

Home assignment

You are provided with the [Titanic passenger data](#) as a CSV file

1. Write a web service that exposes the following functionality
 - a. Return a histogram (bar chart) of Fare prices in percentiles
 - i. X axis for percent
 - ii. Y axis for counting how many of the prices falls under each percentile
 - b. Given a PassengerId return all passenger data
 - c. Given a PassengerId and attribute list, return only requested attribute list from passenger data
 - d. Return a list of all passengers
 - e. Show the web service API's using [Swagger](#) (an OpenAPI implementation)

Notes:

- a. You can use any python library of your choice to complete the task
 - b. Show how you test your code
 - c. Use Python [clean coding principals](#) to write your code
2. Export CSV to [sqlite3](#)
 - a. Change code from question 1 to use sqlite database
3. Bonus tasks
 1. Expose the service as a docker container
 2. Expose the DB that contains Titanic data as a docker container
 3. Show how we can get question 1 functionality with the 2 containers
 4. Use docker desktop to deploy the above on docker desktop Kubernetes
 5. Compose a Helm chart definition for the deployment