## Getting and Cleaning Data Project Codebook

| subject-activity   |
|--|
| Activity of the subject i  |
| There are 30 subjects and 6 activities, so subject-activity has 180 different values |
| Takes value in [-1;1]  |
|  |
| tBodyAcc-mean()-X  |
| Mean value of the x-component of the body acceleration signal (normalized)           |
| Takes value in [-1;1]  |
|  |
| tBodyAcc-mean()-Y  |
| Mean value of the y-component of the body acceleration signal (normalized)           |
| Takes value in [-1;1]  |
|  |
| tBodyAcc-mean()-Z  |
| Mean value of the z-component of the body acceleration signal (normalized)           |
| Takes value in [-1;1]  |
|  |
| tBodyAcc-std()-X   |
| Standard deviation of the x-component of the body acceleration signal (normalized)   |
| Takes value in [-1;1]  |
|  |
| tBodyAcc-std()-Y   |
| Standard deviation of the y-component of the body acceleration signal (normalized)   |
| Takes value in [-1;1]  |
|  |

tBodyAcc-std()-Z Standard deviation of the z-component of the body acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-mean()-X Mean value of the x-component of the gravitational acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-mean()-Y Mean value of the y-component of the gravitational acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-mean()-Z Mean value of the z-component of the gravitational acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-std()-X Standard deviation of the x-component of the gravitational acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-std()-Y Standard deviation of the y-component of the gravitational acceleration signal (normalized) Takes value in [-1;1] tGravityAcc-std()-Z Standard deviation of the z-component of the gravitational acceleration signal (normalized) Takes value in [-1;1]

tBodyAccJerk-mean()-X

Mean value of the x-component of the derivative of the body acceleration signal (normalized), called jerk

Takes value in [-1;1]

tBodyAccJerk-mean()-Y

Mean value of the y-component of the derivative of the body acceleration signal (normalized), called jerk

Takes value in [-1;1]

tBodyAccJerk-mean()-Z

Mean value of the z-component of the derivative of the body acceleration signal (normalized), called jerk

Takes value in [-1;1]

tBodyAccJerk-std()-X

Standard deviation of the x-component of the derivative of the body acceleration signal (normalized), called jerk

Takes value in [-1;1]

tBodyAccJerk-std()-Y

Standard deviation of the y-component of the derivative of the body acceleration signal (normalized), called jerk

Takes value in [-1;1]

tBodyAccJerk-std()-Z

Standard deviation of the z-component of the derivative of the body acceleration signal (normalized), called jerk

tBodyGyro-mean()-X Mean value of the x-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyro-mean()-Y Mean value of the y-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyro-mean()-Z Mean value of the y-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyro-std()-X Standard deviation of the x-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyro-std()-Y Standard deviation of the y-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyro-std()-Z Standard deviation of the z-component of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-mean()-X Mean value of the x-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-mean()-Y Mean value of the y-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-mean()-Z Mean value of the z-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-std()-X Standard deviation of the x-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-std()-Y Standard deviation of the y-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerk-std()-Z Standard deviation of the z-component of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyAccMag-mean() Mean value of the euclidean norm of the body acceleration signal (normalized) Takes value in [-1;1]

```
tBodyAccMag-std()
Standard deviation of the euclidean norm of the body acceleration signal (normalized)
Takes value in [-1;1]
tGravityAccMag-mean()
Mean value of the euclidean norm of the gravitational acceleration signal (normalized)
Takes value in [-1;1]
tGravityAccMag-std()
Standard deviation of the euclidean norm of the gravitational acceleration signal (normalized)
Takes value in [-1;1]
tBodyAccJerkMag-mean()
Mean value of the euclidean norm of the derivative of the body acceleration signal (normalized)
Takes value in [-1;1]
tBodyAccJerkMag-std()
Standard deviation of the euclidean norm of the derivative of the body acceleration signal
(normalized)
Takes value in [-1;1]
tBodyGyroMag-mean()
Mean value of the euclidean norm of the body angular velocity signal (normalized)
Takes value in [-1;1]
tBodyGyroMag-std()
Standard deviation of the euclidean norm of the body angular velocity signal (normalized)
Takes value in [-1;1]
```

tBodyGyroJerkMag-mean() Mean value of the euclidean norm of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] tBodyGyroJerkMag-std() Mean value of the euclidean norm of the derivative of the body angular velocity signal (normalized) Takes value in [-1;1] fBodyAcc-mean()-X Mean value of the x-component of the fast Fourier transform of the body acceleration signal (normalized) Takes value in [-1;1] fBodyAcc-mean()-Y Mean value of the y-component of the fast Fourier transform of the body acceleration signal (normalized) Takes value in [-1;1] fBodyAcc-mean()-Z Mean value of the z-component of the fast Fourier transform of the body acceleration signal (normalized) Takes value in [-1;1] fBodyAcc-std()-X Standard deviation of the x-component of the fast Fourier transform of the body acceleration signal (normalized)

fBodyAcc-std()-Y

Standard deviation of the y-component of the fast Fourier transform of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAcc-std()-Z

Standard deviation of the z-component of the fast Fourier transform of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccJerk-mean()-X

Mean value of the x-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccJerk-mean()-Y

Mean value of the y-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccJerk-mean()-Z

Mean value of the z-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccJerk-std()-X

Standard deviation of the x-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

fBodyAccJerk-std()-Y

Standard deviation of the y-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccJerk-std()-Z

Standard deviation of the z-component of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyGyro-mean()-X

Mean value of the x-component of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyGyro-mean()-Y

Mean value of the y-component of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyGyro-mean()-Z

Mean value of the z-component of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyGyro-std()-X

Standard deviation of the x-component of the fast Fourier transform of the body angular velocity signal (normalized)

fBodyGyro-std()-Y

Standard deviation of the y-component of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyGyro-std()-Z

Standard deviation of the z-component of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyAccMag-mean()

Mean value of the euclidean norm of the fast Fourier transform of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyAccMag-std()

Standard deviation of the euclidean norm of the fast Fourier transform of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyBodyAccJerkMag-mean()

Mean value of the euclidean norm of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

Takes value in [-1;1]

fBodyBodyAccJerkMag-std()

Standard deviation of the euclidean norm of the fast Fourier transform of the derivative of the body acceleration signal (normalized)

fBodyBodyGyroMag-mean()

Mean value of the euclidean norm of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyBodyGyroMag-std()

Standard deviation of the euclidean norm of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyBodyGyroJerkMag-mean()

Mean value of the euclidean norm of the fast Fourier transform of the body angular velocity signal (normalized)

Takes value in [-1;1]

fBodyBodyGyroJerkMag-std()

Standard deviation of the euclidean of the fast Fourier transform of the body angular velocity signal (normalized)