Level 2 Practice: Subsetting by Multiple Conditions and Creating a Sorted SAS Table

The **np_species** table includes one row for each species that is found in each national park.

1. Create a new program.
    - Write a DATA step to read the **pg1.np_species** table and create a new table named **fox**.
      Note: If you are using SAS Studio, try creating **fox** as a permanent table in the **EPG194/output** folder.
    - Include only the rows where **Category** is *Mammal* and **Common_Names** includes *Fox* in any case.
    - Exclude the **Category**, **Record_Status**, **Occurrence**, and **Nativeness** columns.
    - Submit the program.

```
* if you are creating a permanent table, you must submit a LIBNAME statement and then reference out.fox;
* libname out "path-to-EPG194/output";

data fox;
    set pg1.np_species;
    where Category='Mammal' and upcase(Common_Names) like '%FOX%';
    drop Category Record_Status Occurrence Nativeness;
run;
```

2. Notice that *Fox Squirrels* are included in the output table. Add a condition in the WHERE statement to exclude rows that include *Squirrel*. Submit the program and verify the results.

```
data fox;
    set pg1.np_species;
    where Category='Mammal' and upcase(Common_Names) like '%FOX%'
        and upcase(Common_Names) not like '%SQUIRREL%';
    drop Category Record_Status Occurrence Nativeness;
run;
```

3. Sort the **fox** table by **Common_Names**.

```
data fox;
    set pg1.np_species;
    where Category='Mammal' and upcase(Common_Names) like '%FOX%'
        and upcase(Common_Names) not like '%SQUIRREL%';
    drop Category Record_Status Occurrence Nativeness;
run;

proc sort data=fox;
    by Common_Names;
run;
```

4. What is the value of **Common_Names** in row one?

    Arctic Fox