

FPPD Practice 25th November 2024 Results

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Task 1: Conditionally Creating Columns and Output Tables

SAS Studio interface showing the execution of SAS code for Task 1. The code creates two tables: CAMPING and LODGING, based on conditions. The output displays the resulting data for both tables.

```
1 libname pg2 "/export/viya/homes/merve.pakcan@stud.acs.upb.ro/Courses/PG2V2/data";
2
3 /* Task 1 : Conditionally Creating Columns and Output Tables */
4 /* Creating CAMPING table with CampTotal for rows where CampTotal > 0 */
5 @ data camping;
6   set pg2.pg_2017;
7   CampTotal=sum(CampingOther, CampingTent, CampingRV, CampingBackcountry); /* Calculating CampTotal */
8   if CampTotal > 0;
9   format CampTotal comma12.; /* Applying comma format */
10  keep ParkName Month DayVisits CampTotal; /* Keeping specified columns */
11 run;
12
13 /* Creating LODGING table for rows where LodgingOther > 0 */
14 @ data lodging;
15   set pg2.pg_2017;
16   where LodgingOther > 0;
17   keep ParkName Month DayVisits LodgingOther; /* Keeping specified columns */
18 run;
19
20 /* Checking the row counts */
21 proc print data=camping n;
22   title "Camping Table Row Count and Data";
23 run;
24 /* Camping table has 1374 rows */
25
26 proc print data=lodging n;
27   title "Lodging Table Row Count and Data";
28 run;
29 /* Lodging table has 383 rows */
30
```

CAMPING Table rows: 1374 Columns: 4 of 4 Rows: 1 to 200

ParkName	Month	DayVisits	CampTotal
Acadia NP	4	85,267	789
Acadia NP	5	222,978	14,438
Acadia NP	6	476,191	34,373
Acadia NP	7	743,539	52,584
Acadia NP	8	762,436	52,442
Acadia NP	9	595,388	41,417
Acadia NP	10	507,594	15,609
Armadale NGA	1	76,345	1,899
Armadale NGA	2	66,001	1,102
Armadale NGA	3	123,078	2,335
Armadale NGA	4	136,609	1,860
Armadale NGA	5	159,830	972
Armadale NGA	6	155,205	212
Armadale NGA	7	101,734	238
Armadale NGA	8	108,241	702
Armadale NGA	9	73,079	100
Armadale NGA	10	72,335	240
Armadale NGA	11	72,849	192
Armadale NGA	12	74,879	1,168
Aniakchak NM & PRES	6	20	50
Aniakchak NM & PRES	7	35	80
Aniakchak NM & PRES	8	35	80
Aniakchak NM & PRES	9	10	25
Apogee Islands NL	4	4,040	13
Apogee Islands NL	5	10,300	247
Apogee Islands NL	6	25,417	1,812
Apogee Islands NL	7	59,730	4,509
Apogee Islands NL	8	51,733	3,958
Apogee Islands NL	9	27,388	881
Apogee Islands NL	10	14,114	130
Archeu NP	1	21,549	451
Archeu NP	2	38,248	1,438
Archeu NP	3	128,508	6
Archeu NP	4	155,286	6

SAS Studio interface showing the execution of SAS code for Task 1. The code creates two tables: CAMPING and LODGING, based on conditions. The output displays the resulting data for both tables.

```
1 libname pg2 "/export/viya/homes/merve.pakcan@stud.acs.upb.ro/Courses/PG2V2/data";
2
3 /* Task 1 : Conditionally Creating Columns and Output Tables */
4 /* Creating CAMPING table with CampTotal for rows where CampTotal > 0 */
5 @ data camping;
6   set pg2.pg_2017;
7   CampTotal=sum(CampingOther, CampingTent, CampingRV, CampingBackcountry); /* Calculating CampTotal */
8   if CampTotal > 0;
9   format CampTotal comma12.; /* Applying comma format */
10  keep ParkName Month DayVisits CampTotal; /* Keeping specified columns */
11 run;
12
13 /* Creating LODGING table for rows where LodgingOther > 0 */
14 @ data lodging;
15   set pg2.pg_2017;
16   where LodgingOther > 0;
17   keep ParkName Month DayVisits LodgingOther; /* Keeping specified columns */
18 run;
19
20 /* Checking the row counts */
21 proc print data=camping n;
22   title "Camping Table Row Count and Data";
23 run;
24 /* Camping table has 1374 rows */
25
26 proc print data=lodging n;
27   title "Lodging Table Row Count and Data";
28 run;
29 /* Lodging table has 383 rows */
30
```

LODGING Table rows: 383 Columns: 4 of 4 Rows: 1 to 200

ParkName	Month	DayVisits	LodgingOther
Badlands NP	4	23,166	189
Badlands NP	5	85,967	1,135
Badlands NP	6	213,966	2,029
Badlands NP	7	263,506	2,216
Badlands NP	8	237,125	1,938
Badlands NP	9	127,598	1,370
Badlands NP	10	33,426	769
Big Bend NP	1	35,105	2,095
Big Bend NP	2	41,670	1,965
Big Bend NP	3	74,735	4,946
Big Bend NP	4	49,609	4,184
Big Bend NP	5	37,045	3,999
Big Bend NP	6	23,500	4,281
Big Bend NP	7	20,599	3,277
Big Bend NP	8	1	3,036
Big Bend NP	9	19,734	3,420
Big Bend NP	10	35,094	4,164
Big Bend NP	11	45,739	4,512
Big Bend NP	12	41,064	4,606
Big South Fork NRRRA	4	84,737	2,041
Big South Fork NRRRA	5	71,309	221
Big South Fork NRRRA	6	83,568	177
Big South Fork NRRRA	7	86,812	155
Big South Fork NRRRA	8	76,227	185
Big South Fork NRRRA	9	67,211	390
Big South Fork NRRRA	10	80,220	534
Blue Ridge PKWY	1	603,275	423
Blue Ridge PKWY	2	684,811	865
Blue Ridge PKWY	3	749,482	1,235
Blue Ridge PKWY	4	1,208,278	4,741
Blue Ridge PKWY	5	1,593,723	6,627
Blue Ridge PKWY	6	1,773,998	6,986
Blue Ridge PKWY	7	1,853,833	6,933
Blue Ridge PKWY	8	1,909,321	7,019

1373	Zion NP	11	222,069	17,968
1374	Zion NP	12	138,866	4,504
N = 1374				

382	Zion NP	11	222,069	7,191
383	Zion NP	12	138,866	5,810
N = 383				

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Task 2: Producing a Running Total

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Code

```
1 libname pg2 "/export/viya/homes/merve.pakcan@stud.acs.upb.ro/Courses/PG2V2/data";
2 /* Task 2 : Producing a Running Total */
3 data work.traffic_running_total(keep=ParkName Location Count totTraffic);
4   set pg2.np_yearlytraffic; /* Reading input dataset */
5   retain totTraffic 0; /* Starting at zero */
6   totTraffic + count; /* Updating running total */
7   format totTraffic comma12.; /* Formatting the running total with commas */
8 run;
9
10 /* Checking the results */
11 proc print data=work.traffic_running_total noobs;
12 run;
13
14 /* Output saved in WORK library due to no write access to PG2. */
```

LogResultsOutput Data (1)

ParkName	Location	Count	totTraffic
Acadia NP	TRAFFIC COUNT AT SAND BEACH	377,759	377,759
Acadia NP	TRAFFIC COUNT AT SCHOODIC	113,601	491,360
Arches NP	Total Vehicles entering Park	569,658	1,061,018
Assateague Island NS	TRAFFIC COUNT AT BAYBERRY DRIVE	368,677	1,429,695
Assateague Island NS	TRAFFIC COUNT AT FWS ENTRANCE	407,276	1,836,971
Badlands NP	TOTAL TRAFFIC COUNT AT INTERIOR ENTRANCE (2602)	120,215	1,957,186
Badlands NP	TOTAL TRAFFIC COUNT AT NORTHEAST ENTRANCE (2601)	171,792	2,128,978
Badlands NP	TOTAL TRAFFIC COUNT AT PINNACLES ENTRANCE (2603)	125,856	2,254,834
Bandelier NM	TRAFFIC COUNT AT ENTRANCE	0	2,254,834
Big Bend NP	TRAFFIC COUNT AT ROUTE 11-PERS.GAP	59,595	2,314,429
Big Bend NP	TRAFFIC COUNT AT ROUTE 13-MAVERICK	96,153	2,410,582
Big Cypress NPRES	TRAFFIC COUNT AT BEAR ISLAND	6,524	2,417,106
Big Cypress NPRES	TRAFFIC COUNT AT DONA DRIVE	15,652	2,432,758
Big Cypress NPRES	TRAFFIC COUNT AT KIRBY STORTER	25,713	2,458,471
Big Cypress NPRES	TRAFFIC COUNT AT MITCHELL'S LANDING	2,087	2,460,558
Big Cypress NPRES	TRAFFIC COUNT AT MONUMENT LAKE CG	11,647	2,472,205
Big Cypress NPRES	TRAFFIC COUNT AT OASIS PARKING LOT	98,195	2,570,400
Big Cypress NPRES	TRAFFIC COUNT AT PINECREST	0	2,570,400
Big Cypress NPRES	TRAFFIC COUNT AT TURNER RIVER CANOE LAUNCH	15,250	2,585,650
Big Cypress NPRES	TRAFFIC COUNT AT WEST LOOP	25,632	2,611,282
Big Cypress NPRES	TRAFFIC COUNT EAST LOOP ROAD	39,069	2,650,351
Big South Fork NRRA	TRAFFIC COUNT AT ALUM FORD	11,814	2,662,165
Big South Fork NRRA	TRAFFIC COUNT AT BEAR CREEK RECREATION AREA	5,842	2,668,007
Big South Fork NRRA	TRAFFIC COUNT AT BLUE HERON	24,248	2,692,255

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Task 3: Producing Multiple Totals

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Code

```
1 libname pg2 "/export/viya/homes/merve.pakcan@stud.acs.upb.ro/Courses/PG2V2/data";
2
3 /* Task 3 : Producing Multiple Totals */
4 /* Creating the parkTypeTraffic table */
5 data parkTypeTraffic;
6 set pg2.np_yearlyTraffic;
7 /* Reading only rows for National Monument and National Park */
8 if ParkType in ('National Monument', 'National Park') then do;
9 /* Creating new columns named MonumentTraffic and ParkTraffic */
10 if ParkType = 'National Monument' then MonumentTraffic = Count;
11 if ParkType = 'National Park' then ParkTraffic = Count;
12 end;
13 /* Formatting new columns for comma-separated values */
14 format MonumentTraffic ParkTraffic comma10.;
15 run;
16
17 /* Creating a listing report with the specified title and column order */
18 title "Accumulating Traffic Totals for Park Types";
19 proc print data=parkTypeTraffic noobs;
20 var ParkType ParkName Location Count MonumentTraffic ParkTraffic;
21 run;
22
23 /* The first row with a nonzero value for MonumentTraffic is row 51 */
24 /* The value of ParkTraffic in row 10 is 3,538,476 */
```

LogResultsOutput Data (1)

PARKTYPETRAFFIC

Table rows: 478 Columns: 7 of 7 Rows 1 to 200

	Region	Location	@Co...	@MonumentTraffic	@ParkTraffic
1	Northeast	TRAFFIC COUNT AT SAND B...	377...	0	377,759
2	Northeast	TRAFFIC COUNT AT SCHOO...	113...	0	491,360
3	Intermountain	Total Vehicles entering Park	569...	0	1,061,018
4	Northeast	TRAFFIC COUNT AT BAYBER...	368...	0	1,061,018
5	Northeast	TRAFFIC COUNT AT FWS EN...	407...	0	1,061,018
6	Midwest	TOTAL TRAFFIC COUNT AT L...	120...	0	1,181,233
7	Midwest	TOTAL TRAFFIC COUNT AT N...	171...	0	1,353,025
8	Midwest	TOTAL TRAFFIC COUNT AT P...	125...	0	1,478,881
9	Intermountain	TRAFFIC COUNT AT ENTRAN...	0	0	1,478,881
10	Intermountain	TRAFFIC COUNT AT ROUTE ...	59...	0	1,538,476
11	Intermountain	TRAFFIC COUNT AT ROUTE ...	96...	0	1,634,629
12	Southwest	TRAFFIC COUNT AT BEAR IS...	6...	0	1,634,629
13	Southwest	TRAFFIC COUNT AT DONA D...	15...	0	1,634,629
14	Southwest	TRAFFIC COUNT AT KIRBY ST...	25...	0	1,634,629
15	Southwest	TRAFFIC COUNT AT MITCHE...	2...	0	1,634,629
16	Southwest	TRAFFIC COUNT AT MONU...	11...	0	1,634,629
17	Southwest	TRAFFIC COUNT AT OASIS P...	98...	0	1,634,629
18	Southwest	TRAFFIC COUNT AT PINECR...	0	0	1,634,629
19	Southwest	TRAFFIC COUNT AT TURNER ...	15...	0	1,634,629
20	Southwest	TRAFFIC COUNT AT WEST L...	25...	0	1,634,629
21	Southwest	TRAFFIC COUNT EAST LOOP...	39...	0	1,634,629
22	Southwest	TRAFFIC COUNT AT ALUM F...	11...	0	1,634,629
23	Southwest	TRAFFIC COUNT AT BEAR C...	5...	0	1,634,629
24	Southwest	TRAFFIC COUNT AT BLUE HE...	24...	0	1,634,629
25	Southwest	TRAFFIC COUNT AT BURNT ...	33...	0	1,634,629
26	Southwest	TRAFFIC COUNT AT DIVIDE ...	19...	0	1,634,629
27	Southwest	TRAFFIC COUNT AT EAST O...	13...	0	1,634,629
28	Southwest	TRAFFIC COUNT AT LEATHE...	74...	0	1,634,629

49	Intermountain	TRAFFIC COUNT AT NORTH ...	12,...	0	1,646,974
50	Intermountain	TRAFFIC COUNT AT SOUTH ...	113...	0	1,760,347
51	Northeast	TRAFFIC COUNT AT MAIN E...	8,...	8,181	1,760,347

Task 4: Creating a New Column with the SCAN Function

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Code

```
1 libname pg1 "/export/viya/homes/merve.pakcan@stud.acs.upb.ro/Courses/PG1V2/data";
2
3 data np_summary2;
4 set pg1.np_summary;
5 ParkType = scan(ParkName, -1, ' '); /* Extracting the last word */
6 keep Reg Type ParkName ParkType; /* Keeping required columns */
7 run;
8
9 proc print data=np_summary2;
10 run;
11
12 /* In row four, the value of ParkType is 'Preserve'. */
```

LogResultsOutput Data (1)

Obs	Reg	Type	ParkName	ParkType
1	A	NM	Cape Krusenstern National Monument	Monument
2	A	NP	Kenai Fjords National Park	Park
3	A	NP	Kobuk Valley National Park	Park
4	A	PRE	Yukon-Charley Rivers National Preserve	Preserve
5	A	PRE	Bering Land Bridge National Preserve	Preserve
6	A	PRESERVE	Noatak National Preserve	Preserve
7	IM	NM	Alibates Flint Quarries National Monument	Monument
8	IM	NM	Aztec Ruins National Monument	Monument
9	IM	NM	Bandelier National Monument	Monument
10	IM	NM	Canyon De Chelly National Monument	Monument
11	IM	NM	Capulin Volcano National Monument	Monument
12	IM	NM	Casa Grande Ruins National Monument	Monument
13	IM	NM	Cedar Breaks National Monument	Monument
14	IM	NM	Chiricahua National Monument	Monument
15	IM	NM	Colorado National Monument	Monument
16	IM	NM	Devils Tower National Monument	Monument
17	IM	NM	Dinosaur National Monument	Monument
18	IM	NM	El Malpais National Monument	Monument
19	IM	NM	El Morro National Monument	Monument
20	IM	NM	Florissant Fossil Beds National Monument	Monument
21	IM	NM	Fort Union National Monument	Monument
22	IM	NM	Fossil Butte National Monument	Monument
23	IM	NM	Gila Cliff Dwellings National Monument	Monument
24	IM	NM	Hovenweep National Monument	Monument
25	IM	NM	Little Bighorn Battlefield National Monument	Monument
26	IM	NM	Montezuma Castle National Monument	Monument
27	IM	NM	Natural Bridges National Monument	Monument
28	IM	NM	Navajo National Monument	Monument
29	IM	NM	Organ Pipe Cactus National Monument	Monument