4.2 - Practice

If you restarted your SAS session, open and submit the **libname.sas** program in the course files.

Level 1

1. **Creating New Columns**

    Create a new table named **np_summary_update** from **pg1.np_summary**. Create two new columns: **SqMiles** and **Camping**.

    a. Open **p104p04.sas** from the **practices** folder. Create a new column named **SqMiles** by multiplying **Acres** by .0015625.

    b. Create a new column named **Camping** as the sum of **OtherCamping**, **TentCampers**, **RVCampers**, and **BackcountryCampers**.

    c. Format **SqMiles** and **Camping** to include commas and zero decimal places.

    d. Modify the KEEP statement to include the new columns. Run the program.

	Reg	ParkName	DayVisits	OtherLodging	Acres	SqMiles	Camping
1	A	Cape Krusenstern National Monument	15,000	0	649,096.15	1,014	6,375
2	A	Kenai Fjords National Park	346,534	0	669,650.05	1,046	2,162
3	A	Kobuk Valley National Park	15,500	0	1,750,716.16	2,735	7,050
4	A	Yukon-Charley Rivers National Preserve	1,146	0	2,523,512.44	3,943	3,063
5	A	Bering Land Bridge National Preserve	2,642	0	2,697,391.01	4,215	1,123
6	A	Noatak National Preserve	17,000	0	6,587,071.39	10,292	5,500
7	IM	Alibates Flint Quarries National Monument	8,153	0	1,370.97	2	0

Level 2

2. **Creating New Columns with Character and Date Functions**

    The **pg1.eu_occ** table contains individual columns for nights spent at hotels, short stay accommodations, or camps for each year and month. The **YearMon** column is character.

    a. Open a new program. Write a DATA step to create a temporary table named **eu_occ_total** based on the **pg1.eu_occ** table. Create the following new columns:

    -   **Year** – the four-digit year extracted from **YearMon**.
    -   **Month** – the two-digit month extracted from **YearMon**.
    -   **ReportDate** – the first day of the reporting month.

        Note: Use the MDY function and the new **Year** and **Month** columns.

    -   **Total** – the total nights spent at any establishment. Format the new column to display the values with commas.

b. Format **Hotel**, **ShortStay**, **Camp**, and **Total** with commas. Format **ReportDate** to display the values in the form JAN2018.

c. Keep **Country**, **Hotel**, **ShortStay**, **Camp**, **ReportDate**, and **Total** in the new table.

	Country	Hotel	ShortStay	Camp	ReportDate	Total
1	Austria	7,768,564	1,453,530	524,121	SEP2017	9,746,215
2	Austria	11,353,432	3,140,217	1,997,801	AUG2017	16,491,450
3	Austria	10,124,106	2,836,425	1,752,605	JUL2017	14,713,136
4	Austria	7,391,827	1,568,683	914,560	JUN2017	9,875,070
5	Austria	5,068,884	1,054,870	359,560	MAY2017	6,483,314
6	Austria	5,647,811	1,360,315	171,094	APR2017	7,179,220
7	Austria	8,666,740	2,534,986	97,576	MAR2017	11,299,302
8	Austria	10,058,766	2,098,249	127,907	FEB2017	12,285,022

Challenge

3. Creating a New Column with the SCAN Function

a. Access SAS Help to learn about the SCAN function.

b. Create a new program. Create a new temporary table named **np_summary2** based on the **pg1.np_summary** table. Use the SCAN function to create a new column named **ParkType** that is the last word of the **ParkName** column.

Note: Use a negative number for the second argument to count words from right to left in the character string.

c. Keep **Reg**, **Type**, **ParkName**, and **ParkType** in the output table.

	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

End of Practices