**Your grade:** **100%**

Your latest: **100%** · Your highest: **100%** · To pass you need at least 66%. We keep your highest score.

Next item →

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 implementation of surge charges for ride-sharing services.

   ○ Suggest implementation of strict speed limits and traffic fines

   ○ Suggest creating more parking lots and garages in the city

   ⦿ Gather and analyze streetcar operations data and identify congested routes

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

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

   ⦿ Regression analysis

   ○ Data visualization with R

   ○ Nearest neighbor algorithm

   ✓ **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.

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)

   ○ Delimited text file formats (CSV/TSV)

   ⦿ Extensible Markup Language (XML)

   ○ JavaScript Object Notation (JSON)

   ✓ **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.