

## **Variables in the tidy data**

Tidy data contains 180 rows and 68 columns. Each row has averaged variables for each subject and each activity.

### **Only all the variables estimated from mean and standard deviation in the tidy set were kept.**

- mean(): Mean value
- std(): Standard deviation

### **The data were averaged based on subject and activity group.**

Subject column is numbered sequentially from 1 to 30. Activity column has 6 types as listed below.

1. WALKING
2. WALKING\_UPSTAIRS
3. WALKING\_DOWNSTAIRS
4. SITTING
5. STANDING
6. LAYING

### **The tidy data contains 6 rows (averaged based on activity) and 68 columns (66 variables, 1 activity and 1 subject labels).**

1. "activitylabel"
2. "subject"
3. "tBodyAcc-mean()-X"
4. "tBodyAcc-mean()-Y"
5. "tBodyAcc-mean()-Z"
6. "tBodyAcc-std()-X"
7. "tBodyAcc-std()-Y"
8. "tBodyAcc-std()-Z"
9. "tGravityAcc-mean()-X"

10. "tGravityAcc-mean()-Y"
11. "tGravityAcc-mean()-Z"
12. "tGravityAcc-std()-X"
13. "tGravityAcc-std()-Y"
14. "tGravityAcc-std()-Z"
15. "tBodyAccJerk-mean()-X"
16. "tBodyAccJerk-mean()-Y"
17. "tBodyAccJerk-mean()-Z"
18. "tBodyAccJerk-std()-X"
19. "tBodyAccJerk-std()-Y"
20. "tBodyAccJerk-std()-Z"
21. "tBodyGyro-mean()-X"
22. "tBodyGyro-mean()-Y"
23. "tBodyGyro-mean()-Z"
24. "tBodyGyro-std()-X"
25. "tBodyGyro-std()-Y"
26. "tBodyGyro-std()-Z"
27. "tBodyGyroJerk-mean()-X"
28. "tBodyGyroJerk-mean()-Y"
29. "tBodyGyroJerk-mean()-Z"
30. "tBodyGyroJerk-std()-X"
31. "tBodyGyroJerk-std()-Y"
32. "tBodyGyroJerk-std()-Z"
33. "tBodyAccMag-mean()"
34. "tBodyAccMag-std()"
35. "tGravityAccMag-mean()"
36. "tGravityAccMag-std()"
37. "tBodyAccJerkMag-mean()"
38. "tBodyAccJerkMag-std()"
39. "tBodyGyroMag-mean()"
40. "tBodyGyroMag-std()"
41. "tBodyGyroJerkMag-mean()"
42. "tBodyGyroJerkMag-std()"
43. "fBodyAcc-mean()-X"

44. "fBodyAcc-mean()-Y"
45. "fBodyAcc-mean()-Z"
46. "fBodyAcc-std()-X"
47. "fBodyAcc-std()-Y"
48. "fBodyAcc-std()-Z"
49. "fBodyAccJerk-mean()-X"
50. "fBodyAccJerk-mean()-Y"
51. "fBodyAccJerk-mean()-Z"
52. "fBodyAccJerk-std()-X"
53. "fBodyAccJerk-std()-Y"
54. "fBodyAccJerk-std()-Z"
55. "fBodyGyro-mean()-X"
56. "fBodyGyro-mean()-Y"
57. "fBodyGyro-mean()-Z"
58. "fBodyGyro-std()-X"
59. "fBodyGyro-std()-Y"
60. "fBodyGyro-std()-Z"
61. "fBodyAccMag-mean()"
62. "fBodyAccMag-std()"
63. "fBodyBodyAccJerkMag-mean()"
64. "fBodyBodyAccJerkMag-std()"
65. "fBodyBodyGyroMag-mean()"
66. "fBodyBodyGyroMag-std()"
67. "fBodyBodyGyroJerkMag-mean()"
68. "fBodyBodyGyroJerkMag-std()"

## **variable units**

Activity variable is factor type. Subject variable is integer type. All the other variables are numeric type.