

Level 2 Practice: Using Macro Variables to Subset Data in Procedures

1. Create a new program.

- Write a PROC FREQ step to analyze rows from **pg1.np_species**.
- Include only rows where **Species_ID** starts with *YOSE* (Yosemite National Park) and **Category** equals *Mammal*.
- Generate frequency tables for **Abundance** and **Conservation_Status**.

```
proc freq data=pg1.np_species;  
  tables Abundance Conservation_Status;  
  where Species_ID like "YOSE%" and  
         Category="Mammal";  
run;
```

2. Write a PROC PRINT step to list the same subset of rows from **pg1.np_species**.

- Include **Species_ID**, **Category**, **Scientific_Name**, and **Common_Names** in the report.
- Submit the program.

```
proc print data=pg1.np_species;  
  var Species_ID Category Scientific_Name Common_Names;  
  where Species_ID like "YOSE%" and  
         Category="Mammal";  
run;
```

3. How many rows meet the two specified conditions?

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- ### 4. Create a macro variable named **ParkCode** to store *YOSE*, and another macro variable named **SpeciesCat** to store *Mammal*. Modify the code to reference the macro variables. Submit the program and confirm that the same results are generated.

Note: The macro variable values are case sensitive when they are used in a WHERE statement.

```
%let ParkCode=YOSE;  
%let SpeciesCat=Mammal;  
  
proc freq data=pg1.np_species;  
  tables Abundance Conservation_Status;  
  where Species_ID like "&ParkCode%" and  
         Category="&SpeciesCat";  
run;  
  
proc print data=pg1.np_species;  
  var Species_ID Category Scientific_Name Common_Names;  
  where Species_ID like "&ParkCode%" and
```

```
        Category="&SpeciesCat";  
run;
```

The same results are generated.

5. Change the values of the macro variables to *ZION* (Zion National Park) and *Bird*. Submit the program.

```
%let ParkCode=ZION;  
%let SpeciesCat=Bird;  
  
proc freq data=pg1.np_species;  
    tables Abundance Conservation_Status;  
    where Species_ID like "&ParkCode%" and  
           Category="&SpeciesCat";  
run;  
  
proc print data=pg1.np_species;  
    var Species_ID Category Scientific_Name Common_Names;  
    where Species_ID like "&ParkCode%" and  
           Category="&SpeciesCat";  
run;
```

6. How many rows meet the two specified conditions?

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