STAT 541: Test 1

Table 1 (Data set County) and Table 2 (Data set Zillow) contain pricing information for homes in a single block based on county assessments and Zillow estimates, respectively; the column headers are the actual variable names.

1. Write code for a report that prints the County data set with an improved format for Assessment and a better label for PlatNo. The variables should be listed so that PlatNo precedes Address.

2. Undergraduates should write code to generate the same report, but list the properties by descending assessment. Graduate students should provide code to list properties ordered by year (2010, 2015) and then by descending price.

3. Write code to select all addresses from Zillow that are on Waccamaw Ave. Graduate students should list two different ways of doing so.

4. (a) Write code to create a table of County assessments from 2010 only (call this table County2010). Repeat this code to create a table of 2015 assessments named County2015.

   (b) Write code to create another table that is a full join of these data sets (you can join on either Address or PlatNo). The new data set should include the address, the plat number, the 2010 assessment, and the 2015 assessment. The table should look something like this:

Address	PlatNo	2010 Assessment	2015 Assessment
2100 Oceola St	R11309-12-01	.	93500
504 S Waccamaw Ave	R11309-12-07	86000	90000
506 S Waccamaw Ave	R11309-12-06	142500	149800
508 S Waccamaw Ave	R11212-10-01	12000	122500

5. (a) Assume the above table is named County1015. Undergraduates should write code to generate a report that includes the net increase in house value. Graduate students should write code to generate a report that includes the relative increase in house value and expresses it as a relative percentage in an appropriate format.

   (b) Using the above code as an inline view, write code to generate a report that lists all houses that appreciated by more than $3000 (undergraduates) or 3% (graduates).

6. What output would the following commands generate? How will this change if we add the keyword CORR?

```
proc sql;
select address from Zillow except select address from County;
quit;
```

7. Write code that generates a two-line report listing the highest assessment for each of the years 2010 and 2015 from table County. Graduate students should modify the code to list only years with highest assessment greater than $145,000.

8. Add the following record for the 2010 assessment to the 2100 Oceola St house using the method of your choice.

```
2100 Oceola St R11309-12-01 2010 90000
```

9. Write code to update Zillow's estimates by 10% for the Kennedy Street House, 5% for Waccamaw Ave addresses, and 3% for the Oceola Street house.

Data sets

Address	PlatNo	Year	Assessment
2100 Oceola St	R11309-12-01	2015	93500
504 S Waccamaw Ave	R11309-12-07	2015	90000
506 S Waccamaw Ave	R11309-12-06	2015	149800
508 S Waccamaw Ave	R11212-10-01	2015	122500
504 S Waccamaw Ave	R11212-12-07	2010	86000
506 S Waccamaw Ave	R11212-12-06	2010	142500
508 S Waccamaw Ave	R11212-10-01	2010	120000

Table 1: Data Set County. Address, Plat Number, Assesment Year, and Assessed Value for houses on a block in Rosewood

Address	Estimate	SqFt
2100 Oceola St	123687	1509
504 S Waccamaw Ave	105168	1106
506 S Waccamaw Ave	160378	1400
508 S Waccamaw Ave	133508	1462
510 S Waccamaw Ave	134899	1450
512 S Waccamaw Ave	127139	1224
514 S Waccamaw Ave	118038	1250
528 S Waccamaw Ave	142268	1512
2107 Kennedy St	144743	1624

Table 2: Data Set Zillow. Address, Zillow Estimate and Square Footage for houses on a block in Rosewood