

## Part A

- **DOMAIN:** Automobile
- **CONTEXT:** The data concerns city-cycle fuel consumption in miles per gallon to be predicted in terms of 3 multivalued discrete and 5 continuous attributes.
- **DATA DESCRIPTION:**

<b>cylinders:</b> multi-valued discrete	<b>acceleration:</b> continuous
<b>displacement:</b> continuous	<b>model year:</b> multi-valued discrete
<b>horsepower:</b> continuous	<b>origin:</b> multi-valued discrete
<b>weight:</b> continuous	<b>car name:</b> string (unique for each instance)
<b>mpg:</b> continuous	

- **PROJECT OBJECTIVE:** To understand K-means Clustering by applying on the Car Dataset to segment the cars into various categories.

## Part B

- **DOMAIN:** Automobile
- **CONTEXT:** The purpose is to classify a given silhouette as one of three types of vehicle, using a set of features extracted from the silhouette. The vehicle may be viewed from one of many different angles.
- **DATA DESCRIPTION:** The data contains features extracted from the silhouette of vehicles in different angles. Four "Corgie" model vehicles were used for the experiment: a double decker bus, Cheverolet van, Saab 9000 and an Opel Manta 400 cars. This particular combination of vehicles was chosen with the expectation that the bus, van and either one of the cars would be readily distinguishable, but it would be more difficult to distinguish between the cars. All the features are numeric i.e. geometric features extracted from the silhouette.
- **PROJECT OBJECTIVE:** Apply dimensionality reduction technique – PCA and train a model and compare relative results.