

# Pull Requests, Part I

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Verifiable Claims

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# Git and GitHub

- Git is a revision control system, primarily command-line driven
- GitHub is a site that hosts git repositories

# Git

- Revision control system
  - Tracks changes to a collection of files
  - Each saved change is called a 'commit'
    - represented and referenced by a hash value
    - usually containing a (brief) commit message explaining what the commit is for

# Repositories

- All commits apply to a specific 'repository'
- A repository can be cloned to form a brand new (separate) repository
- When I clone your repository I really do have my own separate copy

# Branches

- All work (i.e., commits) within a repository is done on a branch
- Normal default branch is 'master', but most W3C specs use 'gh-pages' as the default branch
- It is trivially easy to create new branches
- After working on a new branch, you can then merge your changes (your commits) onto a different branch
- A common workflow is to branch from the default, edit and commit your changes, then merge the changes into the default branch

# GitHub

- Web hosting for git repositories
- Adds some magic to repositories and branches to enable the 'fork and pull' model
  - Why? To make it easier for contributors without edit access to the main repository to propose changes
- Provides only limited document editing and committing capabilities
  - Why? Because the details of branching, commits, and merging can get quite complicated

# Repositories

- In github, you 'fork' to create a clone, a new copy of the current repository, in your account.
- Your copy knows where it was forked from. This is used in creating pull requests.
- All PRs are created from YOUR fork
- More details on forking vs. cloning:  
<http://bryanpendleton.blogspot.com/2014/07/git-clone-vs-fork.html>

# Original repo

The screenshot shows the GitHub repository page for 'opencreds / vc-data-model'. The browser address bar shows the URL 'https://github.com/opencreds/vc-data-model'. The repository name is 'opencreds / vc-data-model'. The page includes navigation links for 'Code', 'Issues 9', 'Pull requests 0', 'Projects 0', 'Wiki', 'Pulse', and 'Graphs'. The repository statistics show 145 commits, 1 branch, 0 releases, and 8 contributors. The 'Fork' button is circled in red. The commit history shows the latest commit by gkellogg on 27 days ago, with files: CONTRIBUTING.md, LICENSE.md, index.html, and privacy-spectrum.svg.

GitHub, Inc. [US] | <https://github.com/opencreds/vc-data-model>

This repository Search Pull requests Issues Gist

opencreds / vc-data-model Watch 6 Star 0 Fork 0

Code Issues 9 Pull requests 0 Projects 0 Wiki Pulse Graphs

Verifiable Claims Data Model and Representations specification <https://opencreds.github.io/vc-data-model/>

145 commits 1 branch 0 releases 8 contributors

Branch: gh-pages New pull request Create new file Upload files Find file Clone or download

gkellogg committed on GitHub Create LICENSE.md Latest commit 271a1d1 27 days ago

CONTRIBUTING.md	Create CONTRIBUTING.md	27 days ago
LICENSE.md	Create LICENSE.md	27 days ago
index.html	Minor language fixes for issue tracking.	28 days ago
privacy-spectrum.svg	Move to Data Model and Representations to separate repo.	28 days ago

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# My forked repo

The screenshot shows a web browser displaying a GitHub repository page. The address bar shows the URL <https://github.com/burnburn/vc-data-model>. The repository name is **burnburn / vc-data-model**, noted as being forked from `opencreds/vc-data-model`. The page features navigation tabs for `Code`, `Pull requests` (0), `Projects` (0), `Wiki`, `Pulse`, `Graphs`, and `Settings`. A summary bar indicates 145 commits, 1 branch, 0 releases, and 8 contributors. Below this, there are buttons for `New pull request`, `Create new file`, `Upload files`, `Find file`, and `Clone or download`. A commit history table lists recent changes, including the creation of `LICENSE.md` and `CONTRIBUTING.md`, and updates to `index.html` and `privacy-spectrum.svg`. A blue banner at the bottom encourages adding a README file.

GitHub, Inc. [US] <https://github.com/burnburn/vc-data-model>

This repository Search Pull requests Issues Gist

burnburn / **vc-data-model**  
forked from opencreds/vc-data-model

Unwatch 1 Star 0 Fork 3

Code Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Verifiable Claims Data Model and Representations specification <https://opencreds.github.io/vc-data-m...>  
— Edit

145 commits 1 branch 0 releases 8 contributors

Branch: gh-pages New pull request Create new file Upload files Find file Clone or download

This branch is even with opencreds:gh-pages. Pull request Compare

gkellogg committed on GitHub Create LICENSE.md Latest commit 271a1d1 27 days ago

CONTRIBUTING.md	Create CONTRIBUTING.md	27 days ago
LICENSE.md	Create LICENSE.md	27 days ago
index.html	Minor language fixes for issue tracking.	28 days ago
privacy-spectrum.svg	Move to Data Model and Representations to separate repo.	28 days ago

Help people interested in this repository understand your project by adding a README. Add a README

# Pull Requests

- A 'pull request' is a collection of changes to the original repository
- It can often be easily 'pulled in', or merged, into the original repository by the maintainers of that repo

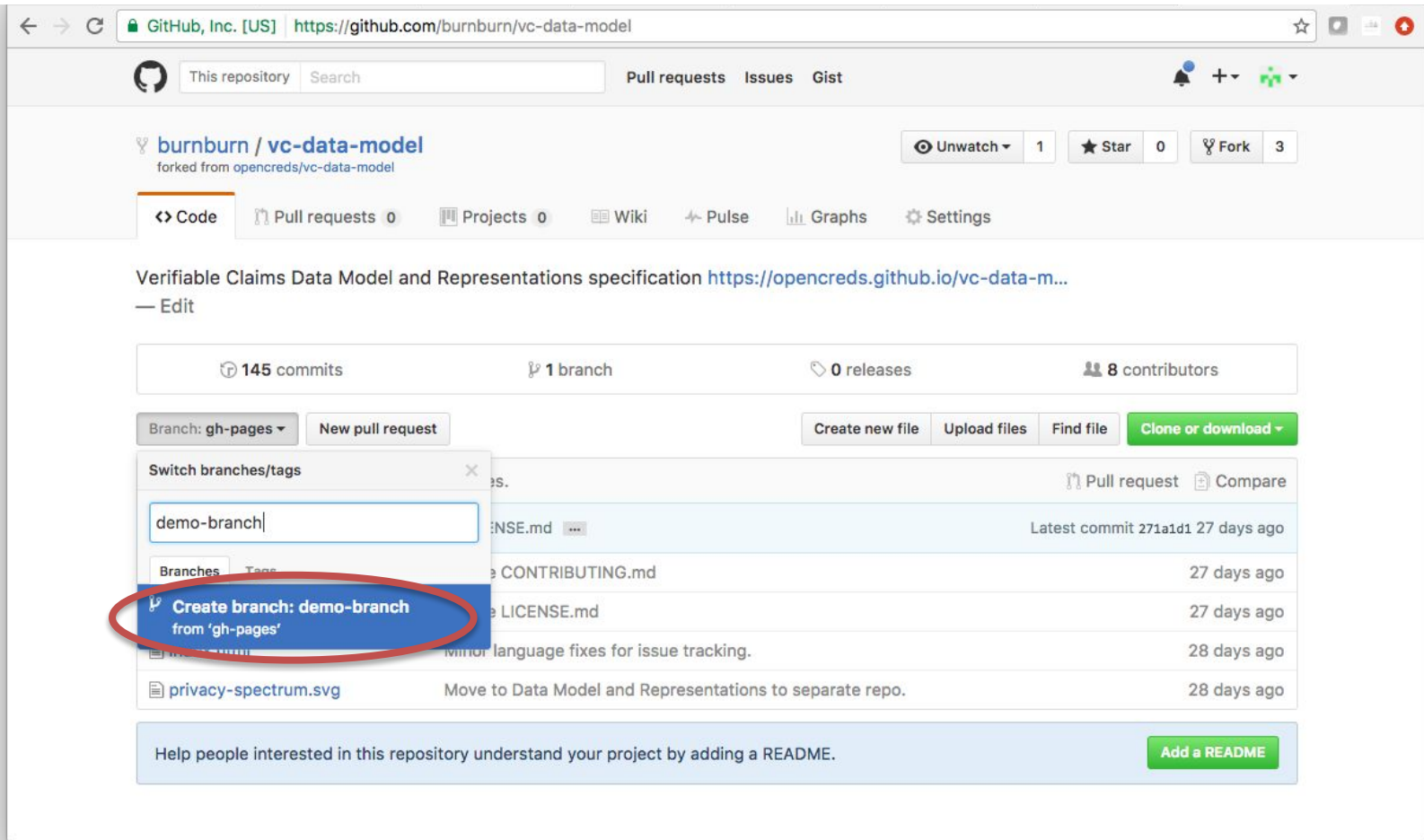
# Branches and Pull Requests

- A pull request is created from a branch in your repository
- GitHub figures out the diffs between the original repo and your current branch in your repo and makes it a Pull Request
- Any changes you make to your own branch are automatically updated in the PR

# Creating a single simple PR in GitHub

- <https://help.github.com/articles/github-flow-in-the-browser/>
  - Create a branch
  - Edit the file(s) and commit
  - Create a PR

# Create a branch



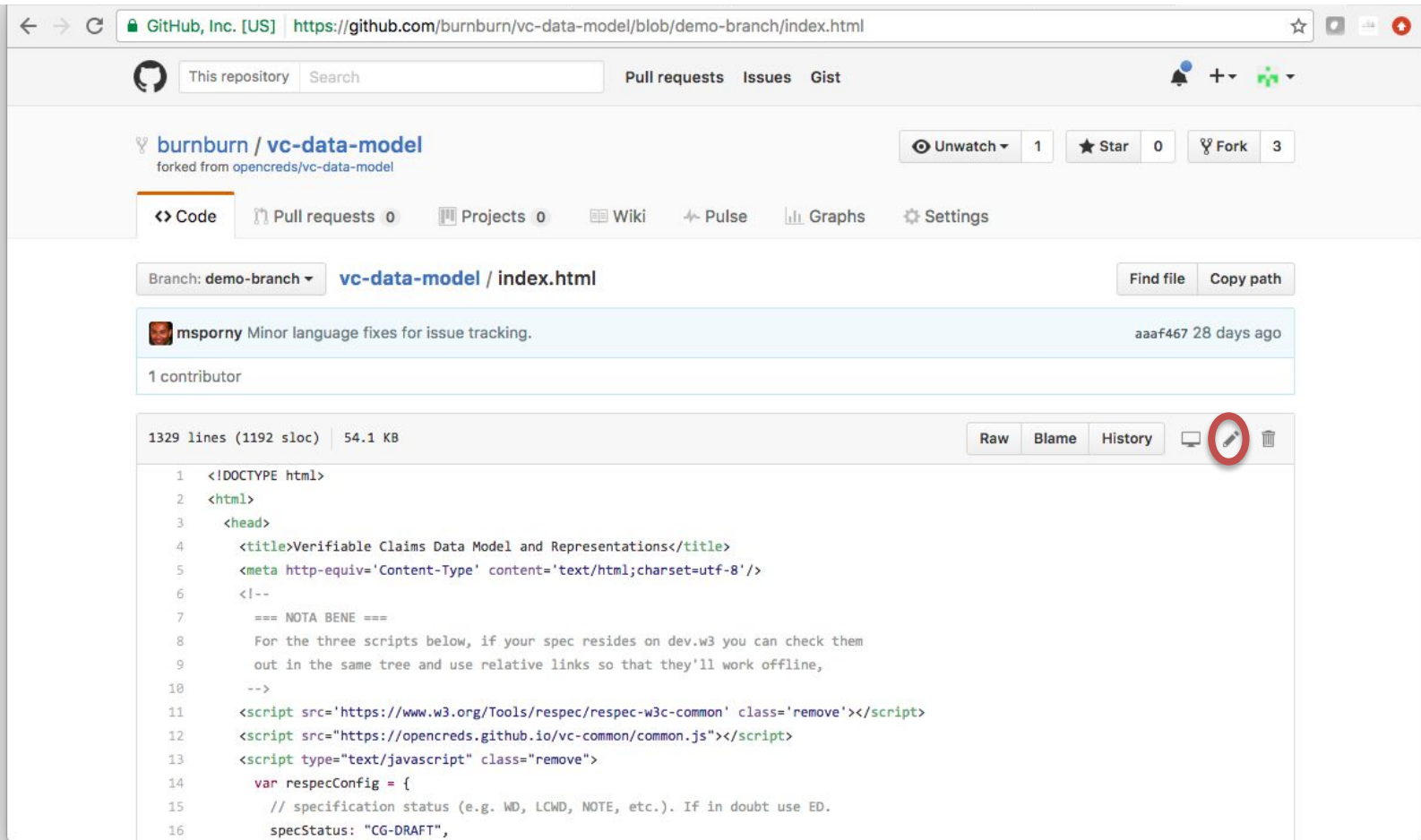
# Select the file to edit

The screenshot shows a GitHub repository page for 'burnburn / vc-data-model', which is a fork of 'opencreds/vc-data-model'. The page is viewed on the 'demo-branch'. At the top, there is a navigation bar with 'Pull requests', 'Issues', and 'Gist' links. Below this, a blue banner indicates 'Branch created.'. The repository name and statistics are shown: 'Unwatch' (1), 'Star' (0), and 'Fork' (3). A secondary navigation bar includes 'Code', 'Pull requests 0', 'Projects 0', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main content area displays the repository description: 'Verifiable Claims Data Model and Representations specification https://opencreds.github.io/vc-data-m...'. Below the description, a summary box shows '145 commits', '2 branches', '0 releases', and '8 contributors'. A row of buttons includes 'Branch: demo-branch', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. The file list section shows the following files and their commit details:

File Name	Commit Message	Time Ago
CONTRIBUTING.md	Create CONTRIBUTING.md	27 days ago
LICENSE.md	Create LICENSE.md	27 days ago
<b>index.html</b>	Minor language fixes for issue tracking.	28 days ago
privacy-spectrum.svg	Move to Data Model and Representations to separate repo.	28 days ago

At the bottom, there is a prompt to 'Add a README'.

# Click the edit icon

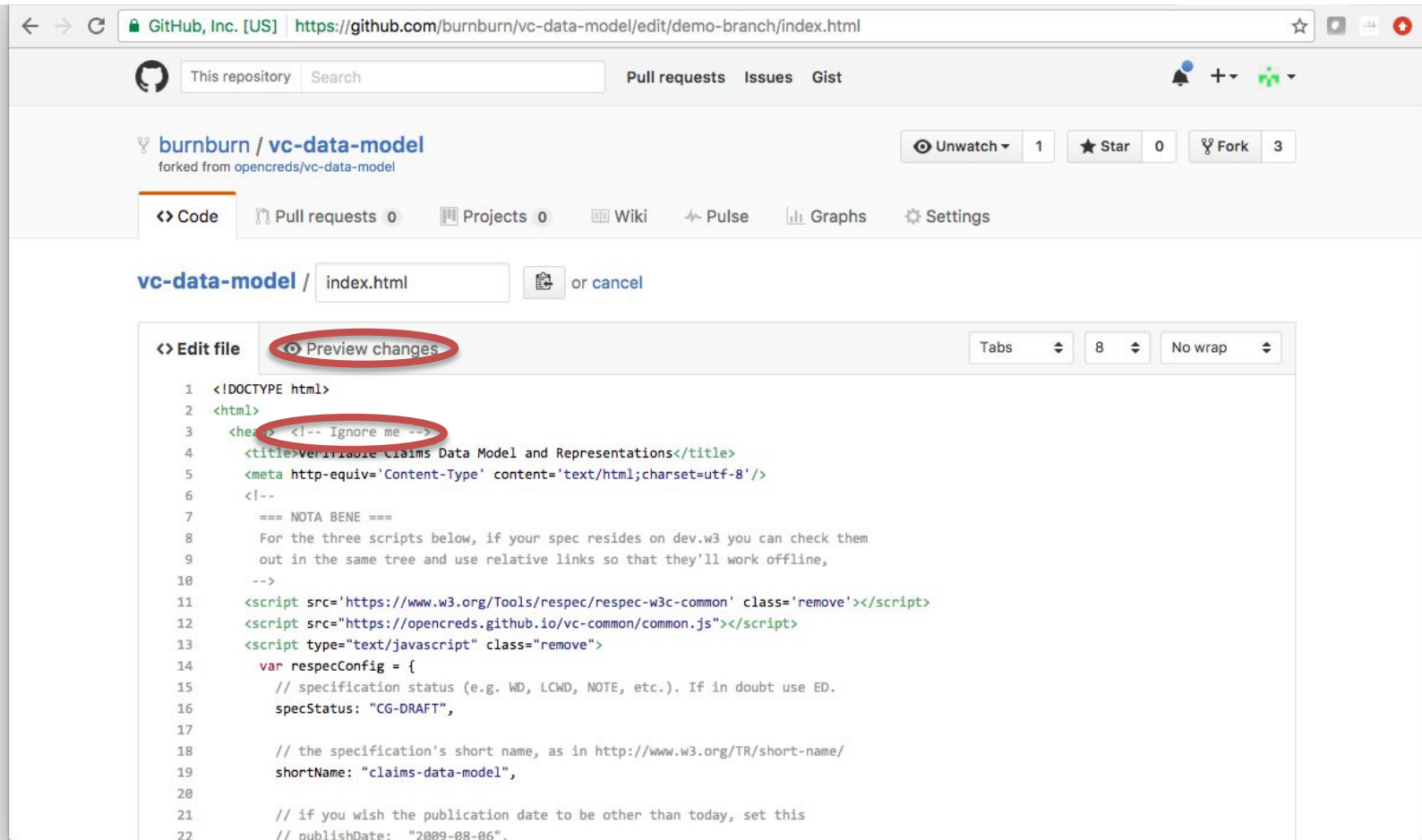


The screenshot shows a GitHub repository page for 'burnburn / vc-data-model'. The page displays a commit by 'msporny' with the message 'Minor language fixes for issue tracking.' and a commit hash 'aaaf467' from 28 days ago. Below the commit, the file 'index.html' is shown, containing 1329 lines of code (1192 sloc) and 54.1 KB. The code is HTML with a title 'Verifiable Claims Data Model and Representations' and a meta tag for content type. It includes a comment '=== NOTA BENE ===' and a note about script locations. The code is as follows:

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>Verifiable Claims Data Model and Representations</title>
5     <meta http-equiv='Content-Type' content='text/html; charset=utf-8' />
6     <!--
7       === NOTA BENE ===
8       For the three scripts below, if your spec resides on dev.w3 you can check them
9       out in the same tree and use relative links so that they'll work offline,
10      -->
11     <script src='https://www.w3.org/Tools/respec/respec-w3c-common' class='remove'></script>
12     <script src="https://opencreds.github.io/vc-common/common.js"></script>
13     <script type="text/javascript" class="remove">
14       var respecConfig = {
15         // specification status (e.g. WD, LCWD, NOTE, etc.). If in doubt use ED.
16         specStatus: "CG-DRAFT",
```

The edit icon (a pencil) is circled in red in the top right corner of the code viewer area.

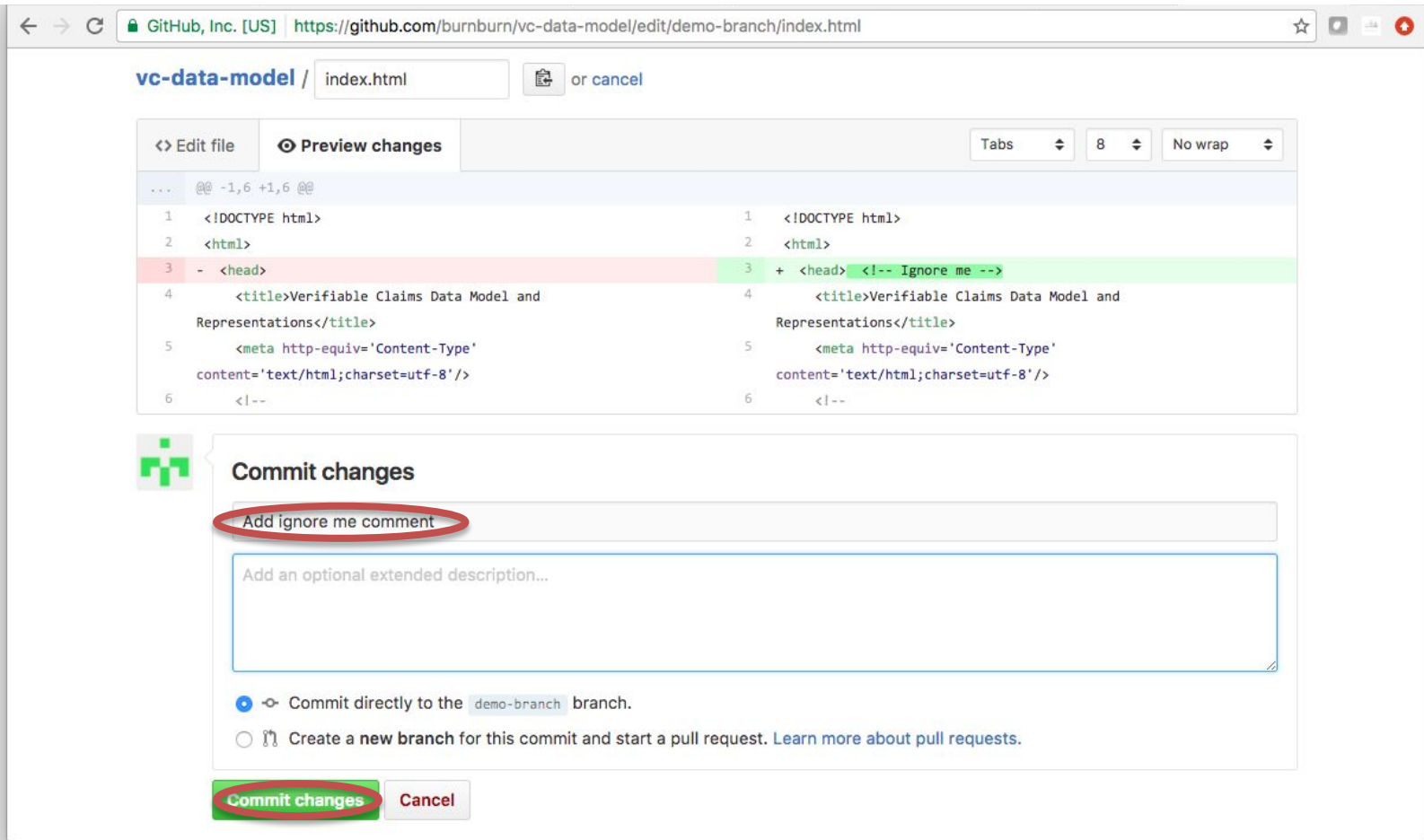
# Make your edits and click the Preview Changes tab



The screenshot shows a GitHub repository page for 'burnburn / vc-data-model'. The browser address bar shows the URL 'https://github.com/burnburn/vc-data-model/edit/demo-branch/index.html'. The repository name and 'forked from opencreds/vc-data-model' are visible. The 'Code' tab is selected, and the file 'index.html' is being edited. The 'Preview changes' tab is highlighted with a red circle. The code editor shows HTML and JavaScript code, with a comment '



# Fill in commit message and commit

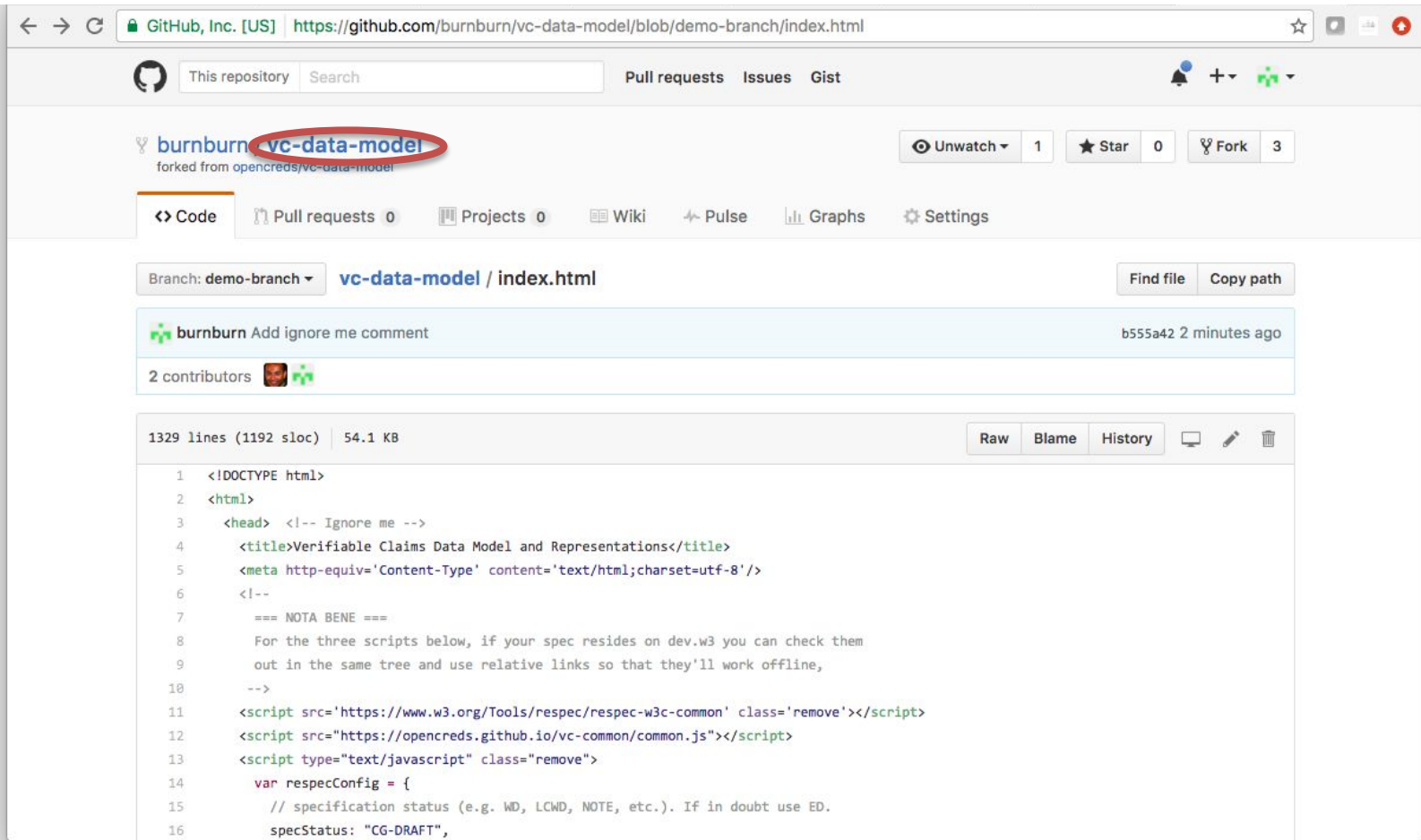


The screenshot shows the GitHub web editor interface for editing a file named `index.html` in the `demo-branch`. The editor displays a diff view comparing the current state with a previous commit. The changes are as follows:

Line	Original	Current
1	<code>&lt;!DOCTYPE html&gt;</code>	<code>&lt;!DOCTYPE html&gt;</code>
2	<code>&lt;html&gt;</code>	<code>&lt;html&gt;</code>
3	<code>- &lt;head&gt;</code>	<code>+ &lt;head&gt; &lt;!-- Ignore me --&gt;</code>
4	<code>&lt;title&gt;Verifiable Claims Data Model and Representations&lt;/title&gt;</code>	<code>&lt;title&gt;Verifiable Claims Data Model and Representations&lt;/title&gt;</code>
5	<code>&lt;meta http-equiv='Content-Type' content='text/html;charset=utf-8' /&gt;</code>	<code>&lt;meta http-equiv='Content-Type' content='text/html;charset=utf-8' /&gt;</code>
6	<code>&lt;!--</code>	<code>&lt;!--</code>

Below the editor, the **Commit changes** section is visible. It includes a text input field for the commit message, which contains the text `Add ignore me comment`. Below this is a larger text area for an optional extended description. At the bottom, there are two radio button options:  `Commit directly to the demo-branch branch.` and  `Create a new branch for this commit and start a pull request. Learn more about pull requests.` At the very bottom, there are two buttons: **Commit changes** and **Cancel**.

# Return to the head of your repository



The screenshot shows a GitHub repository page for 'burnburn/vc-data-model'. The repository is a fork of 'opencreds/vc-data-model'. The current branch is 'demo-branch' and the file being viewed is 'index.html'. The file content is HTML code with a comment to ignore it and a script to load external resources. The file size is 54.1 KB and it contains 1329 lines (1192 sloc).

Branch: demo-branch **vc-data-model** / index.html

Find file Copy path

burnburn Add ignore me comment b555a42 2 minutes ago

2 contributors

1329 lines (1192 sloc) | 54.1 KB

Raw Blame History

```
1 <!DOCTYPE html>
2 <html>
3 <head> <!-- Ignore me -->
4 <title>Verifiable Claims Data Model and Representations</title>
5 <meta http-equiv='Content-Type' content='text/html; charset=utf-8'/>
6 <!--
7 === NOTA BENE ===
8 For the three scripts below, if your spec resides on dev.w3 you can check them
9 out in the same tree and use relative links so that they'll work offline,
10 -->
11 <script src='https://www.w3.org/Tools/respec/respec-w3c-common' class='remove'></script>
12 <script src="https://opencreds.github.io/vc-common/common.js"></script>
13 <script type="text/javascript" class="remove">
14     var respecConfig = {
15         // specification status (e.g. WD, LCWD, NOTE, etc.). If in doubt use ED.
16         specStatus: "CG-DRAFT",
```

# Compare and Pull Request

The screenshot shows the GitHub interface for the repository 'burnburn / vc-data-model'. The repository is forked from 'opencreds/vc-data-model'. It has 145 commits, 2 branches, 0 releases, and 8 contributors. The 'demo-branch' is highlighted as a recently pushed branch (3 minutes ago). A green button labeled 'Compare & pull request' is circled in red. Below the branch list, there are buttons for 'Branch: gh-pages', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. The commit history table shows the following entries:

Commit	Message	Time
gkellogg	Create LICENSE.md	27 days ago
CONTRIBUTING.md	Create CONTRIBUTING.md	27 days ago
LICENSE.md	Create LICENSE.md	27 days ago
index.html	Minor language fixes for issue tracking.	28 days ago
privacy-spectrum.svg	Move to Data Model and Representations to separate repo.	28 days ago

# Update title, add description, and create PR

GitHub, Inc. [US] | <https://github.com/opencreds/vc-data-model/compare/gh-pages...burnburn:demo-branch?expand=1>

## Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

base fork: `opencreds/vc-data-model` base: `gh-pages` ... head fork: `burnburn/vc-data-model` compare: `demo-branch`

✓ **Able to merge.** These branches can be automatically merged.

Please review the [guidelines for contributing](#) to this repository.

**Add ignore me comment**

Write Preview AA B i “ < > ↻ ☰ ☷ ☰ ↶ @ 🏠

This is a demo PR for the 13 December call.

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

Allow edits from maintainers. [Learn more](#)

**Create pull request**

# Note that you are now viewing the PR in the original repo

The screenshot shows a GitHub pull request (PR) page for the repository 'opencreds / vc-data-model'. The URL in the browser is 'https://github.com/opencreds/vc-data-model/pull/28'. The page title is 'Add ignore me comment #28'. The PR is open and shows that 'burnburn' wants to merge 1 commit into 'opencreds:gh-pages' from 'burnburn:demo-branch'. The PR description is 'This is a demo PR for the 13 December call.' Below the description, there is a section for 'Add more commits by pushing to the demo-branch branch on burnburn/vc-data-model.' A green checkmark indicates 'This branch has no conflicts with the base branch'. The right sidebar shows 'Reviewers' (No reviews), 'Assignees' (No one assigned), 'Labels' (None yet), 'Projects' (None yet), and 'Milestone' (No milestone). A notification bubble says 'You can now request reviews from specific people you work with. Learn more. Got it!'. The bottom of the page shows a rich text editor with 'Write' and 'Preview' buttons.

# Upstreams . . .

- There's a problem with this . . .
- What if you do this, then the original repo is modified, then you want to do another PR?
  - In this case your repo doesn't match the original, so your edits are based on an out-of-date copy
  - If your edits are in an unchanged section it may work
  - Otherwise, stay tuned for Part II . . .