COMP 354 - Summer 2021
ETERNITY Calculator Project Organization Summary

Team I

Initial Project Meeting

- Deciding the technology and language for ETERNITY

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- Breakdown of team members' skills, tasks and responsabilities

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- Breakdown of team members' skills, tasks and responsabilities
- Organization of future meetings and communication
  - Discord

Initial Project Meeting

Breaking the project down into sub-tasks and task allocation based on skills and knowledge.

- Lead/ project GitHub Repository organizer
- Documentation
- Fullstack Developer
- Backend Developer
- Frontend Developer
- Communication and resources

Roles

Lead/ project repository: Robert
Documentation: Xavier, Sobhan
Fullstack: Chelsie
Backend: Elijah
Frontend: Michael
Communication and resources: Hao mei
Major present: Michael
Minor presenter: Robert

Interview Process

- Funnel Strategy
  - General questions leading into more specific questions related to the ETERNITY calculator.

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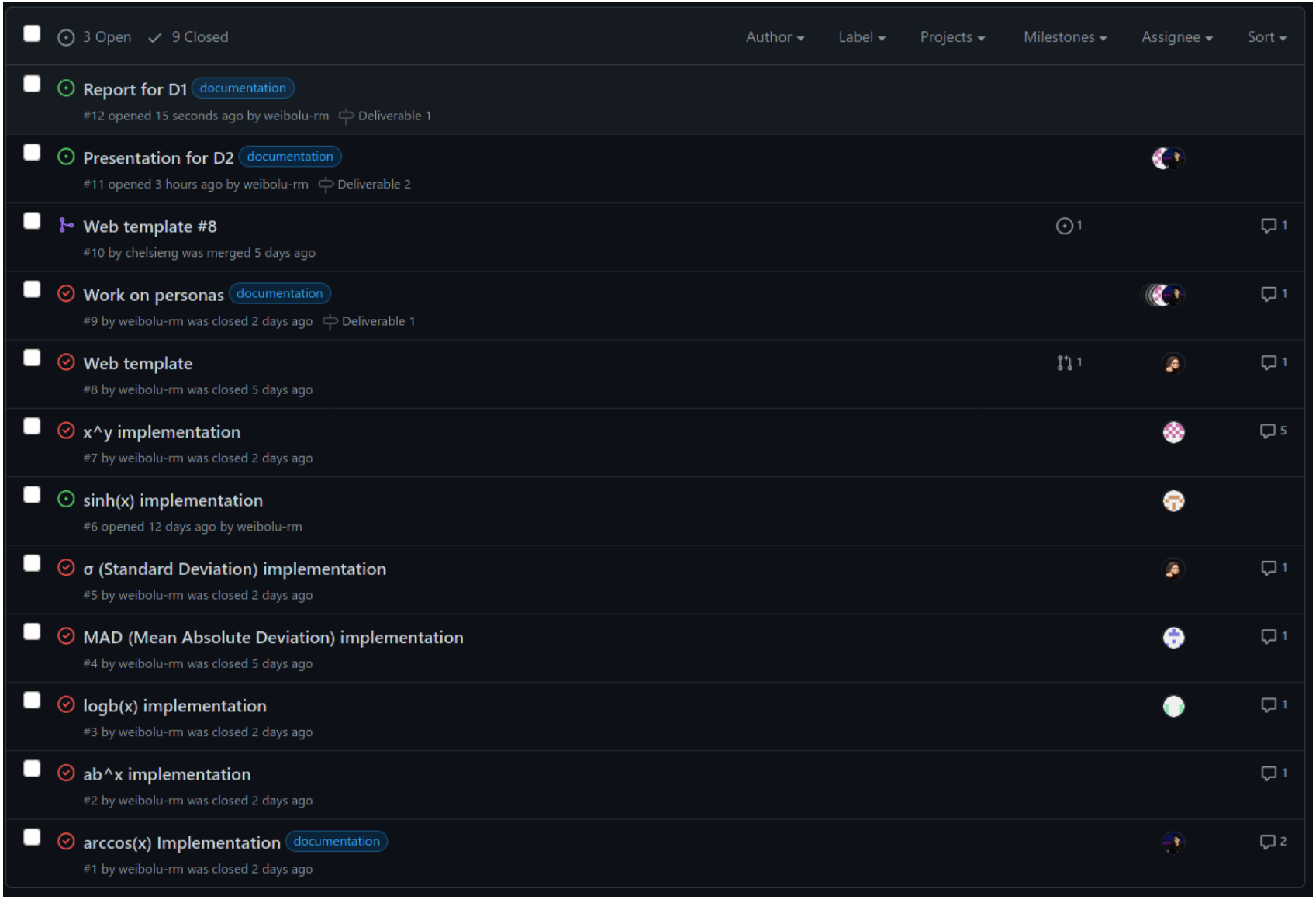
- 5 questions per team member
  - 10 General questions
  - 25 Specific questions

GitHub Repository

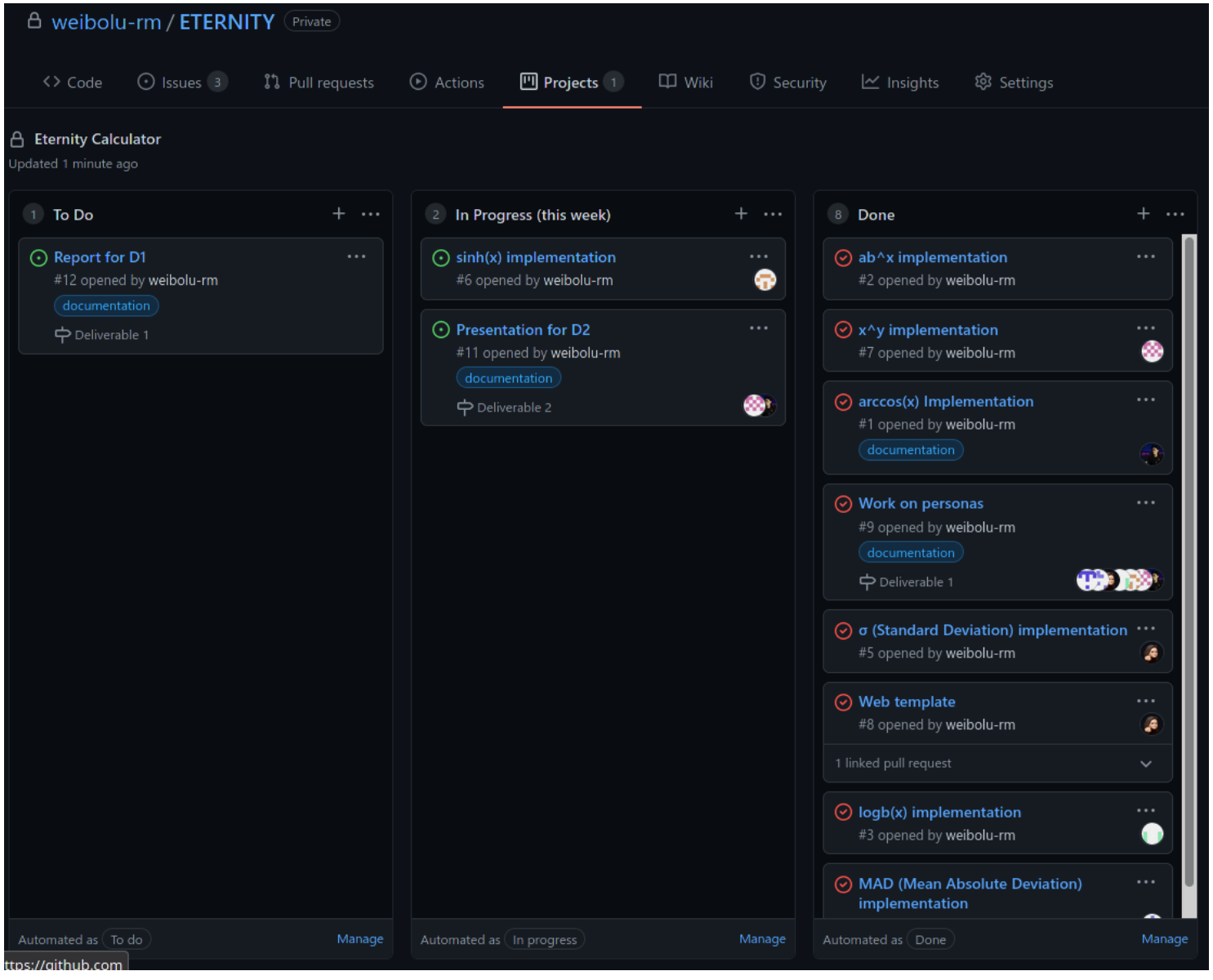
Not just for code version control.

- Issue tracking
- Kanban board linked to current issues
- Documentation

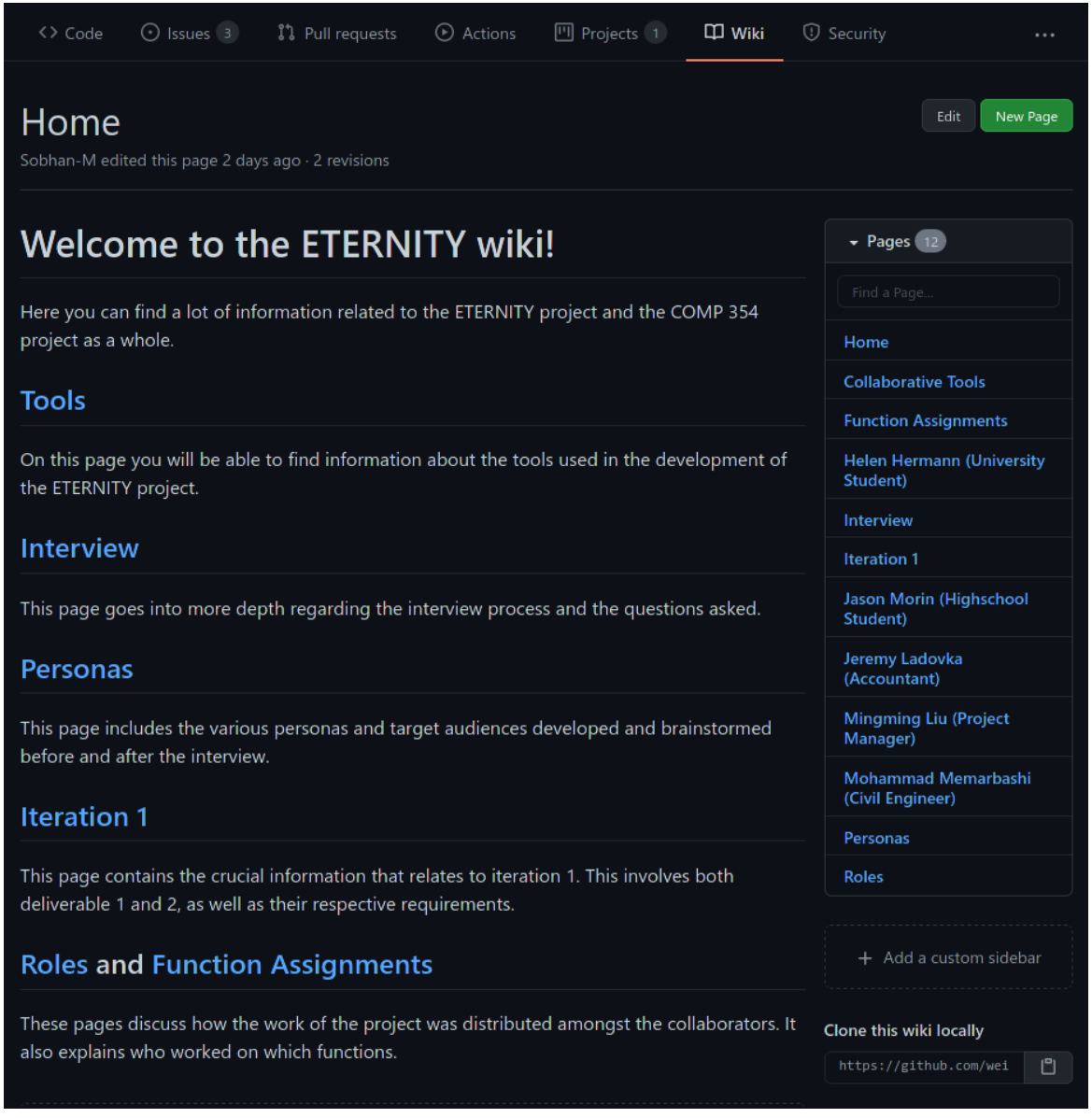
GitHub Repository - Issues



GitHub Repository - Kanban board



GitHub Repository - Documentation



Interview Process

Choosing interviewees:

- Tried to get a variety of interviewees based on whom we thought would be interested in using a calculator
- Total of 7 interviewees, one interview conducted by each team member

Notes about interviews

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  i.e. x^y vs x ^ y

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- Customizability
- People prefer formal notation,
  i.e. x^y vs x ^ y
- There exists a few popular online calculators/ tools with advanced features
  i.e. *Wolframe Alpha, Symbolab, Desmos*

Notes about interviews

Example of an idea we didn't consider:
Which functions that are generally not on a calculator, would you like to see added?
"This is very difficult, maybe some constants could be added, like the gravity constant or the speed of light for our fellow engineer."

Personas

7 Initial personas, ranging from a variety of different people and different backgrounds who might contribute to different types of use cases.

Initial brainstorm for target groups:

1. Students
2. Statisticians
3. Data Analysts
4. Businessmen
5. Accountants
6. Engineers
7. Professors

Personas

Actual target groups we ended up having:

1. Highschool Student
2. University Student
3. Statisticians
4. Data Analyst
5. Accountants
6. Engineer (Program Manager)
7. Engineer (Civil Engineer)

Personas

Using the interview responses, we come up with positive and negative personas by first writing up a basic bio to make it seem more “real”.

- Then build a table with the important information

Persona for the target group “Highschool Student”

Name	Jason Morin
Gender and age	male, 15
Disabilities and restrictions	none
Education	Current highschool student
Profession	Student
Hobbies	Building (customizing) computers, video games, watching Netflix
Location of use	home
Computer literacy	Is very comfortable using computers, and a fast learner for new programs/ tools but not a power user.
Computer environment	*Google Chrome 91.0.4472.77* on *Windows 10*
Internet literacy	High, self-taught and fast learner

Persona for the target group “Accountant”

Name	Jeremy Ladovka
Gender and age	male, 38
Disabilities and restrictions	none
Education	Masters, Accountancy
Profession	Accountant
Hobbies	Math, Soccer, watching movies, playing video games, going out with friends
Location of use	Office/ Home (Covid-19)
Computer literacy	Very strong computer skills. Uses computers on a daily basis to perform both work related tasks and personal hobbies.
Computer environment	*Safari v14.1, Mac OS*
Internet literacy	High, communicates via Internet daily

Use Cases

High Level

- Validate Calculations Of Other Software
- Solve School Assignments
- Analyze Sale Statistics
- Estimate Cost Of Engineering Projects
- Calculate Shopping Expenditures
- Help During Exams
- Analyze Biology Lab Results
- Graph Mathematical Functions
- Analyze Large Data Sets
- Design Building Architecture

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Low Level

- Input Data Set
- Input Number
- Input Function
- Input Operator
- Graph Function
- Calculate Result
- Display Result
- Clear Result
- Modify Colour

Closing Statements

Eternity Calculator

			9*2
AC	arccos(x)	sinh(x)	$\log_b(x)$
MAD	σ(x)	ab^x	x^y
7	8	9	÷
4	5	6	×
1	2	3	−
•	0	=	+