greatlearning
Learning for Life

STATISTICAL METHODS FOR DECISION MAKING (Week 2)

greatlearning
Learning for Life

GROUND RULES

- Come prepared for these sessions by watching the video lectures.
  - Concepts will be covered in the videos.
  - Hands-On Application will be covered in Mentor Sessions.

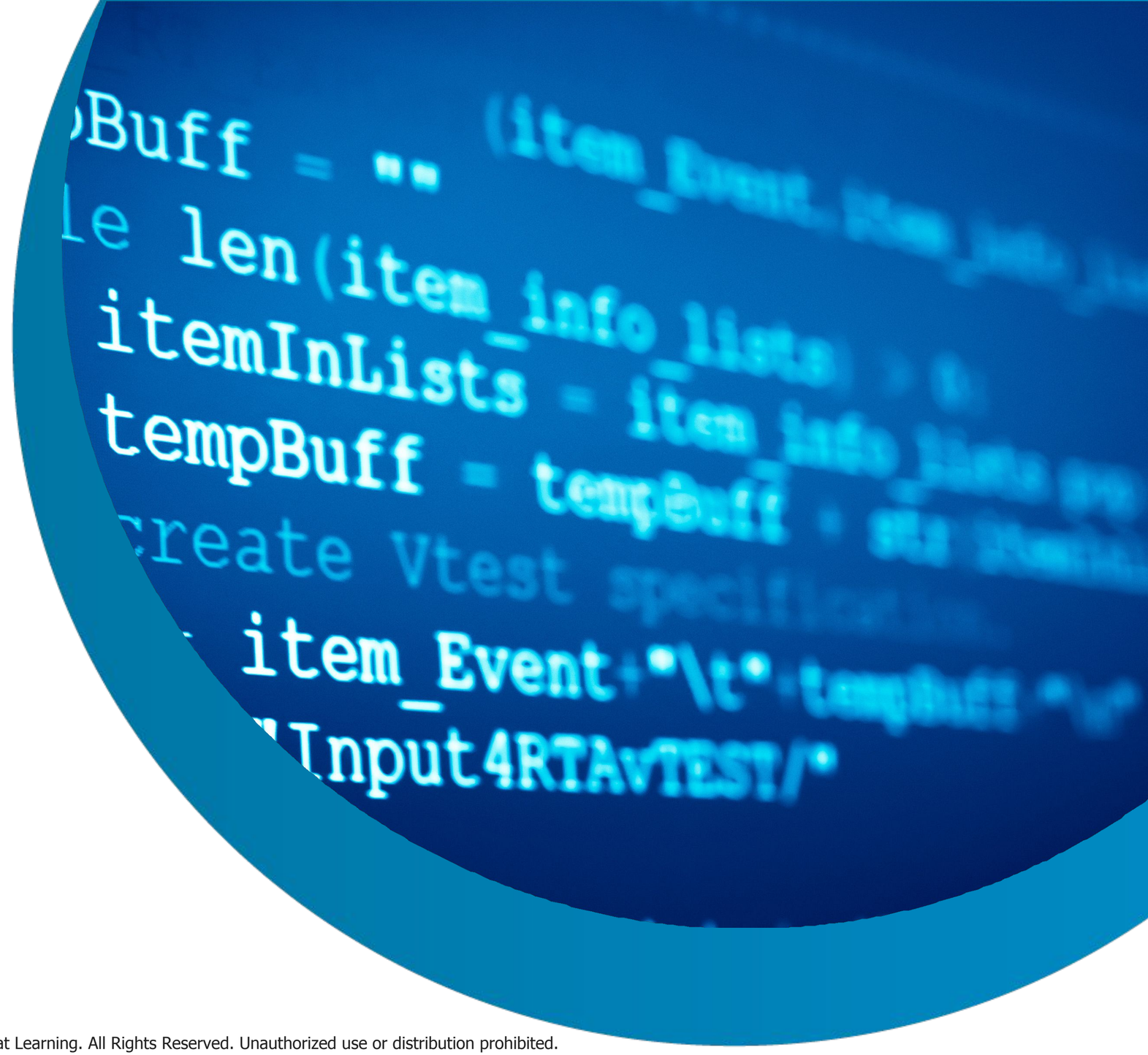
- Submit all assignments on time.

- Let’s be punctual & respect each other’s time.

greatlearning
Learning for Life

LEARNING OBJECTIVE OF THIS MODULE

- Descriptive Statistics
- Inferential Statistics
- Hypothesis Testing



greatlearning
Learning for Life

LEARNING OBJECTIVES OF THIS SESSION - APPLICATION OF INFERENTIAL STATISTICS

- Probability
- Bayes' Theorem
- Probability Distributions

greatlearning
Learning for Life

TRY ANSWERING THE FOLLOWING

- If a dice is thrown twice, what is the probability of getting 6 in both throws

- What is the formula to find mean and standard deviation for Normal Distribution

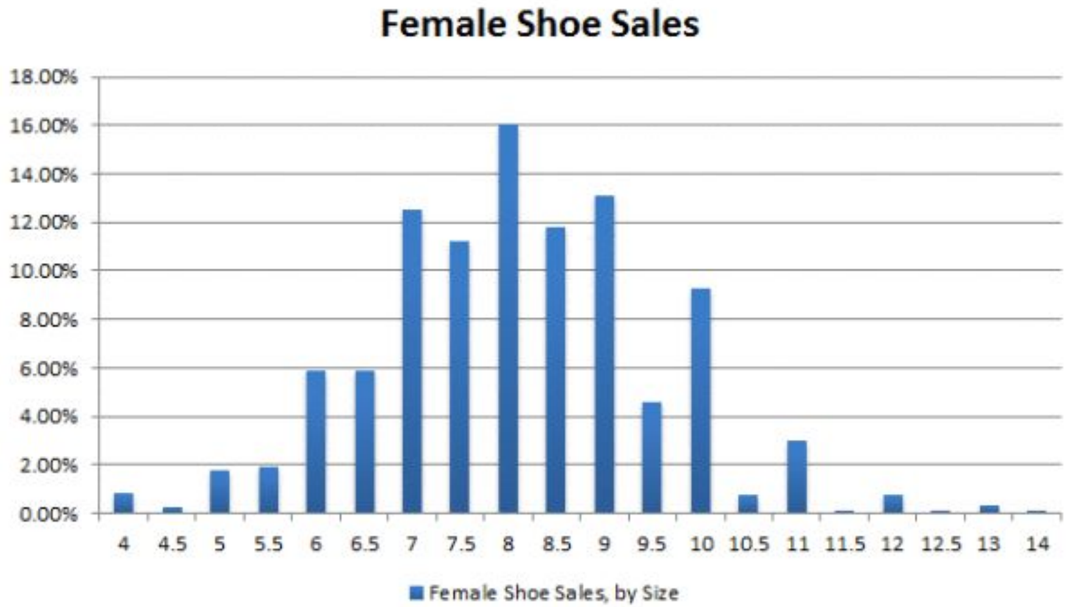
- In case of Normal Distribution what percentage of data will lie in the range of $\mu \pm 2\sigma$?

greatlearning
Learning for Life

Real Life Example - Female Shoe Sales

This data present on the right shows the distribution of Female Shoe Sales in USA in 1998.

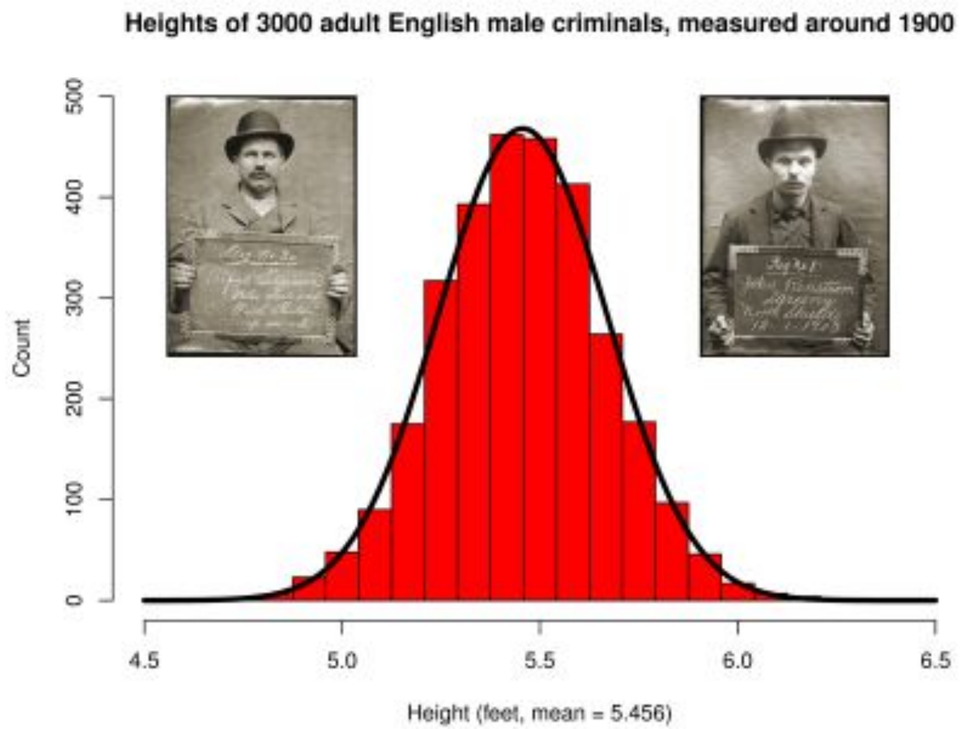
It can be used by footwear companies to produce the footwears in similar proportions and hence minimize inventory and maximize profits.



https://thoughtburner.org/tag/normal-distribution/

greatlearning
Learning for Life

School Shootings – Can Potential Shooter Profiles be Identified?



The use of statistics has long been important in the human sciences. An early example is an analysis by William Sealy Gosset (alias "Student") of biometric data obtained by Scotland Yard around 1900. The heights of 3,000 male criminals fit a bell curve almost perfectly.

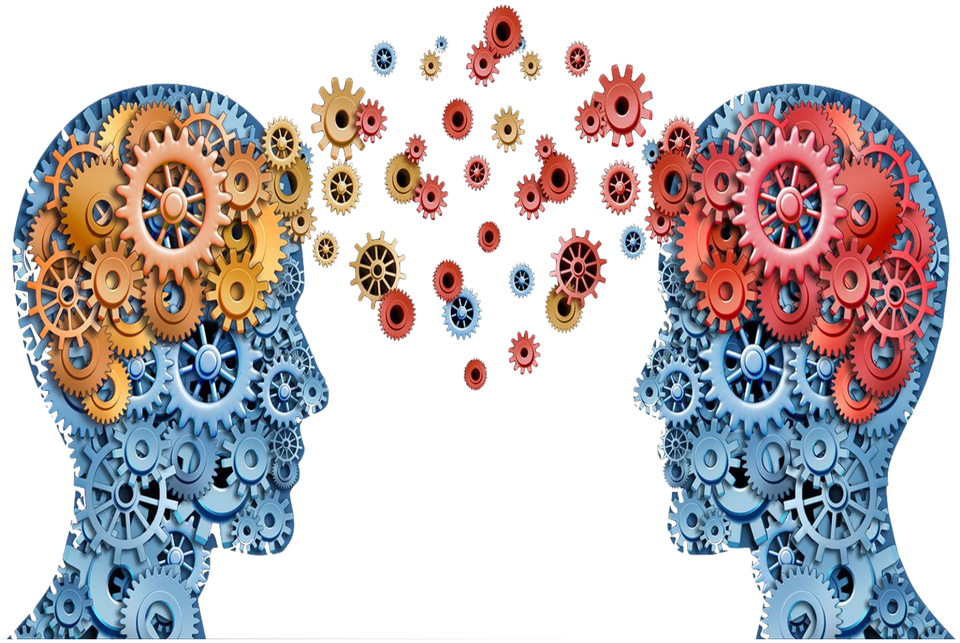
https://igorscience.org/category/research/

greatlearning
Learning for Life

Let’s Learn Together – A Unique Platform for Peer to Peer Learning

Next Week’s Theme:

Hypothesis Testing and Its Real Time/Industry Applications



Benefits of Peer to Peer Learning:

- Active Learning
- Gain a Deeper Understanding
- Feel More Comfortable
- Personalized Learning Experience

What all can be discussed in a Discussion forum?

- Analytical Concepts
- Issues in Code
- Real Time/Industry Examples

greatlearning
Learning for Life

CASE STUDIES

Probability

1) HR Employee Satisfaction
2) ATM Usage

Probability Distribution

1) Automobile Pollution
2) HR Appraisal
3) Labor Union Selection criteria
4) Average monthly cellphone bill
5) Campus Recruitment
6) ATM usage during night hours

Bayes Theorem

1) Computer Component scores

greatlearning
Learning for Life

BY THE ALUMs

I used to devote an hour a day from my busy schedule to watch videos and practice Hand-on almost everyday. This helped me make the best use of the mentored learning session because I could clarify my doubts after understanding the core concepts from the videos itself.

P. Venkatesh Iyer

greatlearning
Learning for Life

ANY QUESTIONS

greatlearning
Learning for Life

HAPPY LEARNING