

Files: Converter.py
Usage.py

Converter has a class message which has two methods, one to decode and one to encode.
Usage.py shows how to utilize both functions

Approach: I used a manual conversion approach, by slicing the string and calculating individual values using int() function or the two's complement.

Scalability:

I would have these scripts on a server and have a load balancer to handle multiple requests. If we use a service like AWS, we can use EC2, select the size of the server we need and upgrade it based on alerts of overuse.