task 🔨                        | Ignore      |                          |           |                       |                        |  |
| Move ChatMap<br>functionality to Chat<br>class  | Low         | Refactor ** Task *            | Not Started |                          |           |                       |                        |  |
| Use a context in private routes to encapsulate a single WebSocket for all the session   | High        | Improvement                   | Cancelled   |                          |           | @August 4, 2022 22:30 |                        |  |
| Upload images from<br>frontend with drag 'n'<br>drop and encode into<br>base64  | High        | Task 🔨                        | Reference   |                          |           |                       |                        |  |
| Add random generated<br>string at the end of<br>media files   | Medium      | Improvement **  Task *        | Not Started |                          |           |                       |                        |  |
| Get all files that a user has sent over the time  | Very<br>low | Idea 🧠                        | Not Started |                          |           |                       |                        |  |
| Achievements' system  | Very<br>low | Idea (%) Improvement 🊀        | Not Started |                          |           |                       |                        |  |
| Migrate from native<br>WebSocket to SockJS<br>and   | Medium      | Refactor 🛠                    | Cancelled   |                          |           | @July 30, 2022 23:00  |                        | See <u>update</u> . Tested but it did not work.                          |
| If up arrow key is<br>pressed, visit the<br>message history.  | Very<br>low | Idea 🧠                        | Not Started |                          |           |                       |                        |  |
| Limit rate at which users<br>can send messages to 6<br>per second   | Very<br>low | Idea 🧠 Improvement 🚀 Task 🔨   | Not Started |                          |           |                       |                        |  |
| Return an existing<br>session to the user that<br>logs in with other host   | Very<br>low | Idea  Improvement  Task       | Not Started |                          |           |                       |                        |  |
| Logout check  | Low         |                               | Not Started |                          |           |                       |                        |  |
| Messages could be   | Very        | Idea @                        |             |                          |           |                       |                        |  |
| fragmented. Add an<br>attribute in the JSON<br>File writing from several  | low         | Idea 🧠                        | Cancelled   |                          |           |                       |                        |  |
| threads (maybe use synchronized)  | Low         |                               | Cancelled   |                          |           |                       |                        |  |
| When hovering the date<br>of the message, show<br>full date (with<br>millisecond precision)   | Low         | Task 🔨                        | Reference   |                          |           |                       |                        |  |
| Show a division of<br>messages per day.   | Low         | Task 🔨                        | Not Started |                          |           |                       |                        |  |
| Font size selector  | Low         | Improvement ** Task *\        | Not Started |                          |           |                       |                        |  |
| Enter the app as<br>anonymous user and<br>after the session is<br>closed, all the data,<br>messages, etc. is<br>deleted   | Very        | Idea 🧠                        | Cancelled   |                          |           |                       |                        |  |
| Change color themes to fit logo Home page with chat   | Low         | Improvement 🚀                 | Not Started |                          |           |                       |                        |  |
| selection<br>Forgot password  | Medium      | Task 🔨                        | Reference   |                          |           |                       |                        |  |
| functionality.  Documentation - All diagrams  | High        | Documentation                 | Not Started |                          |           |                       |                        |  |
| Ability to close all  | Medium      | Initialization 🎉              | Not Started |                          |           |                       |                        |  |
| sessions of the user SessionService update when refreshToken is   | Medium      | Task 🔨                        | Not Started |                          |           |                       |                        |  |
| used  |             |                               |             |                          |           |                       |                        |  |

| Aa Projects   | Priority    | :≡ Туре                      | ⊹ Status    | ⊕ Sprint | ☐ Started | ☐ Finished | #<br>Inactivity<br>(h) | ■ Notes |
|---|-------------|------------------------------|-------------|----------|-----------|------------|------------------------|---------|
| Document - Use cases  | High        | Documentation Initialization | Not Started |          |           |            |                        |         |
| Probar el módulo de<br>traducción en Frontend   | Very<br>low | Idea 🧠                       | Not Started |          |           |            |                        |         |
| Sistema de menciones  | Very<br>low | Idea 🧠<br>Research 🚵         | Not Started |          |           |            |                        |         |
| How To Build React with<br>Java Backend For<br>Production   by Bhargav<br>Bachina   Bachina Labs<br>  Medium  | Very<br>low | Idea 🧠<br>Research 🚵         | Complete    |          |           |            |                        |         |
| How To Develop and<br>Build React App With<br>Java Backend   by<br>Bhargav Bachina  <br>Bachina Labs   Medium | Very<br>low | Idea 🧠<br>Research 🚵         | Complete    |          |           |            |                        |         |