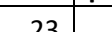
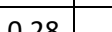
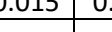
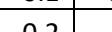
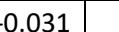
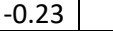
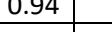
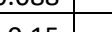
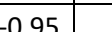
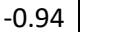
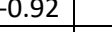
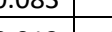
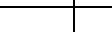
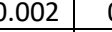
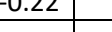
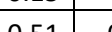
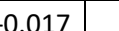
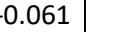
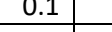
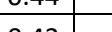
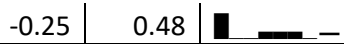
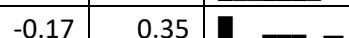
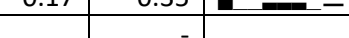
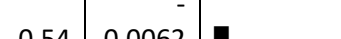
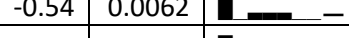
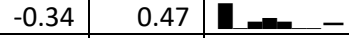
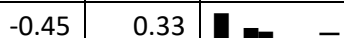
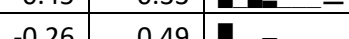
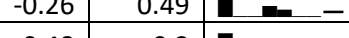
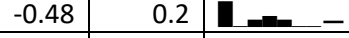
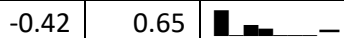
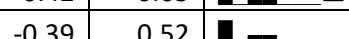
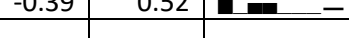
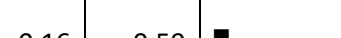
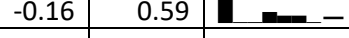
TRANSFORMATIONS:

1. Dataset was initially split into subject, activity, and features. Each of these were further split into test and train sets. Merging was performed to get everything in one dataset.
2. The mean and standard deviation values for each measurement was extracted by using pattern matching functions on variable names.
3. Dataset activity variable was factorized with the activity lookup table to obtain a descriptive name for each activity.
4. An average was added for every feature by grouping the data set by subject and activity.
5. The new dataset is then written to tidyData.txt file

name	data_type	missing	complete	mean	sd	p0	p25	p50	p75	p100	hist
"subject"	integer	0	180	15.5	8.68	1	8	15.5	23	30	
"activity"	character	0	180								
"timeBodyAccelerometer-mean()-X"	numeric	0	180	0.27	0.012	0.22	0.27	0.28	0.28	0.3	
"timeBodyAccelerometer-mean()-Y"	numeric	0	180	-0.018	0.0058	-0.041	-0.02	-0.017	-0.015	-0.0013	
"timeBodyAccelerometer-mean()-Z"	numeric	0	180	-0.11	0.0096	-0.15	-0.11	-0.11	-0.1	-0.075	
"timeBodyAccelerometer-std()-X"	numeric	0	180	-0.56	0.45	-1	-0.98	-0.75	-0.2	0.63	
"timeBodyAccelerometer-std()-Y"	numeric	0	180	-0.46	0.5	-0.99	-0.94	-0.51	-0.031	0.62	
"timeBodyAccelerometer-std()-Z"	numeric	0	180	-0.58	0.4	-0.99	-0.95	-0.65	-0.23	0.61	
"timeGravityAccelerometer-mean()-X"	numeric	0	180	0.7	0.49	-0.68	0.84	0.92	0.94	0.97	
"timeGravityAccelerometer-mean()-Y"	numeric	0	180	-0.016	0.35	-0.48	-0.23	-0.13	0.088	0.96	
"timeGravityAccelerometer-mean()-Z"	numeric	0	180	0.074	0.29	-0.5	-0.12	0.024	0.15	0.96	
"timeGravityAccelerometer-std()-X"	numeric	0	180	-0.96	0.025	-1	-0.98	-0.97	-0.95	-0.83	
"timeGravityAccelerometer-std()-Y"	numeric	0	180	-0.95	0.033	-0.99	-0.97	-0.96	-0.94	-0.64	
"timeGravityAccelerometer-std()-Z"	numeric	0	180	-0.94	0.04	-0.99	-0.96	-0.95	-0.92	-0.61	
"timeBodyAccelerometerJerk-mean()-X"	numeric	0	180	0.079	0.013	0.043	0.074	0.076	0.083	0.13	
"timeBodyAccelerometerJerk-mean()-Y"	numeric	0	180	0.0076	0.014	-0.039	0.00047	0.0095	0.013	0.057	
"timeBodyAccelerometerJerk-mean()-Z"	numeric	0	180	-0.005	0.013	-0.067	-0.011	-0.0039	0.002	0.038	
"timeBodyAccelerometerJerk-std()-X"	numeric	0	180	-0.59	0.42	-0.99	-0.98	-0.81	-0.22	0.54	
"timeBodyAccelerometerJerk-std()-Y"	numeric	0	180	-0.57	0.43	-0.99	-0.97	-0.78	-0.15	0.36	
"timeBodyAccelerometerJerk-std()-Z"	numeric	0	180	-0.74	0.28	-0.99	-0.98	-0.88	-0.51	0.031	
"timeBodyGyroscope-mean()-X"	numeric	0	180	-0.032	0.054	-0.21	-0.047	-0.029	-0.017	0.19	
"timeBodyGyroscope-mean()-Y"	numeric	0	180	-0.074	0.036	-0.2	-0.09	-0.073	-0.061	0.027	
"timeBodyGyroscope-mean()-Z"	numeric	0	180	0.087	0.036	-0.072	0.075	0.085	0.1	0.18	
"timeBodyGyroscope-std()-X"]	numeric	0	180	-0.69	0.29	-0.99	-0.97	-0.79	-0.44	0.27	
"timeBodyGyroscope-std()-Y"	numeric	0	180	-0.65	0.35	-0.99	-0.96	-0.8	-0.42	0.48	

"timeBodyGyroscope-std()-Z"	numeric	0	180	-0.62	0.37	-0.99	-0.96	-0.8	-0.31	0.56	
"timeBodyGyroscopeJerk-mean()-X"	numeric	0	180	-0.096	0.023	-0.16	-0.1	-0.099	-0.091	-0.022	
"timeBodyGyroscopeJerk-mean()-Y"	numeric	0	180	-0.043	0.0095	-0.077	-0.046	-0.041	-0.038	-0.013	
"timeBodyGyroscopeJerk-mean()-Z"	numeric	0	180	-0.055	0.012	-0.092	-0.062	-0.053	-0.049	-0.0069	
"timeBodyGyroscopeJerk-std()-X"	numeric	0	180	-0.7	0.3	-1	-0.98	-0.84	-0.46	0.18	
"timeBodyGyroscopeJerk-std()-Y"	numeric	0	180	-0.76	0.27	-1	-0.98	-0.89	-0.59	0.3	
"timeBodyGyroscopeJerk-std()-Z"	numeric	0	180	-0.71	0.3	-1	-0.98	-0.86	-0.47	0.19	
"timeBodyAccelerometerMagnitude-mean()"	numeric	0	180	-0.5	0.47	-0.99	-0.96	-0.48	-0.092	0.64	
"timeBodyAccelerometerMagnitude-std()"	numeric	0	180	-0.54	0.43	-0.99	-0.94	-0.61	-0.21	0.43	
"timeGravityAccelerometerMagnitude-mean()"	numeric	0	180	-0.5	0.47	-0.99	-0.96	-0.48	-0.092	0.64	
"timeGravityAccelerometerMagnitude-std()"	numeric	0	180	-0.54	0.43	-0.99	-0.94	-0.61	-0.21	0.43	
"timeBodyAccelerometerJerkMagnitude-mean()"	numeric	0	180	-0.61	0.4	-0.99	-0.98	-0.82	-0.25	0.43	
"timeBodyAccelerometerJerkMagnitude-std()"	numeric	0	180	-0.58	0.42	-0.99	-0.98	-0.8	-0.22	0.45	
"timeBodyGyroscopeMagnitude-mean()"	numeric	0	180	-0.57	0.4	-0.98	-0.95	-0.66	-0.22	0.42	
"timeBodyGyroscopeMagnitude-std()"	numeric	0	180	-0.63	0.34	-0.98	-0.95	-0.74	-0.36	0.3	
"timeBodyGyroscopeJerkMagnitude-mean()"	numeric	0	180	-0.74	0.28	-1	-0.99	-0.86	-0.51	0.088	
"timeBodyGyroscopeJerkMagnitude-std()"	numeric	0	180	-0.76	0.27	-1	-0.98	-0.88	-0.58	0.25	
"frequencyBodyAccelerometer-mean()-X"	numeric	0	180	-0.58	0.43	-1	-0.98	-0.77	-0.22	0.54	
"frequencyBodyAccelerometer-mean()-Y"	numeric	0	180	-0.49	0.48	-0.99	-0.95	-0.59	-0.063	0.52	
"frequencyBodyAccelerometer-mean()-Z"	numeric	0	180	-0.63	0.36	-0.99	-0.96	-0.72	-0.32	0.28	
"frequencyBodyAccelerometer-std()-X"	numeric	0	180	-0.55	0.46	-1	-0.98	-0.75	-0.2	0.66	
"frequencyBodyAccelerometer-std()-Y"	numeric	0	180	-0.48	0.47	-0.99	-0.94	-0.51	-0.079	0.56	
"frequencyBodyAccelerometer-std()-Z"	numeric	0	180	-0.58	0.39	-0.99	-0.95	-0.64	-0.27	0.69	
"frequencyBodyAccelerometerJerk-mean()-X"	numeric	0	180	-0.61	0.4	-0.99	-0.98	-0.81	-0.28	0.47	
"frequencyBodyAccelerometerJerk-mean()-Y"	numeric	0	180	-0.59	0.41	-0.99	-0.97	-0.78	-0.2	0.28	
"frequencyBodyAccelerometerJerk-mean()-Z"	numeric	0	180	-0.71	0.3	-0.99	-0.98	-0.87	-0.47	0.16	

"frequencyBodyAccelerometerJerk-std()-X"	numeric	0	180	-0.61	0.4	-1	-0.98	-0.83	-0.25	0.48	
"frequencyBodyAccelerometerJerk-std()-Y"	numeric	0	180	-0.57	0.43	-0.99	-0.97	-0.79	-0.17	0.35	
"frequencyBodyAccelerometerJerk-std()-Z"	numeric	0	180	-0.76	0.26	-0.99	-0.98	-0.9	-0.54	-0.0062	
"frequencyBodyGyroscope-mean()-X"	numeric	0	180	-0.64	0.35	-0.99	-0.97	-0.73	-0.34	0.47	
"frequencyBodyGyroscope-mean()-Y"	numeric	0	180	-0.68	0.33	-0.99	-0.97	-0.81	-0.45	0.33	
"frequencyBodyGyroscope-mean()-Z"	numeric	0	180	-0.6	0.38	-0.99	-0.96	-0.79	-0.26	0.49	
"frequencyBodyGyroscope-std()-X"	numeric	0	180	-0.71	0.27	-0.99	-0.98	-0.81	-0.48	0.2	
"frequencyBodyGyroscope-std()-Y"	numeric	0	180	-0.65	0.36	-0.99	-0.96	-0.8	-0.42	0.65	
"frequencyBodyGyroscope-std()-Z"	numeric	0	180	-0.66	0.34	-0.99	-0.96	-0.82	-0.39	0.52	
"frequencyBodyAccelerometerMagnitude-mean()"	numeric	0	180	-0.54	0.45	-0.99	-0.96	-0.67	-0.16	0.59	
"frequencyBodyAccelerometerMagnitude-std()"	numeric	0	180	-0.62	0.35	-0.99	-0.95	-0.65	-0.37	0.18	
"frequencyBodyAccelerometerJerkMagnitude-mean()"	numeric	0	180	-0.58	0.43	-0.99	-0.98	-0.79	-0.19	0.54	
"frequencyBodyAccelerometerJerkMagnitude-std()"	numeric	0	180	-0.6	0.41	-0.99	-0.98	-0.81	-0.27	0.32	
"frequencyBodyGyroscopeMagnitude-mean()"	numeric	0	180	-0.67	0.32	-0.99	-0.96	-0.77	-0.41	0.2	
"frequencyBodyGyroscopeMagnitude-std()"	numeric	0	180	-0.67	0.29	-0.98	-0.95	-0.77	-0.43	0.24	
"frequencyBodyGyroscopeJerkMagnitude-mean()"	numeric	0	180	-0.76	0.26	-1	-0.98	-0.88	-0.58	0.15	
"frequencyBodyGyroscopeJerkMagnitude-std()"	numeric	0	180	-0.77	0.25	-1	-0.98	-0.89	-0.61	0.29