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STAT506

HW7

1. Iterative and Conditional DO Loops

   Show all your code and the output of the PROC PRINT.

```
data MoreExports;
    set pg2.eu_sports;
    where Year = 2015 and Country = "Malta" and Sport_Product in ("FISHING", "GOLF");
    Do Year = 2017 to 2031 by 2 until(Amt_Export > 0.25*Amt_Import);
       Amt_Export + Amt_Export * 0.31;
        output;
    end;
run;

proc print data=MoreExports;
run;
```

Obs	Sport_Product	Geo_Code	Country	Year	Amt_Import	Amt_Export
1	FISHING	MT	Malta	2017	733,000	6,550
2	FISHING	MT	Malta	2019	733,000	8,581
3	FISHING	MT	Malta	2021	733,000	11,240
4	FISHING	MT	Malta	2023	733,000	14,725
5	FISHING	MT	Malta	2025	733,000	19,290
6	FISHING	MT	Malta	2027	733,000	25,270
7	FISHING	MT	Malta	2029	733,000	33,103
8	FISHING	MT	Malta	2031	733,000	43,365
9	GOLF	MT	Malta	2017	13,000	1,310
10	GOLF	MT	Malta	2019	13,000	1,716
11	GOLF	MT	Malta	2021	13,000	2,248
12	GOLF	MT	Malta	2023	13,000	2,945
13	GOLF	MT	Malta	2025	13,000	3,858

2. Using a Character Variable as an Index and Terminating a DO Loop Early

   Show all your code and the output of the PROC PRINT.

```
data VisitProj (keep=ParkName Projected DayVisits);
    set pg2.np_summary;
    do Projected = "1st Year", "2nd Year", "3rd Year";
       DayVisits + DayVisits*0.04;
       if DayVisits > 16000 then leave;
    end;
run;

proc print data=VisitProj (obs=6);
run;
```

Obs	ParkName	DayVisits	Projected
1	Cape Krusenstern National Monument	16,224	2nd Year
2	Kenai Fjords National Park	360,395	1st Year
3	Kobuk Valley National Park	16,120	1st Year
4	Yukon-Charley Rivers National Preserve	1,289	3rd Year
5	Bering Land Bridge National Preserve	2,972	3rd Year
6	Noatak National Preserve	17,680	1st Year

3. Using a DATA step to Convert a Wide Table to a Narrow Table

   Show all your code and the output of the PROC PRINT.

```
data CampNarrow(keep=ParkName CampType CampCount);
    set pg2.np_2017camping;
    by ParkName;
    length CampType $11;
    CampType="Tent";
    CampCount=Tent;
    output;
    CampType="RV";
    CampCount=RV;
    output;
    CampType="Backcountry";
    CampCount=Backcountry;
    output;
run;
proc print data=CampNarrow(obs=6);
run;
```

Obs	ParkName	CampType	CampCount
1	Acadia NP	Tent	152586
2	Acadia NP	RV	55812
3	Acadia NP	Backcountry	1597
4	Amistad NRA	Tent	0
5	Amistad NRA	RV	11019
6	Amistad NRA	Backcountry	0

4. Using a DATA step to Convert a Narrow Table to a Wide Table

   Show all your code and the output of the PROC PRINT.

```
data CampWide;
    set pg2.np_2016camping;
    by ParkName;
    retain ParkName Tent RV Backcountry;
    if CampType="Tent" then Tent=CampCount;
    else if CampType="RV" then RV=CampCount;
    else if CampType="Backcountry" then Backcountry=CampCount;
    if last.ParkName=1 then output;
    drop CampCount CampType;
run;
proc print data=CampWide(obs=6);
run;
```

Obs	ParkName	Tent	RV	Backcountry
1	Acadia NP	152811	46629	1324
2	Amistad NRA	38	8265	0
3	Aniakchak NM & PRES	0	0	235
4	Apostle Islands NL	0	0	11220
5	Arches NP	28046	18658	1174
6	Assateague Island NS	40826	20735	973

5. Using PROC TRANSPOSE

   Show all your code and the output of the PROC PRINT.

```
proc sort data=pg2.weather_highlow out=sort_lowhigh;
    by Location descending Month Temp;
run;

proc transpose data=sort_lowhigh out=HighTemps(drop=_NAME_) let;
    id Month;
    var Temp;
    by Location;
run;

proc print data=HighTemps;
run;
```

Obs	Location	Jun	Jul	Aug
1	Black Canyon Of The Gunnison, CO	84	92	87
2	Moose, WY	80	90	89
3	Panther Junction, TX	104	101	98
4	Port Alsworth, AK	75	80	.