

CSC 510 (001)
P2: Unit Converter Extension

Group 98

Mia Ameen
Vaibhav Hawaldar
Jay Lakhani

Repo Link:

[REPOSITORY](#)

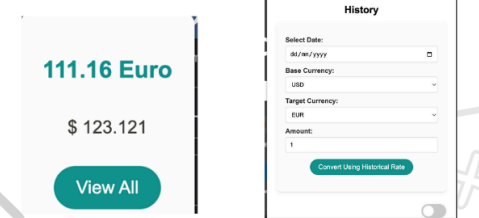
POSTER

SMART UNITS CONVERTER

Smart Units Converter is the easiest way to convert units without manually selecting them. Whether you are shopping online, calculating measurements, or navigating new time zones, this browser extension will seamlessly convert units with a single click. Offering a wide range of practical use cases, Smart Units Converter helps you save time and effort online. This project is especially interesting for those that want to learn and gain some experience with Javascript, NodeJS, HTML, CSS, and browser extensions.



WORKING SCREENSHOTS



SMART UNITS CONVERTER 2.0

- Enhanced UI/UX:** Add dark/light modes using CSS for theming.
- Historical Data Integration:** Provide access to past exchange rates by integrating the Open Exchange Rates API visualizing historical data within the extension's.
- Expanded Conversion Options:** Our Unit Conversion offers conversions across various units—energy, area, length, mass, temperature, and time.

LEARNING

Gain hands-on experience in UI design using CSS and JavaScript, API integration with services like Open Exchange Rates, and AI analytics using TensorFlow.js. Enhance our skills in database management with Node.js while working on real-time data and machine learning, perfect for building modern, responsive apps!

SMART UNITS CONVERTER 3.0

- AI-Driven Predictions:** Forecast future exchange rates by using TensorFlow.js to build a lightweight machine learning model that runs directly in the browser.
- Multilingual Support:** Enable auto-detected multilingual features using JavaScript's navigator.language API for detection and integrate i18next for handling translations.
- Custom Theme:** Create a personalized look for the Unit Conversion Library with customizable colors, fonts, and layouts, allowing the user to have whatever style they want.
- Advanced Historical Analysis:** Offer interactive charts for visualizing currency trends over time, with options to zoom in on specific time periods or apply moving averages to smooth data.

GITHUB REPO



CODE COV



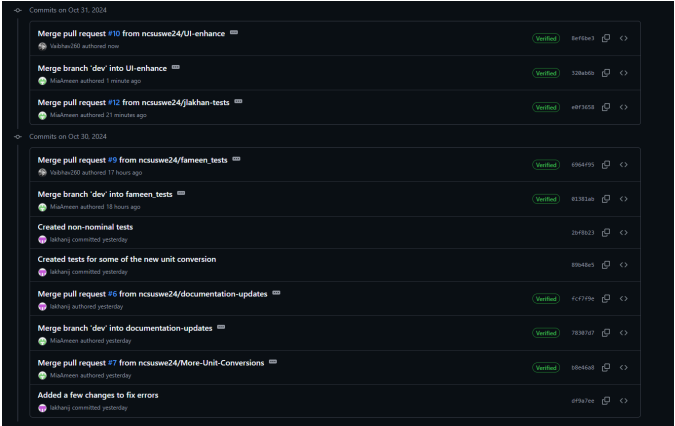
DEMO



TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay				
Notes	M	V	J	Supporting Links
Sum	62	62	62	
Workload is spread over the whole team (one team member is often Xtimes more productive than the others)	3	3	3	Each team member took the task of a milestone. This meant that Mia chose to do front-end design improvements, Jay chose to work on increasing functionality of the program, and Vaibhav added historical rates.
but nevertheless, there is a track record that everyone is contributing a lot)	3	3	3	https://github.com/ncsuswe24/units_converter_extension/commits/dev/
Issues reports: there are many	3	3	3	https://github.com/ncsuswe24/units_converter_extension/issues?q=is%3Aissue+is%3Aclosed
Docs: what: point descriptions of each class/function (in isolation)	3	3	3	

TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay				
Number of commits	NA			https://github.com/ncsuswe24/units_converter_extension/commits/dev/
Number of commits: by different people	3	3	3	in GH 

TABLE

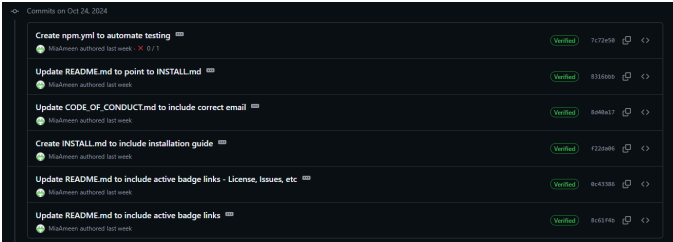
SELF-SCORES
M - Mia, V - Vaibhav,
J - Jay

Adding more tests for getPrecisionNumber in conversion.js. Coverage now at 55%	3d55e6b	C >
Improving code coverage for conversion.js by testing precision function	809d373	C >
Made some bug fixes	a19786a	C >
Commits on Oct 26, 2024		
Added unit conversions for Frequency, Angles, and Energy	e10811a	C >
Commits on Oct 25, 2024		
Small improvements to UI	11c0208	C >
Successfully integrated dark mode into extension	aab228a	C >
Commits on Oct 24, 2024		
updating npm script	408f73d	C >
Making README and look nice badges for code styling/formatting	734b38b	C >
Update npm.yml to include eslint and prettier configs	c8a76a7	C >
Merge branch 'documentation-updates' of https://github.com/ncsuwe24/units_converter_extension into documentation-updates	8c0e6bc	C >
Updating the test temporarily...	c1c1c1a	C >

Merge branch 'master' into documentation-updates	587c33b	C >
Merge branch 'documentation-updates' of https://github.com/ncsuwe24/units_converter_extension into documentation-updates	ba8b974	C >
Code formatting and styling with eslint and prettier	3c3a83e	C >
Update package.json to include coverage tests	e0822a8	C >
Update npm.yml to include new coveralls command	4522251	C >
Update README.md to include correct coverage badge	c7604e7	C >
Update npm.yml to make coveralls work	61c838b	C >
Update npm.yml to include coveralls token	495706e	C >
Update npm.yml attempting to fix coveralls	2b73241	C >
Update npm.yml to correct coverage commands	95305a9	C >
Update npm.yml testing coveralls	3732853	C >
Update npm.yml Simply changing workflow name	9f20a08	C >
Fixing built status badge !!	2a86334	C >

TABLE

SELF-SCORES
M - Mia, V - Vaibhav,
J - Jay

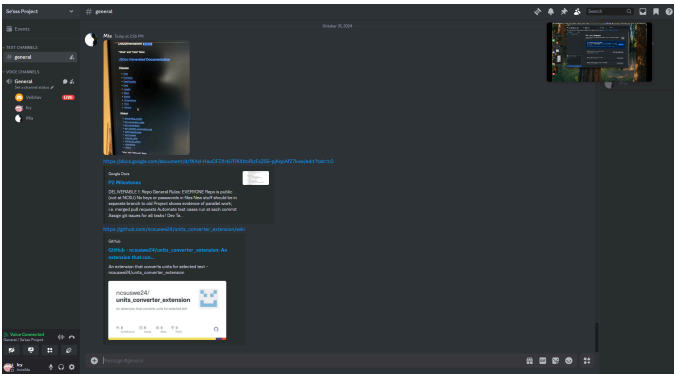
				
Issues are being closed	3	3	3	https://github.com/ncsuswe24/units_converter_extension/issues?q=is%3Aissue+is%3Aclosed
Docs: docs generated, format not ugly	3	3	3	https://github.com/ncsuswe24/units_converter_extension/wiki/Documentation
Docs: how: for common use cases X,Y,Z mini-tutorials showing worked examples on how to do X,Y,Z	3	3	3	https://github.com/ncsuswe24/units_converter_extension/blob/master/README.md
Docs: why: docs tell a story, motivate the whole thing, deliver a punchline that makes you want to rush out and use the thing	3	3	3	https://github.com/ncsuswe24/units_converter_extension/blob/master/README.md

TABLE

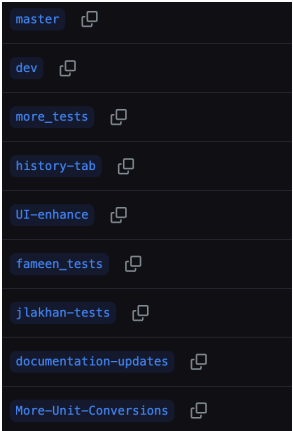
SELF-SCORES
M - Mia, V - Vaibhav,
J - Jay

Docs: short video, animated, hosted on your repo. That convinces people why they want to work on your code.	3	3	3	https://drive.google.com/file/d/1km0OGBB_oV7Z7ynN50SRSraJ6Tim_L1T/view
Use of version control tools	3	3	3	
Test cases exist	3	3	3	https://github.com/ncsuswe24/units_converter_extension/tree/master/test
Test cases are routinely executed	3	3	3	Test cases are run every time code is pushed through the github workflow. https://github.com/ncsuswe24/units_converter_extension/blob/master/.github/workflows/npm.yml
Issues are discussed before they are closed	3	3	3	Issues were discussed after a code review in discord with each team member. This meant we looked through each other's code and ensured that it met the quality that was expected when pulled to dev. Issues were also discussed on Github https://github.com/ncsuswe24/units_converter_extension/issues?q=is%3Aissue+is%3Aclosed

TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay				
Chat channel: exists	3	3	3	Link or screenshots 
Test cases: a large proportion of the issues related to handling failing cases.	3	3	3	We had no regression in functionality so we had no failing test cases.
Evidence that the whole team is using the same tools: everyone can get to all tools and files	3	3	3	Will prove in TA demo.

TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay				
Evidence that the whole team is using the same tools (e.g. config files in the repo, updated by lots of different people)	3	3	3	Will prove in TA demo.
Evidence that the whole team is using the same tools (e.g. tutor can ask anyone to share screen, they demonstrate the system running on their computer)	3	3	3	Will prove in TA demo.
Evidence that the members of the team are working across multiple places in the code base	3	3	3	<p>Each team member was tasked with a different part, so we each had to work across multiple places in the code base. (different branches)</p> 

TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay				
Short release cycles	2	2	2	(hard to see in short projects) project members are committing often enough so that everyone can get your work
The file .gitignore lists what files should not be saved to the repo.	NA			https://github.com/ncsuswe24/units_converter_extension/blob/master/.gitignore
The file INSTALL.md lists how to install the code	NA			https://github.com/ncsuswe24/units_converter_extension/blob/dev/INSTALL.md
The file LICENSE.md lists rules of usage for this repo	NA			https://github.com/ncsuswe24/units_converter_extension/blob/dev/LICENSE
The file CODE-OF-CONDUCT.md lists rules of behavior for this repo; e.g. see example	NA			https://github.com/ncsuswe24/units_converter_extension/blob/dev/CODE_OF_CONDUCT.md

TABLE

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The file CONTRIBUTING.md lists coding standards and lots of tips on how to extend the system without screwing things up; e.g. see example	NA	https://github.com/ncsuswe24/units_converter_extension/blob/dev/CONTRIBUTING.md
The file README.md contains all the following	NA	https://github.com/ncsuswe24/units_converter_extension/blob/dev/README.md
Video	NA	https://drive.google.com/file/d/1km0OGBB_oV7Z7ynN50SRSraJ6Tim_L1T/view
DOI badge: exists. To get a Digital Object Identifier, register the project at Zenodo . DOI badges look like this:	NA	https://zenodo.org/records/10211931
Badges showing your style checkers	NA	config files in GH showing your config, badges in README

TABLE

SELF-SCORES M - Mia, V - Vaibhav, J - Jay		
Badges showing your code formatters.	NA	config files in GH showing your this formatter's config, badges in README
Badges showing your syntax checkers.	NA	config files in GH showing this checker's config, badges in README
Badges showing your code coverage tools	NA	config files in GH, badges in README
Badges showing any other Other automated analysis tools	NA	config files in GH, badges in README

SOFTWARE SUSTAINABILITY EVALUATION:

<https://docs.google.com/document/d/1F5pmsQZRvyaN7nA4xItiuzBu4M2gCo4pj1NTIII3Zc/edit?tab=t.0>

TABLE