

Given a (typically) long url, design a service that generates a shorter, unique alias for it? (e.g. tinyurl, bit.ly, google url shortener etc.).

a) How you would generate a unique ID for each URL

unique ids will be generate automatically by the help of a custom function where it will combine a-z and A-Z with a string length what will be set by the admin

b) How you would generate unique IDs at scale (8K+ requests per second)

for this scale i would use a framework and create a RESTful api what

c) How your service would handle redirects

once the link lands on the url, the code gets the whole url, explodes it and select the section required to get the unique field that represents the long url

d) How you would support custom short URLs

assign unique fields

e) How you would delete expired URLs

For deleted urls, the user will have a dashboard where they can monitor all their links and delete the link they are not interested in. The admin will also have their dashboard where they can change the status of a link from active to expired and then later delete the links in period of time manually.

f) How you would track click stats

once a link is clicked, before the user is redirected to the actual long link, the code will write data to the database where all the necessary data will be stored and the user will be able to see the data

g) Draw flowcharts diagrams, sequence diagrams, architecture diagram and deployment diagram for this service.

<http://sh.pacisvorgel.co.ke/> link to the prototype