

# URL SHORTENER

A url shortener is a component that, given an arbitrary long URL creates a shortened version. You own the domain *sho.com* and you want to offer the URL shortening service

<http://website.com/loooooooooooooooooong>

<http://sho.com/a1b2>

*The recommendation is to follow a step-by-step list of desired features for the URL shortener creation.*

## Support a basic SEO url shortener

Give a customer the possibility to have a custom SEO keyword on sho.com to associate to their shortened URL.

eg.

INPUT

url: <http://somens.com/abc/1/page.html>

seo keyword: myLovelyPage

OUTPUT

url: <http://sho.com/myLovelyPage>

# Support a generic url shortener

Give a customer the possibility to shorten its URL on sho.com associating to it a random 6 chars string that can be made by letters and numbers

INPUT

url: <http://somens.com/abc/1/page.html>

OUTPUT

url: <http://sho.com/H33K9J>

## Retrieve original URL given a SEO/Random shortened URL

Give a customer the possibility to know  
the original URL given a shortened one

INPUT

url: <http://sho.com/H33K9J>

OUTPUT

url: <http://somews.com/abc/1/page.html>

*Note:* storage can be considered a  
simple in memory saving of the mapping

# Collision Preventing

Detect collisions during URL creation phase -- whenever a SEO URL is requested but an equal one already exists prevents the overwriting of the former one. Same thing for the randomly generated one

## Support Time to live

Give the end customer the possibility to enrich his request of shortening with a time to live that will remove the shortened URL entry