Database Schema

1. This database schema is only designed for stepping-supported devices/apps.

2. The green lines/arrows are indicating the linkage between tables by linking primary key and foreign key. All other colour lines/arrows are demostrating the mapping relationship from the existing device/app dataset to the universal database.

3. Source table will include all the device/app based information, and they should be unique each dataset.

4. All variable_name and vaiable_value fields are used for user's customised fields: variable_name for name/label, vaiable_value for value, such as unique id.

5. All add_data fields are used for those uncommon variables which will be stored as JSON format in the filed. This approach will be capable to maximally tolerate any specific variables.
eg: add_data for GENEActiv in Step Count table will be something like below
{light level (lux): 38; button (1/0): 0; temperature (°C): 27.7; sum of vector magnitudes: 47.86; x axis standard deviation: 0.0405; y axis standard deviation: 0.0486; z axis standard deviation: 0.184; peak lux: 87;}

6. All the datetime field will only accept the format of: dd/MM/yyyy hh:mm:ss
The datetime will need to be converted to that universal format by users before it is uploaded.

7. Time stamp field in Step Count table is used the time point when devices recorded the activity. It generally stands for the end time of each record.

8. Duration (in seconds) is time interval starts from the end of the previous record. On most time series datasets, it should be pre-defined by users. eg: 15 seconds, 60 seconds. On the event/activity based datasets, it is just the duration of the whole event/activity.

9. Steps and three axis variables will need to be provided either.

10. After sign up, users need to fill out Study form and Source form, and then import the participant dataset that will be linking to the study they just created. After that they can import the stepping datasets which will be linking to participants and the device/app they just created.