**Code book**

Information about the variables:

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable Names** | **Description** | **Units** | **Type of entries** |
| Subject | An identifier of the subject who carried out the experiment. | N/A | 1,2,3...30 |
| Activity\_Name | Name of the activity the subject was performing at time of measurement | N/A | Laying; Sitting; Standing; Walking; Walking downstairs; Walking upstairs |
| tBodyAccmeanX | Time domain body mean acceleration in the X direction | standard gravity unit g | Decimal |
| tBodyAccmeanY | Time domain body mean acceleration in the Y direction | g | Decimal |
| tBodyAccmeanZ | Time domain body mean acceleration in the Z direction | g | Decimal |
| tBodyAccstdX | Time domain body mean acceleration standard deviation in the X direction | g | Decimal |
| tBodyAccstdY | Time domain body mean acceleration standard deviation in the Y direction | g | Decimal |
| tBodyAccstdZ | Time domain body mean acceleration standard deviation in the Y direction | g | Decimal |
| tGravityAccmeanX | Time domain gravity mean acceleration in the X direction | g | Decimal |
| tGravityAccmeanY | Time domain gravity mean acceleration in the Y direction | g | Decimal |
| tGravityAccmeanZ | Time domain gravity mean acceleration in the Z direction | g | Decimal |
| tGravityAccstdX | Time domain gravity mean acceleration standard deviation in the X direction | g | Decimal |
| tGravityAccstdY | Time domain gravity mean acceleration standard deviation in the Y direction | g | Decimal |
| tGravityAccstdZ | Time domain gravity mean acceleration standard deviation in the Y direction | g | Decimal |
| tBodyGyroMagmean | Time domain body mean angular velocity | rad/sec | Decimal |
| tBodyGyroMagstd | Time domain body mean angular velocity standard deviation | rad/sec | Decimal |

2. Summary choices:

The requirement was to have the data grouped by subject and by activity. The summary choice was made in this order. This allows a quick review of the data per subject for each activity.

3. Study Design:

The data was collected from a dataset provided from the courser website which was presumed to be taken from the Human Activity Recognition Using Smartphones Data Set available online.