Following variables has been renamed to give meaningful name using 'gsub' and regular expression. Total 561 variables in below major type exist. Refer to the feature.txt (original source file) or the generated assignment part5 file for the list of total variables.

Variable Names in original source file	Meaning variable name given (renamed)
Acc	Accelerometer
Jerk	Jerk Signal
Gyro	Gyroscope
Mag	Magnitude
T	Time (dimension)
F	Frequency (dimension)
Freq	Frequency (dimension)

'-XYZ' is used to denote 3-axial signals in the X, Y and Z directions

# of Subject used for the experiment is 30. Subject Type is integer, range [1-30]

# of types of activities (factor type) used for the experiment is given below

Activity Num	Activity name/factor
1	WALKING
2	WALKING_UPSTAIRS
3	WALKING_DOWNSTAIRS
4	SITTING
5	STANDING
6	LAYING

Temporary variables created sequentially in the R code	Structure	
merged_data_subject	10299 obs of 1 variable	Data frame
merged_data_activity	10299 obs of 1 variable	Data frame
single_table	10299 obs. of 561 variables	Data frame
merged_data_Subject_Activity	10299 obs. of 2 variables	Data frame
single_table	10299 obs. of 563 variables	Data frame
data_mean_std	10299 obs. of 81 variables	Data frame
single_table	10299 obs. of 81 variables	Data

		frame
tidyData_ddply	180 obs. of 81 variables	Data frame

 Mean has been calculated for each subject for each type of activities (total 30*6=180 cases) from the signal measurement consolidated single dataset. Each row shows a vector of variable averages for a particular subject for particular activity.