1.Describe the steps you would take you design a URL shortening service.

- Create a back-end api to process the url that was input by the use. The api consists of 2 end point, Getall url and process url to the database and processing the url and adding to the database (Local Mysql).

- The front-end have a landing page for inputting url, and have a table to show all the data from the database.

2. Create a UML Sequence Diagram of the service.

A diagram of a process

Description automatically generated

3. Design a class diagram for a UML diagram.

@startuml

Class ShortenedLink{

-id:int

-originalUrl: String

-shortUrl:String

}

@enduml

4. Develop an Entity Relationship Diagram for this service.

Noted im only using 1 table for this service

ShortenedLink

- id (PK)

- originalUrl

- shortUrl

PK: Primary Key

Git:

1 (Bonus) Create a Kubernetes/Docker Compose file to deploy the solution.

As of now I don’t have any experience in docker but I will do It if given a chance.