Question 1
You are a new data scientist. You have been tasked with coming up with a solution for reducing traffic congestion and improving transportation efficiency. How would you go about it? 1 / 1 point

Suggest creating more parking lots and garages in the city

Gather and analyze streetcar operations data and identify congested routes

Suggest implementation of surge charges for ride-sharing services.

Suggest implementation of strict speed limits and traffic fines

Correct
Correct! By doing this you would be using data science to reduce traffic congestion and improve transportation efficiency in a city.

Question 2
Imagine you take a taxi ride where the initial fare is a fixed amount, and the fare increases based on both the distance traveled and the time spent in traffic. Which concept in data analysis does this scenario closely resemble? 1 / 1 point

Unstructured data extraction

Data visualization with R

Nearest neighbor algorithm

Regression analysis

Correct
Correct! The scenario of a taxi ride with a fixed base fare and additional charges based on distance and time is analogous to regression analysis, where a constant and relationships between variables are determined.

Question 3
You have to pick a file format which meets the following conditions: a) is self-descriptive for internet-based information sharing b) readable by both humans and machines c) Facilitates easy data sharing between different systems. Which file format would you pick? 1 / 1 point

Microsoft Excel Open XML Spreadsheet (XLSX)
Extensible Markup Language (XML)
JavaScript Object Notation (JSON)
Delimited text file formats (CSV/TSV)

Correct
Correct! XML is a markup language with defined rules for encoding data, making it self-descriptive, readable by both humans and machines, and suitable for data sharing between diverse systems.