

## *Descriptor Portion of Game*

### *The CONTENTS Procedure*

<b>Data Set Name</b>	WORK.PROJECT_GAME	<b>Observations</b>	18625
<b>Member Type</b>	DATA	<b>Variables</b>	7
<b>Engine</b>	V9	<b>Indexes</b>	0
<b>Created</b>	12/14/2016 16:46:02	<b>Observation Length</b>	104
<b>Last Modified</b>	12/14/2016 16:46:02	<b>Deleted Observations</b>	0
<b>Protection</b>		<b>Compressed</b>	NO
<b>Data Set Type</b>		<b>Sorted</b>	NO
<b>Label</b>			
<b>Data Representation</b>	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
<b>Encoding</b>	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
<b>Data Set Page Size</b>	131072
<b>Number of Data Set Pages</b>	15
<b>First Data Page</b>	1
<b>Max Obs per Page</b>	1258
<b>Obs in First Data Page</b>	1232
<b>Number of Data Set Repairs</b>	0
<b>Filename</b>	/saswork/SAS_work6B0E00007661_odaws02-prod-us/SAS_work4E0D00007661_odaws02-prod-us/project_game.sas7bdat
<b>Release Created</b>	9.0401M3
<b>Host Created</b>	Linux
<b>Inode Number</b>	14417961
<b>Access Permission</b>	rw-r--r--
<b>Owner Name</b>	zgao220
<b>File Size</b>	2MB
<b>File Size (bytes)</b>	2097152

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
1	,	Num	8	BEST12.	BEST32.
6	editors_choice	Char	1	\$1.	\$1.
5	genre	Char	19	\$19.	\$19.

*Descriptor Portion of Game*

*The CONTENTS Procedure*

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
7	release_year	Num	8	BEST12.	BEST32.
4	score	Num	8	BEST12.	BEST32.
2	score_phrase	Char	8	\$8.	\$8.
3	title	Char	52	\$52.	\$52.

*Descriptor Portion of videogame sales*

*The CONTENTS Procedure*

<b>Data Set Name</b>	WORK.PROJECT_VSALES	<b>Observations</b>	16598
<b>Member Type</b>	DATA	<b>Variables</b>	6
<b>Engine</b>	V9	<b>Indexes</b>	0
<b>Created</b>	12/14/2016 16:46:02	<b>Observation Length</b>	80
<b>Last Modified</b>	12/14/2016 16:46:02	<b>Deleted Observations</b>	0
<b>Protection</b>		<b>Compressed</b>	NO
<b>Data Set Type</b>		<b>Sorted</b>	NO
<b>Label</b>			
<b>Data Representation</b>	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
<b>Encoding</b>	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
<b>Data Set Page Size</b>	131072
<b>Number of Data Set Pages</b>	11
<b>First Data Page</b>	1
<b>Max Obs per Page</b>	1635
<b>Obs in First Data Page</b>	1603
<b>Number of Data Set Repairs</b>	0
<b>Filename</b>	/saswork/SAS_work6B0E00007661_odaws02-prod-us/SAS_work4E0D00007661_odaws02-prod-us/project_vsales.sas7bdat
<b>Release Created</b>	9.0401M3
<b>Host Created</b>	Linux
<b>Inode Number</b>	14417960
<b>Access Permission</b>	rw-r--r--
<b>Owner Name</b>	zgao220
<b>File Size</b>	2MB
<b>File Size (bytes)</b>	1572864

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
4	EU_Sales	Num	8	BEST12.	BEST32.
2	Genre	Char	12	\$12.	\$12.
6	Global_Sales	Num	8	BEST12.	BEST32.

*Descriptor Portion of videogame sales*

*The CONTENTS Procedure*

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
5	JP_Sales	Num	8	BEST12.	BEST32.
3	NA_Sales	Num	8	BEST12.	BEST32.
1	Name	Char	29	\$29.	\$29.

*Descriptor Portion of movie*

*The CONTENTS Procedure*

<b>Data Set Name</b>	WORK.PROJECT_MOVIE	<b>Observations</b>	5043
<b>Member Type</b>	DATA	<b>Variables</b>	12
<b>Engine</b>	V9	<b>Indexes</b>	0
<b>Created</b>	12/14/2016 16:46:02	<b>Observation Length</b>	184
<b>Last Modified</b>	12/14/2016 16:46:02	<b>Deleted Observations</b>	0
<b>Protection</b>		<b>Compressed</b>	NO
<b>Data Set Type</b>		<b>Sorted</b>	NO
<b>Label</b>			
<b>Data Representation</b>	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
<b>Encoding</b>	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information	
<b>Data Set Page Size</b>	131072
<b>Number of Data Set Pages</b>	8
<b>First Data Page</b>	1
<b>Max Obs per Page</b>	711
<b>Obs in First Data Page</b>	692
<b>Number of Data Set Repairs</b>	0
<b>Filename</b>	/saswork/SAS_work6B0E00007661_odaws02-prod-us/SAS_work4E0D00007661_odaws02-prod-us/project_movie.sas7bdat
<b>Release Created</b>	9.0401M3
<b>Host Created</b>	Linux
<b>Inode Number</b>	14417941
<b>Access Permission</b>	rw-r--r--
<b>Owner Name</b>	zgao220
<b>File Size</b>	1MB
<b>File Size (bytes)</b>	1179648

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
4	actor_1_facebook_likes	Num	8	BEST12.	BEST32.
10	actor_2_facebook_likes	Num	8	BEST12.	BEST32.
3	actor_3_facebook_likes	Num	8	BEST12.	BEST32.

*Descriptor Portion of movie*

*The CONTENTS Procedure*

Alphabetic List of Variables and Attributes					
#	Variable	Type	Len	Format	Informat
7	cast_total_facebook_likes	Num	8	BEST12.	BEST32.
8	country	Char	3	\$3.	\$3.
2	director_facebook_likes	Num	8	BEST12.	BEST32.
5	genres	Char	57	\$57.	\$57.
11	imdb_score	Num	8	BEST12.	BEST32.
12	movie_facebook_likes	Num	8	BEST12.	BEST32.
6	movie_title	Char	45	\$45.	\$45.
1	num_critic_for_reviews	Num	8	BEST12.	BEST32.
9	title_year	Num	8	BEST12.	BEST32.

*Table for frequency of genre for game*

*The FREQ Procedure*

genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Action	3797	20.43	3797	20.43
Action, Adventure	765	4.12	4562	24.54
Action, Compilation	89	0.48	4651	25.02
Action, Editor	1	0.01	4652	25.03
Action, Platformer	3	0.02	4655	25.04
Action, Puzzle	1	0.01	4656	25.05
Action, RPG	330	1.78	4986	26.82
Action, Simulation	32	0.17	5018	26.99
Action, Strategy	1	0.01	5019	27.00
Adult, Card	2	0.01	5021	27.01
Adventure	1175	6.32	6196	33.33
Adventure, Adult	1	0.01	6197	33.34
Adventure, Adventur	5	0.03	6202	33.36
Adventure, Compilat	11	0.06	6213	33.42
Adventure, Episodic	4	0.02	6217	33.44
Adventure, Platform	1	0.01	6218	33.45
Adventure, RPG	3	0.02	6221	33.47
Baseball	1	0.01	6222	33.47
Battle	32	0.17	6254	33.64
Board	116	0.62	6370	34.27
Board, Compilation	7	0.04	6377	34.31
Card	108	0.58	6485	34.89
Card, Battle	54	0.29	6539	35.18
Card, Compilation	3	0.02	6542	35.19
Card, RPG	9	0.05	6551	35.24
Casino	31	0.17	6582	35.41
Compilation	54	0.29	6636	35.70
Compilation, Compil	1	0.01	6637	35.70
Compilation, RPG	2	0.01	6639	35.71
Educational	20	0.11	6659	35.82
Educational, Action	11	0.06	6670	35.88
Educational, Advent	3	0.02	6673	35.90
Educational, Card	1	0.01	6674	35.90

*Table for frequency of genre for game**The FREQ Procedure*

genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<b>Educational, Produc</b>	5	0.03	6679	35.93
<b>Educational, Puzzle</b>	25	0.13	6704	36.06
<b>Educational, Simula</b>	2	0.01	6706	36.08
<b>Educational, Trivia</b>	2	0.01	6708	36.09
<b>Fighting</b>	547	2.94	7255	39.03
<b>Fighting, Action</b>	77	0.41	7332	39.44
<b>Fighting, Adventure</b>	5	0.03	7337	39.47
<b>Fighting, Compilati</b>	13	0.07	7350	39.54
<b>Fighting, RPG</b>	2	0.01	7352	39.55
<b>Fighting, Simulatio</b>	3	0.02	7355	39.57
<b>Flight</b>	24	0.13	7379	39.70
<b>Flight, Action</b>	125	0.67	7504	40.37
<b>Flight, Racing</b>	3	0.02	7507	40.38
<b>Flight, Simulation</b>	37	0.20	7544	40.58
<b>Hardware</b>	2	0.01	7546	40.59
<b>Hunting</b>	112	0.60	7658	41.20
<b>Hunting, Action</b>	2	0.01	7660	41.21
<b>Hunting, Simulation</b>	1	0.01	7661	41.21
<b>Music</b>	371	2.00	8032	43.21
<b>Music, Action</b>	39	0.21	8071	43.42
<b>Music, Adventure</b>	1	0.01	8072	43.42
<b>Music, Compilation</b>	4	0.02	8076	43.45
<b>Music, Editor</b>	6	0.03	8082	43.48
<b>Music, RPG</b>	1	0.01	8083	43.48
<b>Other</b>	20	0.11	8103	43.59
<b>Other, Action</b>	1	0.01	8104	43.60
<b>Other, Adventure</b>	1	0.01	8105	43.60
<b>Party</b>	141	0.76	8246	44.36
<b>Pinball</b>	77	0.41	8323	44.77
<b>Pinball, Compilatio</b>	1	0.01	8324	44.78
<b>Platformer</b>	823	4.43	9147	49.21
<b>Platformer, Action</b>	11	0.06	9158	49.27
<b>Platformer, Adventu</b>	8	0.04	9166	49.31



*Table for frequency of genre for game**The FREQ Procedure*

genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<b>Productivity</b>	39	0.21	9205	49.52
<b>Productivity, Actio</b>	2	0.01	9207	49.53
<b>Puzzle</b>	776	4.17	9983	53.70
<b>Puzzle, Action</b>	200	1.08	10183	54.78
<b>Puzzle, Adventure</b>	47	0.25	10230	55.03
<b>Puzzle, Compilation</b>	9	0.05	10239	55.08
<b>Puzzle, Platformer</b>	1	0.01	10240	55.09
<b>Puzzle, RPG</b>	1	0.01	10241	55.09
<b>Puzzle, Word Game</b>	6	0.03	10247	55.12
<b>RPG</b>	980	5.27	11227	60.40
<b>RPG, Action</b>	1	0.01	11228	60.40
<b>RPG, Compilation</b>	4	0.02	11232	60.42
<b>RPG, Editor</b>	2	0.01	11234	60.43
<b>RPG, Simulation</b>	8	0.04	11242	60.48
<b>Racing</b>	1228	6.61	12470	67.08
<b>Racing, Action</b>	210	1.13	12680	68.21
<b>Racing, Compilation</b>	2	0.01	12682	68.22
<b>Racing, Editor</b>	3	0.02	12685	68.24
<b>Racing, Shooter</b>	2	0.01	12687	68.25
<b>Racing, Simulation</b>	25	0.13	12712	68.38
<b>Shooter</b>	1610	8.66	14322	77.05
<b>Shooter, Adventure</b>	1	0.01	14323	77.05
<b>Shooter, First-Pers</b>	4	0.02	14327	77.07
<b>Shooter, Platformer</b>	3	0.02	14330	77.09
<b>Shooter, RPG</b>	22	0.12	14352	77.21
<b>Simulation</b>	567	3.05	14919	80.26
<b>Simulation, Adventu</b>	1	0.01	14920	80.26
<b>Sports</b>	1916	10.31	16836	90.57
<b>Sports, Action</b>	196	1.05	17032	91.62
<b>Sports, Baseball</b>	3	0.02	17035	91.64
<b>Sports, Compilation</b>	14	0.08	17049	91.72
<b>Sports, Editor</b>	1	0.01	17050	91.72
<b>Sports, Fighting</b>	1	0.01	17051	91.73

*Table for frequency of genre for game**The FREQ Procedure*

genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Sports, Golf	1	0.01	17052	91.73
Sports, Other	1	0.01	17053	91.74
Sports, Party	1	0.01	17054	91.74
Sports, Racing	5	0.03	17059	91.77
Sports, Simulation	44	0.24	17103	92.01
Strategy	1071	5.76	18174	97.77
Strategy, Compilati	1	0.01	18175	97.77
Strategy, RPG	77	0.41	18252	98.19
Strategy, Simulatio	1	0.01	18253	98.19
Trivia	119	0.64	18372	98.83
Virtual Pet	82	0.44	18454	99.27
Wrestling	134	0.72	18588	99.99
Wrestling, Simulati	1	0.01	18589	100.00
Frequency Missing = 36				

The FREQ procedure shows that there are 36 missing values for variable genre in dataset project\_game.

*Univariate table for game*

*The UNIVARIATE Procedure*

*Variable: score*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0.5	5243	10	18434
0.7	891	10	18435
0.8	12514	10	18512
1.0	16410	10	18624
1.0	16373	10	18625

**There is no extreme value for variable score in dataset project\_game.**

*Table for frequency of genre for videogame sales*

*The FREQ Procedure*

Genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Action	3316	19.98	3316	19.98
Adventure	1286	7.75	4602	27.73
Banpresto	2	0.01	4604	27.74
Fighting	848	5.11	5452	32.85
Misc	1739	10.48	7191	43.32
Platform	886	5.34	8077	48.66
Puzzle	582	3.51	8659	52.17
Racing	1249	7.53	9908	59.69
Role-Playing	1488	8.96	11396	68.66
Shooter	1309	7.89	12705	76.55
Simulation	867	5.22	13572	81.77
Sony Compute	1	0.01	13573	81.77
Sports	2346	14.13	15919	95.91
Strategy	679	4.09	16598	100.00

**There is no missing value for variable genre in dataset project\_vsales.**

*Univariate table for videogame sales*

*The UNIVARIATE Procedure*

*Variable: NA\_Sales*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	16597	15.85	3
0	16596	23.20	6
0	16591	26.93	10
0	16590	29.08	2
0	16588	41.49	1

**There is no extreme value for variable NA\_Sales in dataset project\_vsales.**

*Univariate table for videogame sales*

*The UNIVARIATE Procedure*

*Variable: EU\_Sales*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	16598	9.27	17
0	16596	11.00	11
0	16595	11.01	4
0	16594	12.88	3
0	16593	29.02	1

**There's no extreme value for variable EU\_Sales in dataset project\_vsales.**

*Univariate table for videogame sales*

*The UNIVARIATE Procedure*

*Variable: JP\_Sales*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0	16598	6.04	21
0	16597	6.50	7
0	16596	6.81	2
0	16595	7.20	13
0	16594	10.22	5

**There's no extreme value for variable JP\_Sales in dataset project\_vsales.**

*Univariate table for videogame sales*

*The UNIVARIATE Procedure*

*Variable: Global\_Sales*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
0.01	16598	31.37	5
0.01	16597	33.00	4
0.01	16596	35.82	3
0.01	16595	40.24	2
0.01	16594	82.74	1

**There's no extreme value for variable Global\_Sales in dataset project\_vsales.**



*Univariate Table for movie*

*The UNIVARIATE Procedure*

*Variable: imdb\_score*

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
1.6	2835	9.1	3208
1.7	1137	9.1	4410
1.9	4606	9.2	3467
1.9	2296	9.3	1938
1.9	2269	9.5	2766

**There's no extreme value for variable imdb\_score in dataset project\_movie.**

*Table for frequency of genre for game1*

*The FREQ Procedure*

genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Action	11331	62.17	11331	62.17
Adventure	1203	6.60	12534	68.77
Misc	424	2.33	12958	71.10
Puzzle	1045	5.73	14003	76.83
Role-Playing	1222	6.70	15225	83.53
Simulation	613	3.36	15838	86.90
Strategy	2388	13.10	18226	100.00

**Different genres have been categorized into 7 genres.**

*Average of Genre's Score for game1*

genre	VG_Avg
Action	6.889
Adventure	6.879
Misc	6.980
Puzzle	7.097
Role-Playing	7.266
Simulation	6.802
Strategy	7.169

We found out genre “Role-Playing” has the highest score. Genre “Strategy” is in second place and genre “Puzzle” is in third place.

*Table for frequency of genre for movie*

*The FREQ Procedure*

genres	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Action	1153	31.64	1153	31.64
Adventure	453	12.43	1606	44.07
Misc	988	27.11	2594	71.19
Puzzle	340	9.33	2934	80.52
Role-Playing	264	7.24	3198	87.76
Simulation	97	2.66	3295	90.42
Strategy	349	9.58	3644	100.00

**Different genres have been categorized into 7 genres**

*Average of Genre's Score for movie*

genre	Movie_Ave
Action	6.240
Adventure	6.525
Misc	6.753
Puzzle	5.872
Role-Playing	7.133
Simulation	7.011
Strategy	6.907

We found out genre “Role-Playing” has the highest average score. Genre “Simulation” is in second place and genre “Strategy” is in third Place.

*Table for frequency of genre for game2*

*The FREQ Procedure*

Genre	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Action	3316	33.30	3316	33.30
Adventure	1286	12.92	4602	46.22
Misc	1739	17.47	6341	63.68
Puzzle	582	5.85	6923	69.53
Role-Playing	1488	14.94	8411	84.47
Simulation	867	8.71	9278	93.18
Strategy	679	6.82	9957	100.00

**Different genres have been categorized into 7 genres**

### *Average Sales of game2*

Genre	Vg_sales_Ave
Action	0.52810
Adventure	0.18588
Misc	0.46576
Puzzle	0.42088
Role-Playing	0.62323
Simulation	0.45236
Strategy	0.25585

We found out genre “Role-Playing” has the highest average sales. Genre “Action” is in second place and genre “Misc” is in third Place.

### *Overall Analysis for Seven Genres*

Obs	genre	Movie_Ave	VG_Avg	Vg_sales_Ave
1	Role-Playing	7.133	7.266	0.62323
2	Simulation	7.011	6.802	0.45236
3	Strategy	6.907	7.169	0.25585
4	Misc	6.753	6.980	0.46576
5	Adventure	6.525	6.879	0.18588
6	Action	6.240	6.889	0.52810
7	Puzzle	5.872	7.097	0.42088

**In general, we can found out genre “Role-Playing” has the highest rank in all of our datasets.**