JusticeAI Iteration Summary

Iteration 6

Team Members

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Project Summary

JusticeAI (ProceZeus) is a web chat bot that aims to facilitate access to judicial proceedings involving specific domains of law. Users will have the ability to converse with the chatbot, describing in detail the situation for which they wish to pursue litigation. The system, which will leverage the power of machine learning and natural language processing, will guide the user through a process wherein they'll be prompted with a series of questions relating to their potential case allowing the system to ultimately determine, based on provincial jurisprudence, whether the user has a valid case worth pursuing in the judicial system. Alternatively, the system may also suggest remedies in lieu of legal action if it is deemed unlikely to be in the user's best interest.

Velocity

The primary focus of Iteration 6 was to create a fully-functional beta sign system that we can advertise during our guerilla marketing campaign. The process collected the user's questions and email addresses, which adds significant value by informing us of our user's needs and demands. During this iteration, we were able to complete **18** story points. This is slightly lower than our running velocity given a slight change in direction for this sprint (including the creation of a beta page) as well as a reduced time availability during the final exam and holiday seasons.

The following is a list of user stories that were completed in Iteration 6:

- #217 - Sign up to Procezeus by asking a tenant/landlord legal question (3 pts)
- #218 - Sign up for the Procezeus beta (3 pts)
- #161 - See previously understood facts (5 pts)
- #45 - Accept user feedback within system (3 pts)
- #159 - Remove English precedents from the dataset (3 pts)
- #213 - DEV STORY: Lint Fix for Iteration 6 (1 pt)

Plan for Next Iteration

In the next iteration, we will be focusing on polishing the beta page as well as starting the marketing of our application, so that we may obtain as many users and feedback as possible. Shown below are the user stories that we will be working on for iteration 7:

Iteration 7 (36 pts):

- #237 - DEV STORY: Research and implement production monitoring service (3 pts)
- #236 - DEV STORY: Research Reddit/Forums for popular tenant/landlord questions (3 pts)
- #235 - Adding FAQ Questions from RDL (8 pts)
- #234 - Polish UI of sign up page (8 pts)
- #232 - French Sign Up page (5 pts)
- #230 - Google Analytics (3 pts)
- #229 - Beta Web Client Vertical Responsive (Bug)
- #210 - Ask only fact questions that are relevant to lease resiliation (3 pts)
- #162 - Remove previously understood fact (3 pts)

Noteworthy Achievements

The main deliverable we produced for this iteration was our beta sign up page. This was done in preparation of our marketing and advertising efforts, with the intention of collecting a list of interested users and what they wish such a system would help them with. This was done to compensate for a party of our stakeholder not being able to furnish his pragmatically acquired list of frequently asked questions. These stories were chosen for Iteration 6, as our project was previously blocked by the fact that we had no indication of what sorts of question or demands our chatbot's users will realistically be subjected to. Obtaining this information will help us prioritize future features and ultimately inform the technical decisions we will need to make in architecting our system and training our machine learning model.

Technology, Architecture and Library Changes

There were no significant changes in the technology, architecture, or libraries throughout this iteration.

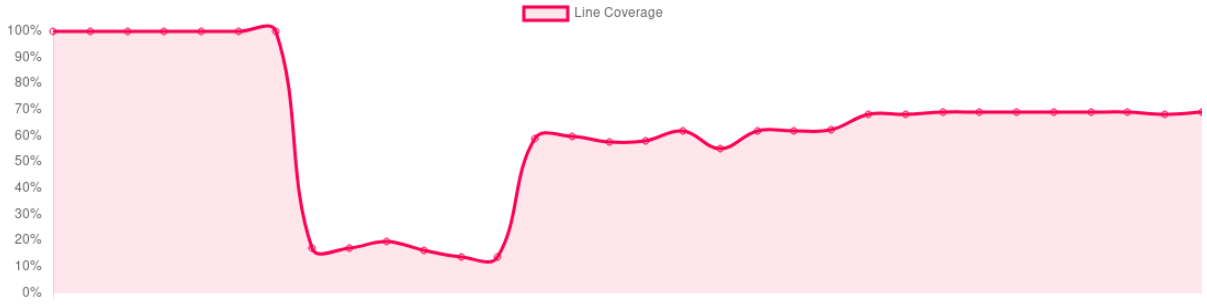
Continuous Integration Processes and Naming/Coding Changes

Instead of checking for correct linting within our CI/CD pipeline, we now have a developer story each sprint, where an individual will run the linting tools and clean the codebase in a commit. This was done based on feedback from previous retrospectives, where some members of team found the pace for merging their code was slower when linting would fail the CI build with minor code style errors.

Unit Tests and Code Coverage

At the time of this writing, our code line coverage is at 69.33%, with a total of 56 unit tests. The test breakdown per service is shown below.

Service	Number of unit tests	Line coverage %
ML Service	22	82.43 %
NLP Service	7	36.29%
Web Client	21	96.55%
Backend Service	6	40.08 %
Total	56	69.33%



Line coverage % over the time of JusticeAI.

We have maintained and even slightly increased our test coverage from our previous sprint.

Iteration 6 Retrospective

What went well

- Linting - Having a linting story rather than an automated checker makes everyone happy
- Sprint overall went well considering finals and the holidays. A lot of work was done considering the workload every member needs to take care of.
- Team adapted well to change in meeting location (acquired new backup meeting location)
- Team cohesion is still excellent

What went less well

- Standups didn't go well - Need to be consistent with our daily standups. Some members are missing reporting in every night and are nearly unreacheable.
- A meeting to discuss or perform a revision of the fact list didn't happen - People assigned to user story should take executive action rather than wait for the meeting to take place.
- Meeting place, libraries, etc. were closed which slowed down the work velocity of some of our members.