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Tut 3: Basic R plot:

- Tutorial part1: Pie chart, barplot, histogram, scatterplot, Contingency Table + Stacked barplot,

- Tutorial part2: rpivotTable, pareto analysis, spread(key = , n = ) + table(kable)

Tut 4: Outlier Analysis:

- Tutorial part 1: histogram, density plot, normal Q-Q plot, boxplot, pnorm()

- Tutorial part 2: describe(),boxplot + outlier values, pnorm()

Tut 5: Sample Estimate Hypo Testing:

- Tutorial part 2: Just Follow this tutorial, likely standard questions

Tut 6: Linear Regression:

- Tutorial part 1: label colour and name for point in ggplot, multiple regression

- Tutorial part 2: multivariate linear regression, integer continuous var vs factor var, marginal effect, partial derivative, predict()on linear model

Tut 7: Log Regression & Time Series:

- Sample: finding window size with RSME, using HoltWinterModel to predict and test it against the test set of data, lagged lm(), interaction lm() analysis

- Tutorial part 1: SMA plot, clearer RSME calculation, ggplot(group = ), subset, facet\_grid

- Tutorial part 2: detrending by adding time trend var t, SMA, Holt-Winters, lm() analysis (Q3)

standard glm() analysis for categorical DV (family = binomial), Predict() on glm (Q4)

6. Data Mining:

- Sample: PCA, confusion matrix

- Tutorial part 1: pairs.panels(d1X, lm=T), elbow method to determine the cluster size, clustering and clustering anaylsis

- Tutorial part 2: Multicollinearity, vif() (if >5, there is multicollinearity), confusion matrix

7. Linear Optimisation:

- Just look at sample and tutorial part 2 is enough

8. Integer Optimization:

- int.vec = c() , binary.vec = c()

* Mock Practise Paper
  + Q1: Statistical Measures, Probability distributions, Hypo testing (1920 S2 Q1)
  + Q2 : Integer Optimisation (Course selection w pre-requisites logic)
* 2122 SEM 2
  + Q1 : Profile Dashboard, Descriptive Statistics
  + Q2 : Linear Regression
  + Q3 : Linear Optimisation
* 2021 SEM 1
  + Q1 : Statistical Measures, Probability distributions, Hypo testing
  + Q2 : Integer Optimisation
  + Q3 : Linear Regression, Time Series
* 1920 SEM 2
  + Q1 : Statistical Measures, Probability distributions, Hypo testing
  + Q2 : Linear Regression
  + Q3 : Integer Optimization
* 1819 SEM 2
  + Q1 : Integer Optimisation
  + Q2 : Statistical Measures ; pnorm/probabilities
  + Q4 : Hypothesis Testing, Prediction Intervals
* 1819 SEM 1
  + Q1 : (1a)SMA, Mean Square Error ; (1b) exponential smoothing table using RMSE
  + Q2 : Linear Optimisation
  + Q3 : Prediction Interval VS Confidence Interval
  + Q4 : Descriptive Analytics, Compute Confidence Interval, Hypothesis Testing
* 1718 SEM 2
  + Q5a : Integer Optimisation matrix style
  + Q5b: Comparing between 2 new variables in Integer Optimisation
  + Q6: SMA & Mean Square Error
* 1718 SEM 1
  + Q1 : Types of Analysis
  + Q2 : Z -stat, Critical Values
  + Q3 : Hypothesis Testing
  + Q4 : Linear Optimisation
  + Q5 : Linear Regression