# SOUTHERN METHODIST UNIVERSITY MSDS 6371(401)

# Kaggle Project

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## 4.3. Checking Assumptions

- 4.3.1. Residual Plots
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## 4.4. Comparing Competing Models

- 4.4.1.  $Adj R^2$
- 4.4.2. Internal CV Press
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### 4.5. Conclusion

Predictive Models	Adjusted R <sup>2</sup>	CV Press	Kaggle Score
Forward	XX	XX	XX
Backward	XX	XX	XX
Stepwise	XX	XX	XX
CUSTOM	XX	XX	XX

Table 4.1: Analysis Results

### A. SOURCE CODE FOR ANALYSIS 1

Listing 1: Analysis 1 SAS Code.

```
/* Dummy Code File for Group Project */
   data crabs;
           infile '/folders/myfolders/MSDS6371/HW12/Datasets/Crab17.csv'
           missover delimiter=',' firstobs=2;
5
           input Force Height Species $;
6
           logForce = log(Force);
           logHeight = log(Height);
           sqrtForce = sqrt(Force);
           sqrtHeight = sqrt(Height);
10
           invForce = 1/Force;
11
           invHeight = 1/Height;
12
   run;
13
  PROC REG DATA=crabs;
15
           model Force = Height;
16
           model logForce = Height;
17
           model Force = logHeight;
18
           model logForce = logHeight;
19
           model sqrtForce = Height;
           model Force = sqrtHeight;
           model sqrtForce = sqrtHeight;
22
           model invForce = Height;
23
           model Force = invHeight;
24
           model invForce = invHeight;
25
  RUN;
```

## B. SOURCE CODE FOR ANALYSIS 2

## Listing 2: Analysis 2 SAS Code.

```
/* Dummy Code File for Group Project */
2
   data crabs;
           infile '/folders/myfolders/MSDS6371/HW12/Datasets/Crab17.csv'
           missover delimiter=',' firstobs=2;
5
           input Force Height Species $;
6
           logForce = log(Force);
           logHeight = log(Height);
8
           sqrtForce = sqrt(Force);
           sqrtHeight = sqrt(Height);
10
           invForce = 1/Force;
11
           invHeight = 1/Height;
12
   run;
13
14
  PROC REG DATA=crabs;
15
           model Force = Height;
16
           model logForce = Height;
17
           model Force = logHeight;
18
           model logForce = logHeight;
19
           model sqrtForce = Height;
20
           model Force = sqrtHeight;
           model sqrtForce = sqrtHeight;
           model invForce = Height;
23
           model Force = invHeight;
24
           model invForce = invHeight;
25
  RUN;
```