Name –

Dockerfile for nginx 1.19

Write a Dockerfile to run nginx version 1.19 in a container. Choose a base image, considering security best practices, and aim for the image to pass a container image security test  
Your answer

Kubernetes StatefulSet

Write a Kubernetes StatefulSet to deploy the nginx container from the previous question. Utilize persistent volume claims and define resource limits for optimal performance.  
Your answer

Build a Deployment Pipeline

Set up a streamlined build and deployment pipeline for the nginx application using GitHub Actions or an equivalent CI/CD tool. Ensure the pipeline covers building the Docker image, running security checks, and deploying to a Kubernetes cluster.

Your answer

Text Manipulation Problem

Choose or create a text manipulation problem that involves using awk, sed, tr, and/or grep. Solve the problem, considering efficiency and readability.

Your answer

Text Manipulation with an Object Orientated Programming Language

Solve the text manipulation problem from the previous question using any Object Orientated Programming language of your choice. Provide a clear and well-documented solution.

Your answer

Sum of Even Fibonacci Numbers

Write a program in a Object Orientated Programming language of your choice to calculate the sum of the first 100 even-valued Fibonacci numbers. Consider efficiency and demonstrate good coding practices.

Your answer

Intersection of Sorted Arrays

Write a function in a Object Orientated Programming language of your choice that takes two sorted arrays of integers as input and returns an array containing numbers common to both arrays without duplicates.

Your answer

Decimal Digit Transformation

Write a function in an Object Orientated Programming language of your choice that, when passed a decimal digit X, calculates and returns the value of X + XX + XXX + XXXX. For example, if X is 3, the function should return 3702 (3 + 33 + 333 + 3333). Ensure the function handles valid inputs and provides meaningful error messages for invalid inputs.

Your answer