CodeBook - Human Activity Recognition using Smartphones Tidy Data

Notes:

1. Prefix 't' represents a time domain signal whereas 'f' represents a frequency domain signals.
2. All of the below variables are estimated by averaging for each activity for each subject except first 3 columns.
3. Following variables are expressed as –

variableName	variableType
Description	

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activity factor

Activity type

- WALKING
- WALKING_UPSTAIRS
- WALKING_DOWNSTAIRS
- SITTING
- STANDING
- LAYING

subject integer

Subject ID in the range 1 to 30

frequency integer

Frequency counting occurance of each activity for each subject

tbodyacc.meanx numeric

Body acceleration mean along x direction

tbodyacc.meany numeric

Body acceleration mean along y direction

tbodyacc.meanz numeric

Body acceleration mean along z direction

tbodyacc.stdx numeric

Body acceleration standard deviation along x direction

tbodyacc.stdy numeric

Body acceleration standard deviation along y direction

tbodyacc.stdz numeric

Body acceleration standard deviation along z direction

tgravityacc.meanx numeric

Gravitational acceleration mean along x direction

tgravityacc.meany numeric

Gravitational acceleration mean along y direction

tgravityacc.meanz numeric

Gravitational acceleration mean along z direction

tgravityacc.stdx numeric

Gravitational acceleration standard deviation along x direction

tgravityacc.stdy numeric

Gravitational acceleration standard deviation along y direction

tgravityacc.stdz numeric

Gravitational acceleration standard deviation along z direction

tbodyaccjerk.meanx numeric

Body acceleration jerk mean along x direction

tbodyaccjerk.meany numeric

Body acceleration jerk mean along y direction

tbodyaccjerk.meanz numeric

Body acceleration jerk mean along z direction

tbodyaccjerk.stdx numeric

Body acceleration jerks standard deviation along x direction

tbodyaccjerk.stdy numeric

Body acceleration jerk standard deviation along y direction

tbodyaccjerk.stdz numeric

Body acceleration jerk standard deviation along z direction

tbodygyro.meanx numeric

Body gyro signal mean along x direction

tbodygyro.meany numeric

Body gyro signal mean along y direction

tbodygyro.meanz numeric

Body gyro signal mean along z direction

tbodygyro.stdx numeric

Body gyro standard deviation along x direction

tbodygyro.stdy numeric

Body gyro standard deviation along y direction

tbodygyro.stdz numeric

Body gyro standard deviation along z direction

tbodygyrojerk.meanx numeric

Body gyro jerk mean along x direction

tbodygyrojerk.meany numeric

Body gyro jerk mean along y direction

tbodygyrojerk.meanz numeric

Body gyro jerk mean along z direction

tbodygyrojerk.stdx numeric

Body gyro jerks standard deviation along x direction

tbodygyrojerk.stdy numeric

Body gyro jerk standard deviation along y direction

tbodygyrojerk.stdz numeric

Body gyro jerk standard deviation along z direction

tbodyaccmag.mean numeric

Magnitude of body accelaeration mean along x,y,z direction calculated by Euclidian norm

tbodyaccmag.std numeric

Magnitude of body accelaeration standard deviation along x,y,z direction calculated by Euclidian norm

tbodyaccjerkmag.mean numeric

Magnitude of body acceleration jerk mean along x,y,z direction calculated by Euclidian norm

tbodyaccjerkmag.std numeric

Magnitude of body acceleration jerk standard deviation along x,y,z direction calculated by Euclidian norm

tbodygyromag.mean numeric

Magnitude of body gyro mean along x, y, z directions calculated by Euclidian norm

tbodygyromag.std numeric

Magnitude of body gyro standard deviation along x, y, z directions calculated by Euclidian norm

tbodygyrojerkmag.mean numeric

Magnitude of body gyro jerk mean along x, y, z directions calculated by Euclidian norm

tbodygyrojerkmag.std numeric

Magnitude of body gyro jerk standard deviation along x, y, z directions calculated by Euclidian norm

fbodyacc.meanx numeric

Body acceleration mean along x direction computed by applying FFT to time domain signals

fbodyacc.meany numeric

Body acceleration mean along y direction computed by applying FFT to time domain signals

fbodyacc.meanz numeric

Body acceleration mean along z direction computed by applying FFT to time domain signal

fbodyacc.stdx numeric

Body acceleration standard deviation along x direction computed by applying FFT to time domain signal

fbodyacc.stdy numeric

Body acceleration standard deviation along y direction computed by applying FFT to time domain signal

fbodyacc.stdz numeric

Body acceleration standard deviation along z direction computed by applying FFT to time domain signal

fbodyaccjerk.meanx numeric

Body acceleration jerk mean along x direction computed by applying FFT to time domain signal

fbodyaccjerk.meany numeric

Body acceleration jerk mean along y direction computed by applying FFT to time domain signal

fbodyaccjerk.meanz numeric

Body acceleration jerk mean along z direction computed by applying FFT to time domain signal

fbodyaccjerk.stdx numeric

Body acceleration jerk standard deviation along x direction computed by applying FFT to time domain signal

fbodyaccjerk.stdy numeric

Body acceleration jerk standard deviation along y direction computed by applying FFT to time domain signal

fbodyaccjerk.stdz numeric

Body acceleration jerk standard deviation along z direction computed by applying FFT to time domain signal

fbodygyro.meanx numeric

Body gyro mean along x direction computed by applying FFT to time domain signals

fbodygyro.meany numeric

Body gyro mean along y direction computed by applying FFT to time domain signals

fbodygyro.meanz numeric

Body gyro mean along z direction computed by applying FFT to time domain signals

fbodygyro.stdx numeric

Body gyro standard deviation along x direction computed by applying FFT to time domain signal

fbodygyro.stdy numeric

Body gyro standard deviation along y direction computed by applying FFT to time domain signal

fbodygyro.stdz numeric

Body gyro standard deviation along z direction computed by applying FFT to time domain signal

fbodyaccmag.mean numeric

Magnitude of body acceleration mean along x,y,z direction calculated by Euclidian norm computed by applying FFT to time domain signal

fbodyaccmag.std numeric

Magnitude of body acceleration standard deviation along x,y,z direction calculated by Euclidian norm computed by applying FFT to time domain signal

fbodyaccjerkmag.mean numeric

Magnitude of body acceleration jerk mean along x,y,z direction calculated by Euclidian norm computed by applying FFT to time domain signal

fbodyaccjerkmag.std numeric

Magnitude of body acceleration jerk standard deviation along x,y,z direction calculated by Euclidian norm computed by applying FFT to time domain signal

fbodygyromag.mean numeric

Magnitude of body gyro mean along x, y, z directions calculated by Euclidian norm computed by applying FFT to time domain signal

fbodygyromag.std numeric

Magnitude of body gyro standard deviation along x, y, z directions calculated by Euclidian norm computed by applying FFT to time domain signal

fbodygyrojerkmag.mean numeric

Magnitude of body gyro jerk mean along x, y, z directions calculated by Euclidian norm computed by applying FFT to time domain signal

fbodygyrojerkmag.std numeric

Magnitude of body gyro jerk standard deviation along x, y, z directions calculated by Euclidian norm computed by applying FFT to time domain signal