# Concrete Compressive Strength Dataset

# Motivation

The concrete compressive strength dataset was compiled by the Department of Civil Engineering, Chung-Hua University in 1998 for the study of concrete compressive strength.

# Composition

* The concrete compressive strength is a highly nonlinear function of age and ingredients. The actual concrete compressive strength (MPa) for a given mixture under a specific age (days) was determined from laboratory test samples.
* The data consists of 9 columns and 1030 rows.
* Each row represents a sample of concreate which was tested under compressive load to determine its compressive strength which is given in the last column.
* The first seven columns quantify the proportion of the ingredients, such as cement, fly ash and superplasticizer. The eighth column gives the curing time in days.
* There is no missing data.

# Collection process

* The original paper from the Chung-Hua University claims the dataset was compiled from 13 smaller sets, which are referenced, but gives no timeline. Nor does it say how the data was acquired.

# Pre-processing/cleaning/labelling

* The raw, labelled data is available in a CSV format which can be downloaded from the Data Science Dojo https://code.datasciencedojo.com.

# Uses

* The data set is nearly twenty years old, so newer data may be available.
* As a scientific dataset there is no issues related to the unfair treatment of individuals or groups.

# Distribution

* The dataset is freely available from https://code.datasciencedojo.com
* Copyright was owned by Data Science Dojo up until 2020.

# Maintenance

* There is no indication that the dataset is maintained or updated.