## Variable Definitions Key for JSON

## **Universal Values**

These are attributes that all definitions can and should use. All variables MUST include a name, and a dataset UNLESS the new variable is using values from an already defined variable. If the variable is using a dataset, the variable MUST also include a function attribute. Some attributes can be omitted, and their default values are provided below.

- o "name" name of the variable
- o "dataset" name of the dataset to be used (Interactions or Events)
- o "scope" determines if the variable is a daily or weekly calculation. If the variable is daily, this will create seven variables instead of one, each named: name\_dayofweek. (Defaults to weekly)
- o "function" defines the action to be taken after the total uses has been counted. ["x", "x"] means do nothing. ["x", "x/7"] means take the total and divide by seven (this would for example give you the daily average)
- o "defined-variable-x" identifies an already defined variable to use for the x variable in the function ["x", ...]. This means the program will use this variable value instead of counting uses.

## **Interactions Dataset Values**

These are attributes that variables using the interactions dataset should use. When using interaction datasets always include elementIDs. The rest can be omitted and have default values.

- o "elementIDs" a list of the elementIDs to be counted per user. When the list is empty, will count all elementIDs.
- o "distinct" boolean value that when true, the program will only count distinct uses. (Defaults to false)
- o "tokens" a list of tokens to filter uses by. When this is omitted, there is no token filtering.
- o "type" a string to filter the rows of the interaction table by with values in the type column.
- o "source" a string name of the source by which this interaction came from (web or app)

## **Event Dataset Values**

These are attributes that the variables using the events dataset should use.

- o "sum" this is the name of the column to summate values from.
- o "count" this is the name of the column to count row entries from. (sum and count cannot be defined in the same definition).
- o "healthTrackType" a list of types in the healthTrackType column to filter by.
- o "completed" Boolean value that when true, the program will only count completed events, using the value in the completed column. (Defaults to false)

o "filter\_by" – a list of pairs to filter the sum or count by. Each element in the filter\_by list will look like ["column\_name", row\_value]. The row\_value can be a: integer, string, a boolean, or a list of integers.