



External constraints:

- To depart, a shipment must be filled with passengers and/or filled with merchandises.
- When a shipment reaches its arrival port, it must empty itself entirely (passengers and merchandises), then stay on site for 2 weeks before it can depart again.
- There is 3 types of shipment:
  - Short (< 1000km).
  - Average (between 1000km and 20000km)
  - Long (> 2000km)
- Average and long shipments cannot contain perishable goods.
- There are intercontinental shipments, but it is only possible for category 5 ships.
- A shipment with a distance inferior to 1000km cannot be considered intercontinental.
- Except for intercontinental travel, the class of a shipment must be the continent of arrival.
- Shipments with a distance of more than 2000km must have at least one leg (near the middle ±500km).
- A ship can stay in a port only if its category is equal or smaller to the port's category.
- For shipments with at least one leg, a ship can resupply in any port but to trade or stay the port of arrival must have a category equal or superior to its ship's category.
- The volume \* quantity of every cargo in a shipment cannot be greater than its ship tonnage capacity.
- During a war, a ship owned by one of its belligerent cannot stay in the port of an enemy.
- The categories of products forms disjoint and total sets.