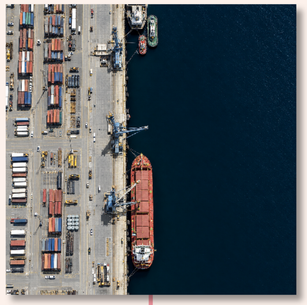
# S1: *Evidence-of-Thought Supervised Fine-Tuning*

Query: What does this waterfront layout reveal about its function ?



SFT Update

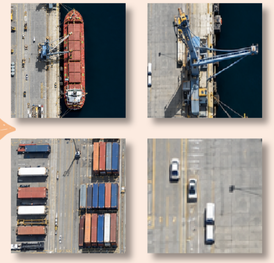
**Base Model**

Input

## Observe

<Description>
Let me first describe the visible scene. A nearly straight quay separates the developed land on the left from dark open water on the right...
</Description>

## Analyze



+

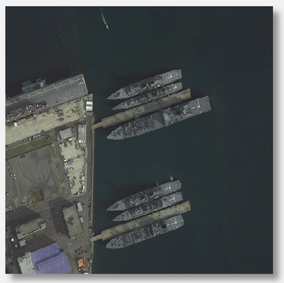
<Analysis>
The question asks what function is indicated by the waterfront layout. The relevant observations are ...
</Analysis>

## Conclude

<Answer>
This is a container terminal. Its layout connects a container-carrying vessel, quay cranes, and an organized...
</Answer>

# S2: *Relational Transfer Policy Optimization*

*Anchor*



Q:What is the berthing arrangement of the main vessels in the image ?

*Briging*



**#A K Rollouts**

<description>
<analysis>
<answer>

**#B K Rollouts**

<description>
<analysis>
<answer>

***Gravity Verifier***

Ground in evidence

*Evidence Card*



Same Input

Minimize $D_{KL}$

***Reference Model***

$M_1$

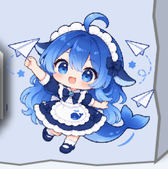
**#AB K Pairs**

<A Trace>
+
<B Trace>

***Flight Verifier***

Transfer where justified

*Boundary Card*



***Task Check***

answer contract

$\text{ans}(y_{i,k}) \vDash \text{contract}_i$

$r_k^{task}$

$v_{i,k}$

$R_k(G,F)$

$F_1$ $F_2$ $F_3$ ... $F_k$

$\bar{G}_1$ $\bar{G}_2$ $\bar{G}_3$ ... $\bar{G}_k$

$R_1$ $R_2$ $R_3$ ... $R_k$

**Group Computation** $\hat{A}_k^A = \hat{A}_k^B = \hat{A}_k(G,F)$

$A_1$ $A_2$ $A_3$ ... $A_k$

**Policy Update**