

URL Shortener

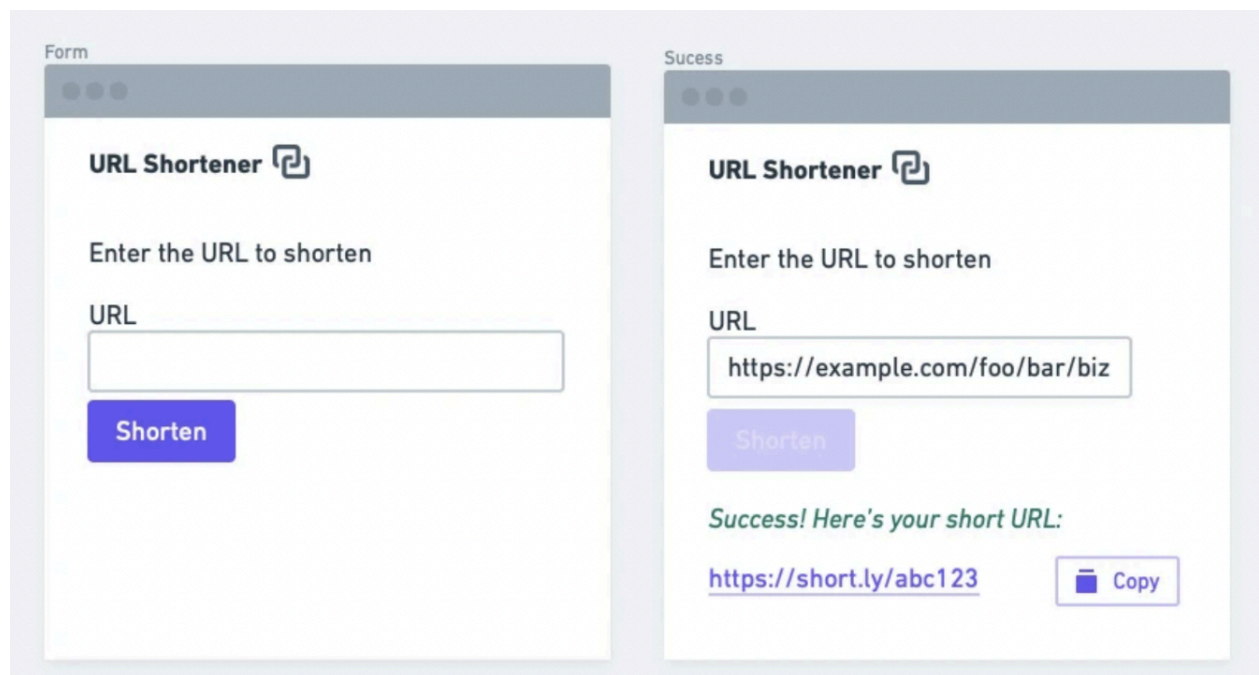
Allow users to create short versions of links to make them easier to speak and share.

For example, `https://some.place.example.com/foo/bar/biz` being shorted to `https://short.ly/abc123`

Having a short URL can be nice for making it easier for people to type it in, whether hearing it on a podcast or reading it on a poster. Sure, QR codes sort of stole the show for the latter use case, but it's still a good learning project!

Mock-up

Here's what the simple interface could look like:



Requirements

- Build a web page with a form for entering a URL
- When the form is submitted, return a shortened version of the URL
- Save a record of the shortened URL to a database
- Ensure the slug of the URL (abc123 in the screenshot above) is unique

- When the shortened URL is accessed, redirect to the stored URL -
- If an invalid slug is accessed, display a 404 Not Found page

Required Tech

- React w/ typescript for the front end
- Node.JS w/ typescript for the backend
- Docker

Extra Credit

- Add support for accounts so people can view the URLs they created -
- Validate the URL provided is an actual URL
 - Display an error message if invalid
- Make it easy to copy the shortened URL to the clipboard -
- Allow users to modify the slug of their URL
- Track visits to the shortened URL
- Add rate-limiting to prevent bad-actors from spamming the service -
- Update API to follow a known spec (such as [json:api](#))

Output format

Please submit the ready task in a format of a github link for a quicker review.