# Understanding the Data

1. Data set name is Material Compressive Strength Experimental Data.
2. It contains 9 columns namely : Material Quantity (gm), Additive Catalyst (gm), Ash Component (gm), Water Mix (ml), Plasticizer (gm), Moderate Aggregator, Refined Aggregator, Formulation Duration (hrs), Compression Strength MPa
3. These column names provide information about the different components, quantities, and parameters involved in the cement material compressive strength experiment. Each column means :

* Material Quantity (gm): This column represents the quantity of the main cement material used in the experiment, measured in grams. It indicates the amount of the primary cement component.
* Additive Catalyst (gm): This column represents the quantity of an additive catalyst used in the experiment, also measured in grams. Additive catalysts are substances added to the cement mixture to enhance specific properties or accelerate the curing process.
* Ash Component (gm): This column represents the quantity of an ash component used in the experiment, measured in grams. Ash components may include materials like fly ash or other supplementary cementitious materials that can affect the properties of the cement mixture.
* Water Mix (ml): This column represents the volume of water added to the cement mixture, measured in milliliters. Water is an essential component in cement mixing, as it enables the hydration process and helps form the cement paste.
* Plasticizer (gm): This column represents the quantity of a plasticizer used in the experiment, measured in grams. Plasticizers are admixtures added to the cement mixture to improve workability and reduce water content while maintaining desired fluidity.
* Moderate Aggregator: This column likely represents a moderate type of aggregator used in the experiment. However, without additional context or information, it is unclear what specific aspect or property this aggregator refers to. Aggregators generally refer to materials added to the cement mixture to enhance certain characteristics.
* Refined Aggregator: This column likely represents a refined type of aggregator used in the experiment. Similar to the previous column, without further information, it is difficult to determine the exact purpose or properties associated with this particular aggregator.
* Formulation Duration (hrs): This column represents the duration or time span of the cement mixture's formulation process, measured in hours. It indicates the length of time for which the various components are mixed together before further processing or testing.
* Compression Strength MPa: This column represents the measured compression strength of the cement samples in megapascals (MPa). Compression strength refers to the ability of the cement material to withstand applied compressive forces without breaking or deforming.

1. There are total 6139 rows, out of which 109 rows have null values for all the 8 columns.