

Case Base Modeling and Retrieving

Purpose: Gain insight into (a) core concepts in case-based reasoning, and (b) how case based reasoning can be put into practice.

Experimenting with using an existing CBR program, myCBR, to get hands-on experience with how a CBR system may work. The myCBR¹ tool is a stand-alone application that we will need to download and install.

Case Modelling

Creating a new concept called food, which will be used as the basis for the rest of this project.

Creating 4-6 relevant attributes for the food concept, including name, cost, and size.

name – a purely descriptive string.

cost – a float representing the approximate value of the item.

size – a symbol type with at least *small*, *medium*, and *large* as allowed values.

Creating at least 10 instances of the food concept, including *banana*, *pea*, and *hamburger*.

Case Retrieval

Creating a global similarity measure for the food concept. It should ignore the name attribute. Creating different similarity measures for the cost attribute, including one where the similarity is 1 for an exact match, and otherwise decreasing towards 0 the further away the cost values are apart. Selecting the other attribute similarity modes and comparison functions as we see fit.

Performing few different retrieval queries.

¹The program can be downloaded from <http://mycbr-project.net/download.html>, where you can also find a number of example projects to play around with.