

## Linear Regression for Business Statistics

**Incorporating 'Categorical Variables' in a regression model.**

$$\text{Minutes} = \beta_0 + \beta_1 \text{REGA} + \beta_2 \text{REGB} + \beta_3 \text{Parcels} + \beta_4 \text{TruckAge}$$

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The parcel delivery service the delivery service wishes to find out the total time it will take to deliver **25 parcels** across **Region A**, **Region B** and **Region C** using a truck that is **10 years** old.

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Re-Cap, Dummy Variables

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- Needed for categorical variables in a regression model.

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- **Two rules for Dummy variables.**
  - I. 0 or 1 value.
  - II. Number of dummies is one less than number of categories.

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  - Numerical variable

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