The CONTENTS Procedure

Data Set Name	WORK.FITNESS	**Observations**	31
Member Type	DATA	**Variables**	8
Engine	V9	**Indexes**	0
Created	03/21/2021 23:14:07	**Observation Length**	64
Last Modified	03/21/2021 23:14:07	**Deleted Observations**	0
Protection		**Compressed**	NO
Data Set Type		**Sorted**	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

We have 31 obs
8 variables

Engine/Host Dependent Information	
Data Set Page Size	131072
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	2043
Obs in First Data Page	31
Number of Data Set Repairs	0
Filename	/saswork/SAS_work4B5400009715_odaws01-usw2.oda.sas.com/SAS_work4AB800009715_odaws01-usw2.oda.sas.com/fitness.sas7bdat
Release Created	9.0401M6
Host Created	Linux
Inode Number	1241400
Access Permission	rw-r--r--
Owner Name	u54770142
File Size	256KB
File Size (bytes)	262144

Variables in Creation Order			
#	**Variable**	**Type**	**Len**
1	age	Num	8
2	weight	Num	8
3	oxy	Num	8
4	runtime	Num	8
5	rstpulse	Num	8
6	runpulse	Num	8
7	maxpulse	Num	8
8	case	Num	8

All variables are numeric with lenght 8

Listing Fitness data set observations

case	age	weight	oxy	runtime	rstpulse	runpulse	maxpulse
1	44	89.47	44.609	11.37	62	178	182
2	40	75.07	45.313	10.07	62	185	185
3	44	85.84	54.297	8.65	45	156	168
4	42	68.15	59.571	8.17	40	166	172
5	38	89.02	49.874	9.22	55	178	180
6	47	77.45	44.811	11.63	58	176	176
7	40	75.98	45.681	11.95	70	176	180
8	43	81.19	49.091	10.85	64	162	170
9	44	81.42	39.442	13.08	63	174	176

Weigh, oxy, runtime are have continuos values. And Age, rstpulse, runpulse, maxpulse will be considered in the same way as in reality human beings pulse has continuous values (not integers - those values are discretiziced for use most of times)

case	age	weight	oxy	runtime	rstpulse	runpulse	maxpulse
10	38	81.87	60.055	8.63	48	170	186
11	44	73.03	50.541	10.13	45	168	168
12	45	87.66	37.388	14.03	56	186	192
13	45	66.45	44.754	11.12	51	176	176
14	47	79.15	47.273	10.60	47	162	164
15	54	83.12	51.855	10.33	50	166	170
16	49	81.42	49.156	8.95	44	180	185
17	51	69.63	40.836	10.95	57	168	172
18	51	77.91	46.672	10.00	48	162	168
19	48	91.63	46.774	10.25	48	162	164
20	49	73.37	50.388	10.08	67	168	168
21	57	73.37	39.407	12.63	58	174	176
22	54	79.38	46.080	11.17	62	156	165
23	52	76.32	45.441	9.63	48	164	166
24	50	70.87	54.625	8.92	48	146	155
25	51	67.25	45.118	11.08	48	172	172
26	54	91.63	39.203	12.88	44	168	172
27	51	73.71	45.790	10.47	59	186	188
28	57	59.08	50.545	9.93	49	148	155
29	49	76.32	48.673	9.40	56	186	188
30	48	61.24	47.920	11.50	52	170	176
31	52	82.78	47.467	10.50	53	170	172

Generating a Pearson correlation matrix

The CORR Procedure

7 Variables:	age weight oxy runtime rstpulse runpulse maxpulse

Pearson Correlation Coefficients, N = 31
Prob > |r| under H0: Rho=0

	age	weight	oxy	runtime	rstpulse	runpulse	maxpulse
age	1.00000	-0.23354 0.2061	-0.30459 0.0957	0.18875 0.3092	-0.16410 0.3777	-0.33787 0.0630	-0.43292 0.0150
weight	-0.23354 0.2061	1.00000	-0.16275 0.3817	0.14351 0.4412	0.04397 0.8143	0.18152 0.3284	0.24938 0.1761
oxy	-0.30459 0.0957	-0.16275 0.3817	1.00000	-0.86219 <.0001	-0.39936 0.0260	-0.39797 0.0266	-0.23674 0.1997
runtime	0.18875 0.3092	0.14351 0.4412	-0.86219 <.0001	1.00000	0.45038 0.0110	0.31365 0.0858	0.22610 0.2213
rstpulse	-0.16410 0.3777	0.04397 0.8143	-0.39936 0.0260	0.45038 0.0110	1.00000	0.35246 0.0518	0.30512 0.0951
runpulse	-0.33787 0.0630	0.18152 0.3284	-0.39797 0.0266	0.31365 0.0858	0.35246 0.0518	1.00000	0.92975 <.0001
maxpulse	-0.43292 0.0150	0.24938 0.1761	-0.23674 0.1997	0.22610 0.2213	0.30512 0.0951	0.92975 <.0001	1.00000

The var, Age is only associated w/Maxpulse p<5% w weak r=-0.43

Var Weight is not associated w any other var

Var Oxy is associated w/ runtime, rstpulse, runpulse (p<5%)..R is negative, R is strong w Runtime at 0.86 and weak for the other two at 0.40 for both

VAr Runtime is associated w/ rstpulse p,5%. R is positive and weak at 0.45

Var Runpulse is associated w/Maxpulse (p<5%).R is positive and strong at 0.93

The following scatter plots also verify the associated listed above
The catterplots shows us linearity for all and also the strenght of the relationship (dispersion)

Generating a Scatterplot Matrix with Histogram for all variables