

Elfin - URL Shortener

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I was given this task by Uprise, as an exercise to show my capabilities. This URL shortener is built with Scala 2.11.7 and the Lift 2.6 Framework.

Disclaimer: This is the first Lift project that I have coded so please forgive any horrible breaking of convention that I might have unintentionally made.

If you have any questions,
feel free to contact me on:

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1 Background

The task was to make a scalable URL shortener that deterministically shortened the URL's fed to it.

2 Design decisions

The shortener core code was written with the help of MurmurHash3 which I use to convert the $URL \Rightarrow Int \Rightarrow String \Rightarrow URL$.

Another design choice that was considered was using an auto incremented value in a database that was to be converted to a string. This would have yielded shorter strings and avoided the problem with collisions that occur when using short hashes. The first design choice was chosen as the exercise stated that the same link preferably always should produce the same short URL. It also gives the advantage that the keys does not have to be synchronized on creation to the distributed KV-store, they still have to be synchronized for fetching.