Predicting the transport cost of individual shipments

Short description:
Customers of the logistic industry would like to receive an immediate cost estimation for their transport orders; however, due to a manual/tedious process the dispatchers are unable to provide such. This mini project aims to accurately **predict the cost of a shipment** based on its attributes.

Dispatchers in the logistic industry must provide a cost immediately to the customer shipment orders

As-is situation

- **Logistic companies** usually simply act as the intermediary between a **customer** who wants to ship its goods and a **carrier** who can transport those shipments.
- Logistics **dispatchers** get customers orders and must assign a **cost** for the transportation of those shipments.

Issue

- The **process** to assign the cost is not straightforward, relies on human interactions/decisions and negotiations with the carrier can take several days.
- The customer wants to know a cost price **immediately**.
- The **dispatcher** has no way to provide an immediate cost approximation: he first needs to contact the potential carriers.

Objective

- Build a model which is able to **predict the cost** based on general shipment attributes
- **Evaluate** the performance of your model

A shipment data set was provided which includes locations, attributes, dates and the cost paid

Shipment Data

- **Historic shipment data** was provided by a logistic company, which will be kept as confidential
- Data has **9 columns** and over **250K rows**
- All shipment attribute values have previously being **normalized**
- Latitude, longitudes and dates have been **shifted**
- Column **cost** represents our **target value**