301044 Data Science
Week 3 Lab R Code

R Code: Multiple Regression: Advertising Data

- install.packages("ISLR")
- attach(Advertising)
- head(Advertising)

- mod=lm(Sales~TV+Radio+Newspaper)
- summary(mod)
- mod$residuals
- plot(predict(mod),mod$residuals)
- hist(mod$residuals)
- predict(mod)
- predict(mod,interval="confidence")
- predict(mod,interval="confidence")
- predict(mod,as.data.frame(cbind (TV=50,Radio=50,Newspaper=50)))

Non Linear Models

- **Interaction Term**

 - model=lm(Sales~TV+Radio+TV*Radio)

-summary(model)

- **Polynomial Regression**

-model1=lm(Sales~poly(TV,3))

- summary(model1)