Code Book for Samsung wearable Data Tidy Set

The experiments have been carried out with a group of 30 volunteers within an age bracket of 19-48 years. Each person performed six activities (WALKING, WALKING\_UPSTAIRS, WALKING\_DOWNSTAIRS, SITTING, STANDING, LAYING) wearing a smartphone (Samsung Galaxy S II) on the waist. Using its embedded accelerometer and gyroscope, we captured 3-axial linear acceleration and 3-axial angular velocity at a constant rate of 50Hz. The experiments have been video-recorded to label the data manually.

1. **Subject**

Thirty subjects involved in the study. Integer values from 1 to 30

1. **ActivityCode**

Activity is one of “Walking”, “Walking-Upstairs”, “Walking-Downstairs”, “Standing”, “Sitting” or “Laying”

The data below are extracted from the original data, averaged over respective categories

Fields beginning with ‘t’ are time variables, in the units of seconds. Fields beginning with ‘f’ are frequency variables, in the units of Hz.

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. fBodyAcc.meanFreq...X

50. fBodyAcc.meanFreq...Y

51. fBodyAcc.meanFreq...Z

52. fBodyAccJerk.mean...X

53. fBodyAccJerk.mean...Y

54. fBodyAccJerk.mean...Z

55. fBodyAccJerk.std...X

56. fBodyAccJerk.std...Y

57. fBodyAccJerk.std...Z

58. fBodyAccJerk.meanFreq...X

59. fBodyAccJerk.meanFreq...Y

60. fBodyAccJerk.meanFreq...Z

61. fBodyGyro.mean...X

62. fBodyGyro.mean...Y

63. fBodyGyro.mean...Z

64. fBodyGyro.std...X

65. fBodyGyro.std...Y

66. fBodyGyro.std...Z

67. fBodyGyro.meanFreq...X

68. fBodyGyro.meanFreq...Y

69. fBodyGyro.meanFreq...Z

70. fBodyAccMag.mean..

71. fBodyAccMag.std..

72. fBodyAccMag.meanFreq..

73. fBodyBodyAccJerkMag.mean..

74. fBodyBodyAccJerkMag.std..

75. fBodyBodyAccJerkMag.meanFreq..

76. fBodyBodyGyroMag.mean..

77. fBodyBodyGyroMag.std..

78. fBodyBodyGyroMag.meanFreq..

79. fBodyBodyGyroJerkMag.mean..

80. fBodyBodyGyroJerkMag.std..

81. fBodyBodyGyroJerkMag.meanFreq..

82. angle.tBodyAccMean.gravity.

83. angle.tBodyAccJerkMean..gravityMean.

84. angle.tBodyGyroMean.gravityMean.

85. angle.tBodyGyroJerkMean.gravityMean.

86. angle.X.gravityMean.

87. angle.Y.gravityMean.

88. angle.Z.gravityMean.