

# Solventum Coding Exam

## Brief

ShortLink is a URL shortening service where you enter a URL such as <https://example.com/library/react> and it returns a short URL such as <http://short.est/GeAi9K>.

## Tasks

- Implement assignment using:
  - Language: **Java**
  - Framework: **Spring**
  - Two endpoints are required
    - /encode - Encodes a URL to a shortened URL
    - /decode - Decodes a shortened URL to its original URL.
  - Both endpoints should return JSON
  - Both endpoints should only process limited number of requests concurrently. This number should be configurable when the service is started. For example if it is set to handle 10 requests concurrently, then the 11<sup>th</sup> concurrent request should send back an appropriate http response
- There is no restriction on how your encode/decode algorithm should work. You just need to make sure that a URL can be encoded to a short URL and the short URL can be decoded to the original URL. **You do not need to persist short URLs to a database. Keep them in memory.**
- Provide detailed instructions on how to run your assignment in a separate markdown file
- Provide API tests for both endpoints

## Evaluation Criteria

- **Java** best practices
- API implemented featuring a /encode and /decode endpoint
- Show us your work through your commit history
- Completeness: did you complete the features? Are all the tests running?
- Correctness: does the functionality act in sensible, thought-out ways?
- Maintainability: is it written in a clean, maintainable way?

All the best and happy coding.