# CIS\*3760: Chatron - Milestone 1 Summary

Note: server may not be running at the moment, so trying to test the Slack bot or website interface, https://chatron.socs.uoguelph.ca/, may not work.

# **User Story #1**

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/2

# No Epics, Proper Format, Acceptance Criteria

- See user story: <a href="https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/2">https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/2</a>
  - It is a properly formatted user story: "As a <role>, I want [...] so that [...]"
  - It is a broken-down task that accomplishes a single thing, i.e. not an epic
    - Part of "Epic: Infrastructure Setup" (grey label)
  - o It has properly formatted acceptance criteria: "Given ... When ... Then ..."
    - As well as additional notes on desired outcome of the task

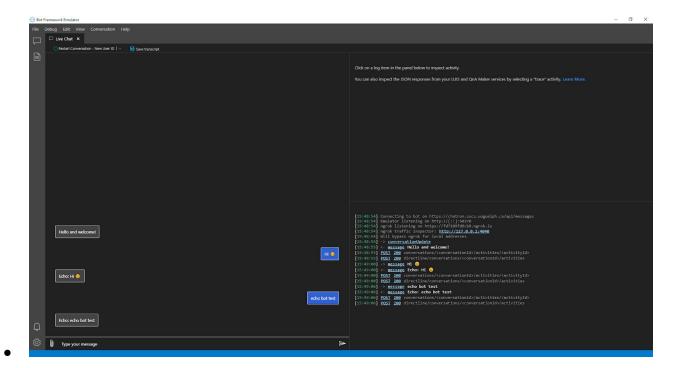
#### Deliverable

See user story acceptance criteria:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/2; and definition of done

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issu e-board-flow

 The client approved and accepted the delivery of basic functionality: they were able to see/use the product and receive responses to messages.

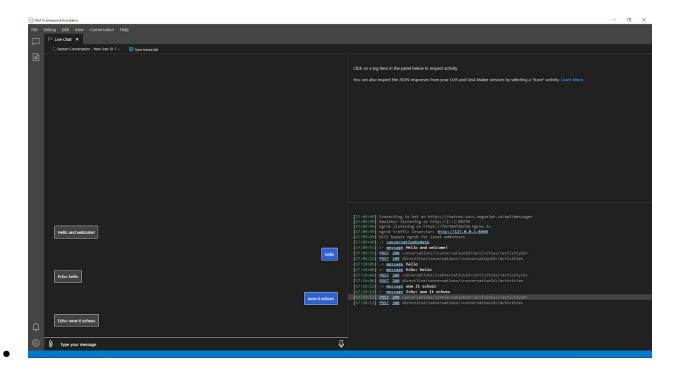


# **Repeatable Testing**

• See user story repeatable testing:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/2

- Using MS bot framework emulator to start and run the bot, it returns a response
   of at least an echo (if not more) to user questions and input.
- This repeatable testing will be changed to use the front-end website and/or slack when implementation for those areas are completed instead of using this emulator for initial development testing.



## **Evidence That Scrum Process Was Followed**

- See series of scrum board screenshots to show progress of story over time during sprint.
- See meetings/minutes for progress: asked questions, found out what was desired,
   started with basic responses (ie. echo minimum), demo to PO, and completed as done.
- See repeatable testing as part of the development.
- See Team Standards issue statuses for the general idea of what each stage of progress means with regards to subtasks:

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issue-statuses

# **User Story #2**

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/4

#### No Epics, Proper Format, Acceptance Criteria

• See user story: <a href="https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/4">https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/4</a>

- It is a properly formatted user story: "As a <role>, I want [...] so that [...]"
- o It is a broken-down task that accomplishes a single thing, i.e. not an epic
  - Part of "Epic: Infrastructure Setup" (grey label), "Epic: Front-end website polishing" (black label)
- □ It has properly formatted acceptance criteria: "Given ... When ... Then ..."
  - As well as additional notes on desired outcome of the task

#### **Deliverable**

• See user story acceptance criteria:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/4; and definition of done

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issu e-board-flow

 The client approved and accepted the delivery of basic functionality: they were able to see/use the product, and receive responses to messages through the website interface.

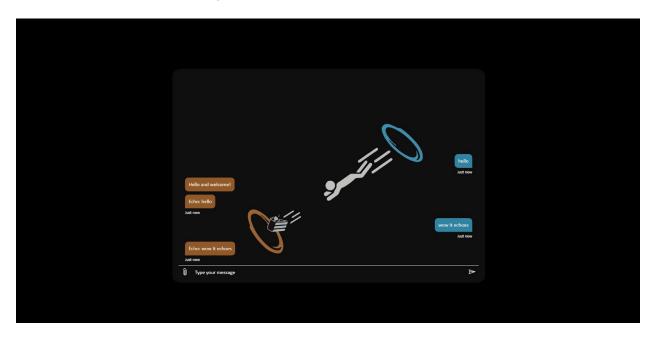


# **Repeatable Testing**

• See user story repeatable testing:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/4

 Start and run the bot on the server, it returns a response of at least an echo (if not more) to user questions and input via the website interface (<a href="https://chatron.socs.uoguelph.ca/">https://chatron.socs.uoguelph.ca/</a>).



- Note: Since the initial demo and POC of this user story (see previous screenshot), the template member list was improved because it's not applicable.
- The colour scheme was also changed to fit the dark theme better (and the background image colour theme)
- PO Robert liked this more and was satisfied with the change request

#### **Evidence That Scrum Process Was Followed**

- See series of scrum board screenshots to show progress of story over time during sprint.
- See meetings/minutes for progress: asked questions, found out what was desired,
   started with basic responses (ie. echo minimum), demo to PO, and completed as done.
- See repeatable testing as part of the development.

 See Team Standards issue statuses for the general idea of what each stage of progress means with regards to subtasks:

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issu e-statuses

# **User Story #3**

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/26

#### No Epics, Proper Format, Acceptance Criteria

- See user story: <a href="https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/26">https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/26</a>
  - It is a properly formatted user story: "As a <role>, I want [...] so that [...]"
  - o It is a broken-down task that accomplishes a single thing, i.e. not an epic
    - Part of "Epic: Infrastructure Setup" (grey label), "Epic: Slack Integration"
       (red label)
  - It has properly formatted acceptance criteria: "Given ... When ... Then ..."
    - As well as additional notes on desired outcome of the task

#### Deliverable

• See user story acceptance criteria:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/26; and definition of done

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issue-board-flow

The client approved and accepted the delivery of basic functionality: they were able to see/use the product and receive responses to messages through the Slack workspace text channel by sending messages and mentioned "@NBAChatron".



## Repeatable Testing

• See user story repeatable testing:

https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/issues/26

 Start and run the bot on the server, it returns a response of at least an echo (if not more) to user questions and input via the Slack workspace text channel where the bot was mentioned "@NBAChatron".



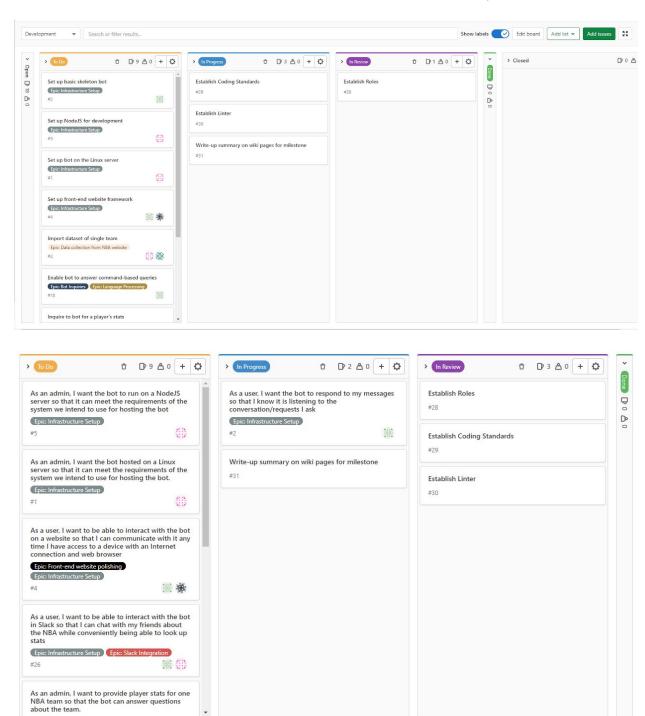
#### **Evidence That Scrum Process Was Followed**

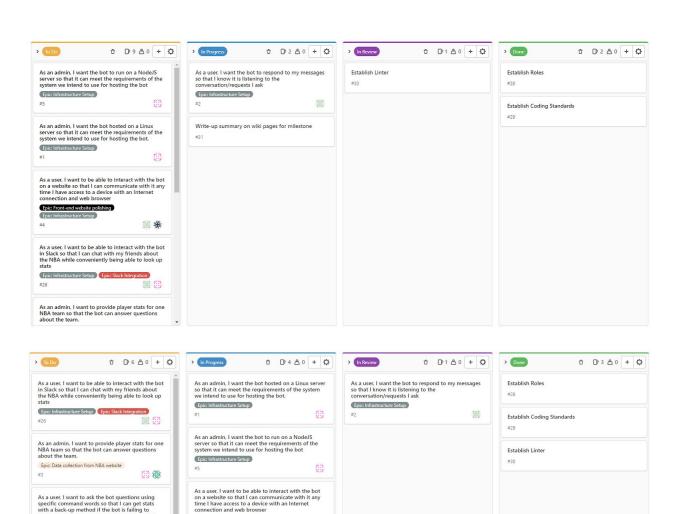
- See series of scrum board screenshots to show progress of story over time during sprint.
- See meetings/minutes for progress: asked questions, found out what was desired,
   started with basic responses (ie. echo minimum), demo to PO, and completed as done.
- See repeatable testing as part of the development.
- See Team Standards issue statuses for the general idea of what each stage of progress means with regards to subtasks:

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issue-statuses

# **Scrum Board Screenshots of Progress Over Time**

• Top is oldest screenshot, bottom is most recent - taken periodically over the sprint





As a user, I want to ask the bot questions using specific command words so that I can get stats with a back-up method if the bot is failing to understand the question posed in conversation

As a user, I want to be able to ask about a player so that I can check their overall stats simultaneously.

As a user, I want to be able to ask about specific player stats so that I do not have to read through stats that I do not need.

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Epic: Bot Inquiries | Epic: Language Processing |

Epic: Bot Inquiries

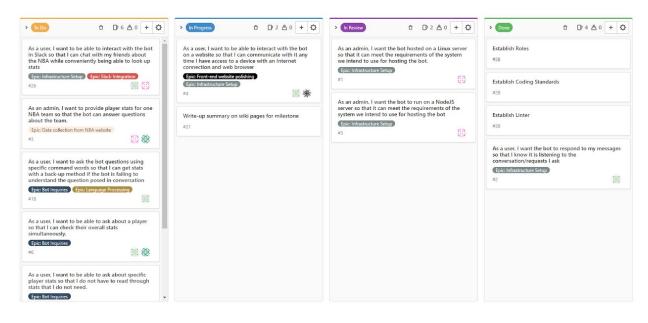
Epic: Bot Inquiries

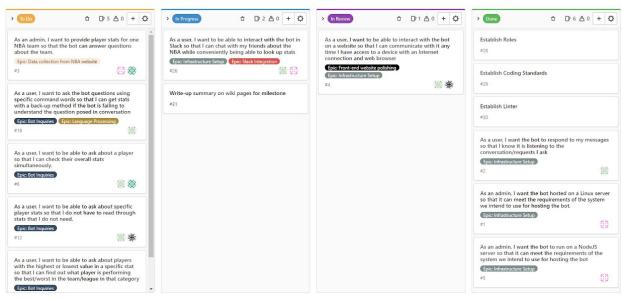
Epic: Front-end website polishing

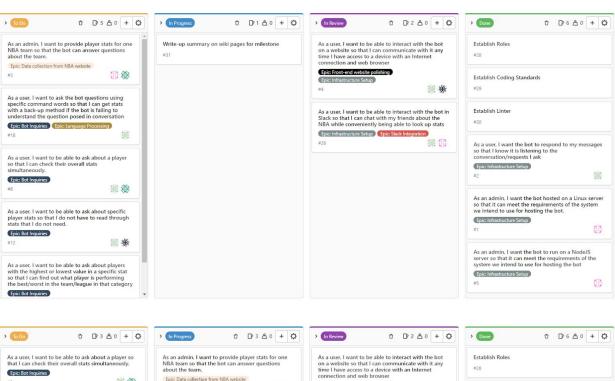
Write-up summary on wiki pages for milestone

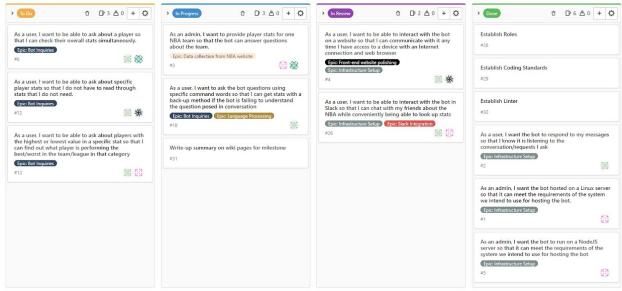
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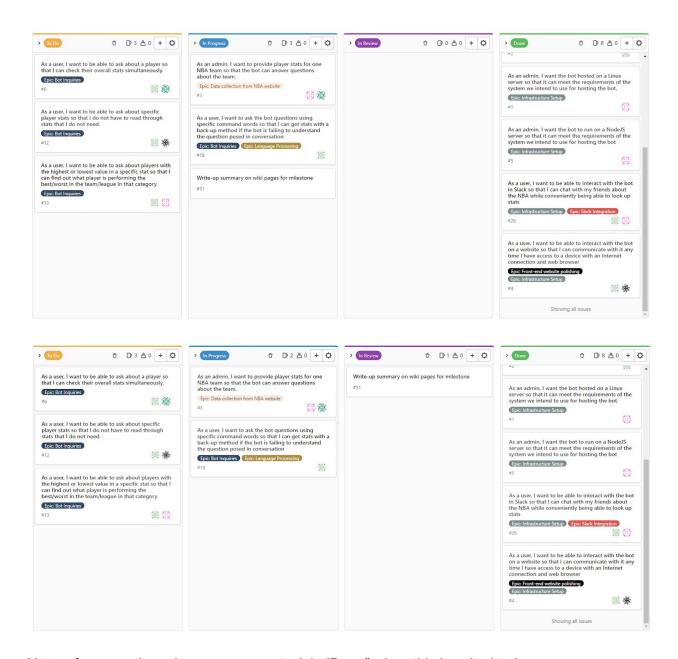
Epic: Infrastructure Setup











Note: of course, the write-up summary task is "Done" when this is submitted.

# **Optional Elements**

# 1. Agile Development

# 1.1 Clear Description of Roles for Each Team Member for this Sprint

Please see the table below for group biography and team member roles: https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/GroupBiography

Also, please take note of the issue status breakdown in our team standards:

<a href="https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issue-statu">https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#issue-statu</a>
ses

It is important to note that our team is cross-functional, and these are only "primary member role(s)" that are suited towards each members' strengths, weaknesses, and specialization. Although this is taken into consideration during the division of work, any member can work on any part. We even mention something regarding this in the notes of our team standard document issue status breakdown. For example, in this sprint here is what each team member primarily worked on:

- Thomas Arsenault: database research, API research, web scraping research, documentation assistance, code reviews, aided Seegal in his work
- Jason Hung: scrum master, process coordination, organized meetings, took meeting notes, managed issue tracking and scrum board, documentation assistance aiding
   Mitchell in his work
- Senegal Panchal: MS Bot Framework emulator echo bot, website front-end echo bot, slack integration echo bot, assisted in research for Thomas, stretch goal: first language processing bot inquiry via command word
- Mitchell Van Braeckel: team lead, documentation lead, facilitator for demo, quality assurance for documentation and written works, communication lead (managed

communication between team members with regards to course info and asking

questions)

Where the scrum master's responsibilities included:

• Coordinating weeking Scrum (standup) meetings with the PO and TA

Facilitating discussion on updates since the previous meeting, current status,

plans for next few days, and if they have anything blocking their progress.

Capture feedback during Sprint Reviews.

Note areas for improvement in Sprint Retrospectives.

Organize Scrum board.

Ensure the team is following Agile and Scrum processes and best practices.

Clearing obstacles blocking team productivity and progression.

• Ensure the team is on track to complete deliverables on time.

# 1.2 Summary/Minutes from All Meetings

# 09/22 10:30AM - Sprint Planning & Product Owner Meeting

Attendees: Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Robert

Winch

**Product Owner:** Robert Winch

#### Demographic

Age: 20

• Program: 3rd year finance, co-op

• Technical familiarity: plays a lot of video games, very comfortable, not coding level

knowledge

• Sports interests, video games

• Super chill dude, agreed to figure out together what to do for the topic

• We explained ourselves and our interests, after he did

#### Ideas from PO:

- Trip planner info for planning trips
- Cooking ingredients for recipes, where to buy them, what to do with leftovers, how to cook it
  - Meal planner
- Football stats, etc.
- Basketball etc.
- Any sport, really

#### Basketball - NBA specific

- Players
  - What they scored
  - Historical data
  - Stats including career, team, season

#### Madden 21

- Each player card stats, w/ upgrades, etc.
- Prices too? (in game currency, trade market, etc.)
- Not sure if possible, live updates, 3000+ players
  - o Lots of stats, including upgrades, stats change on position player is put in
  - Would need to scrape website

#### COD

- Pick specific game, eg. Bo4
  - o Focus: Weapons, stats, attachments, etc.

#### Other Ideas

- RoR2 very feasible
- ◆ Binding of Isaac too many items ~600+

#### Questions to ask TA/Judi

- Generate answers directly from the site for each query? Or can we build a knowledge base beforehand to generate answers off of?
- Does the source NEED to be a wiki or is https://www.muthead.com/ ok?
- English resolving bot or commands based bot?

#### PLAN

- Most likely switching to NBA stats (focus Raptors' players, past season)
  - o PO confirmed idea and direction, next is backlog generation
  - About specific things, as he suggested, we'll probably just create stuff ourselves to start and then he will add, remove, and modify ideas.
- After TA meeting tomorrow, then we have answers to questions and can start backlog and planning deliverables

## 09/23 10:30AM - TA Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Bardia Esmaeili

Bardia Esmaeili is a 1st year Master's student in [something] science

- These weekly meetings will be for him to check in on our progress, try to help us with our problems, and keep Judi updated about our project
- Will not be able to attend the next meeting we will send a progress report to him instead

#### Questions

• Aim 4-8 user stories, min 3 for submit

- Dev roles can remain the same
- Meetings evidence?
  - Daily standup not necessary, weekly standup ok with TA
  - Sprint planning and review (and backlog gen/refinement)
    - Using GitLab is fine, talk with TA during his meeting
- Merge reg/review process evidence?
  - Not sure
- Clean code (standards, linter)
  - Creating our own standards are fine, not sure about linter
- Gitlab story boards for scrum sprint board
  - Documenting normally is acceptable for bugs/issue tracking might be fine?
     Checking w/ Judi
- Not sure about oo theory and code smells stuff
  - Probably have to example it later in submission
- He's checking w/ conversation type bot or command based
- Generating answers from site every time OR generate from local after pulling
  - Must be dynamic, reflect change of website in the bot

#### 09/28 4:30PM - Product Owner Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Robert Winch

- Solidified our plan to build an NBA bot
- Discussed retrieving data from stats.nba.com, verifying that this website includes all information Robert would like from the bot
- Robert discussed examples of functionality he'd like for the bot

- Find current team of a player
- Find stats (such as points per game, three point percentage, etc) of a player
- Find similar stats about teams
- Team history of a player

## 10/05 4:30PM - Product Owner Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Robert Winch

- Talked about potential limitations of our knowledge base
  - Suggested focusing on stats from the current & last seasons, rather than all historical data
- Talked about our progress and our expected direction, towards numerical statistics
- Gave Robert a demo of our bot, which at its current state will echo the user's response
  - Included demo of the MS bot framework emulator echo, website front-end interface echo, and slack bot echo
  - No members online thing, confusing, unnecessary
    - To be removed
  - Red/blue color scheme clashing, try a different pair of colors
    - We'll try a blue/orange color scheme
  - Robert is otherwise happy with the user interface and our plan to start implementing language processing in the next sprint
- Robert gave more examples of functionality the bot could have
  - Find any regular statistic of a player
    - Points, rebounds, assists, blocks, steals, and three pointers per game
    - Field goal, three pointer, free throw percentage
  - Perhaps fantasy point statistics as well

## 10/07 10:00AM - TA Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Bardia Esmaeili

- Talked about our current progress
- Mentioned the web interface that echos the user's response (the one we showed to Robert)

# 10/14 5:00PM - PO+TA Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Bardia Esmaeili, Robert Winch

- Demonstrated the bot's current capabilities to the PO and TA (web interface, slack interface, placeholder flight booking system showcase template)
  - This showed current progress into the stretch goal story that was started for language processing implementation
- Discussed progress towards milestone 1 and sprint (completed user stories, etc)

#### 10/18 4:30PM - Sprint Review & PO Meeting

**Attendees:** Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault, Robert Winch

- Demonstrated the bot's current capabilities to the PO (web interface, slack interface, message echo, "/player" command in development sneak preview)
  - This showed current progress into the stretch goal story that was started for language processing implementation

- Robert said he really liked what we have done so far and looks forward to seeing more
- No improvements or modifications for the completed stories since the last demo
- Discussed progress towards milestone 1 and sprint (completed user stories, etc)
- Discussed that sprint 1 stretch goals that were not finished or not started will be addressed first in sprint 2 before additional stories.

# 10/18 5:30PM - Sprint Retrospective Meeting

Attendees: Jason Hung, Mitchell Van Braeckel, Seegal Panchal, Thomas Arsenault

- Get more tasks done over the sprint, we accomplished what we planned to do
   (completing the infrastructure setup epic), but didn't get to finish the stretch goals we
   wanted to do (starting on chat bot inquiry features in relation to NBA player stats)
   because of time constraints.
- Everyone was satisfied with each other's work and the share of workload, especially considering how heavy the sprint was with midterms and assignments.
- Weekly meetings with the PO/TA were good for ensuring the project was on track and everyone's expectations for the deliverables are aligned.
  - For the next sprint, we will continue with our system for preparing and taking notes during meetings.
- Could have better planned for other course commitments (tests, assignments, etc)
   blocking progression of the project more.
  - We should decide on allocating specific time period(s) each week where we work
     on this project: eg. 11:30-1:30pm Thursdays.
  - For the next sprint, we will be more mindful of our other course commitments and attempt to coordinate specific working times to focus on this project.

- Some annoyances encountered with MS connection timeouts once in a while and connection fails for the DNS lookup -- look for a workaround next sprint to minimize overheard from this issue.
  - Appears as EAI Error which could mean: losing connection to DNS server or other network connectivity error, proxy error, or bad internet connection, etc.\

# 2. Agile Development

# 2.1 Evidence of team processes including merge review, coding standards, use of a linter, build tools (CI is optional)

- Daily standup -- notable blockers only
  - EAI error noticed later on, looking into a workaround to minimize development overhead (see meeting notes)
- Sprint planning -- Sep 22-23 (see meeting notes)
- Sprint review -- Oct 18 (see meeting notes)
- Sprint retrospective -- Oct 18 (see meeting notes)
- Demos -- various dates (see meeting notes)
  - Any notable change requests or suggestions are included in meeting notes

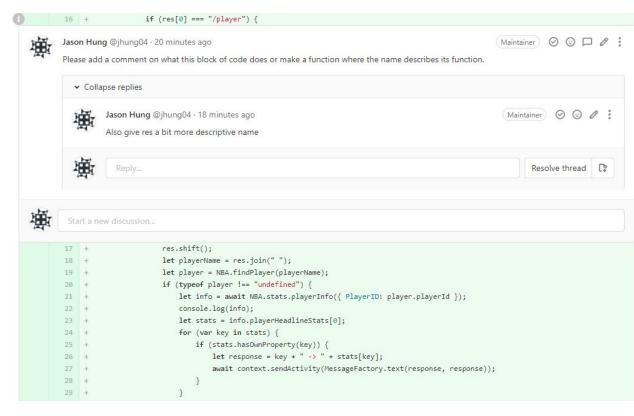
Team Standards (coding standards and conventions, general team standards, linters, merge review process, build tools, work development environment, VS Code extensions, and so on) <a href="https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards">https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards</a>

#### Evidence of Merge Review:

• <a href="https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/merge\_requests/1">https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/merge\_requests/1</a>



https://git.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/merge\_requests/1



As seen in the two screenshots above, our team follows the merge review process we initially laid out, where each task is first reviewed as a merge request by the entire team. After each member reviews, changes are made and this process repeats until it is approved to be merged by the team. Notice that our developer has thoroughly tested and reviewed the code design and how it works, so our comments were more for the lacking documentation because there was no issue with the code functionality or style itself. See

https://gitlab.socs.uoguelph.ca/3760f20/chatron/wiki-chatbot/-/wikis/TeamStandards#committing
-code for more detail on our implemented process. In the future, we will likely set up CI/CD and/or automated tests for our bot.

How to start up the bot:

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- Install Dependencies:
  - Script

- sudo npm install
- Created:
  - Node\_modules
- Start up server:
  - o sudo npm start

#### Success Output:

```
sysadmin@chatron:~/seegal/wiki-chatbot$ sudo npm start
[sudo] password for sysadmin:

> nba-chatron@1.0.0 start /home/sysadmin/seegal/wiki-chatbot
> sudo fuser -k 3000/tcp & sudo directline -d 3000 -b "https://chatron.socs.uogu elph.ca/api/messages" & node ./index.js

Listening for messages from client on http://127.0.0.1:3000
Routing messages to bot on https://chatron.socs.uoguelph.ca/api/messages

restify listening to http://[::]:80

Forwarding all hits on http://[::]:80 to https://[::]:443

To access go to https://chatron.socs.uoguelph.ca/

I access go to https://chatron.socs.uoguelph.ca/
```