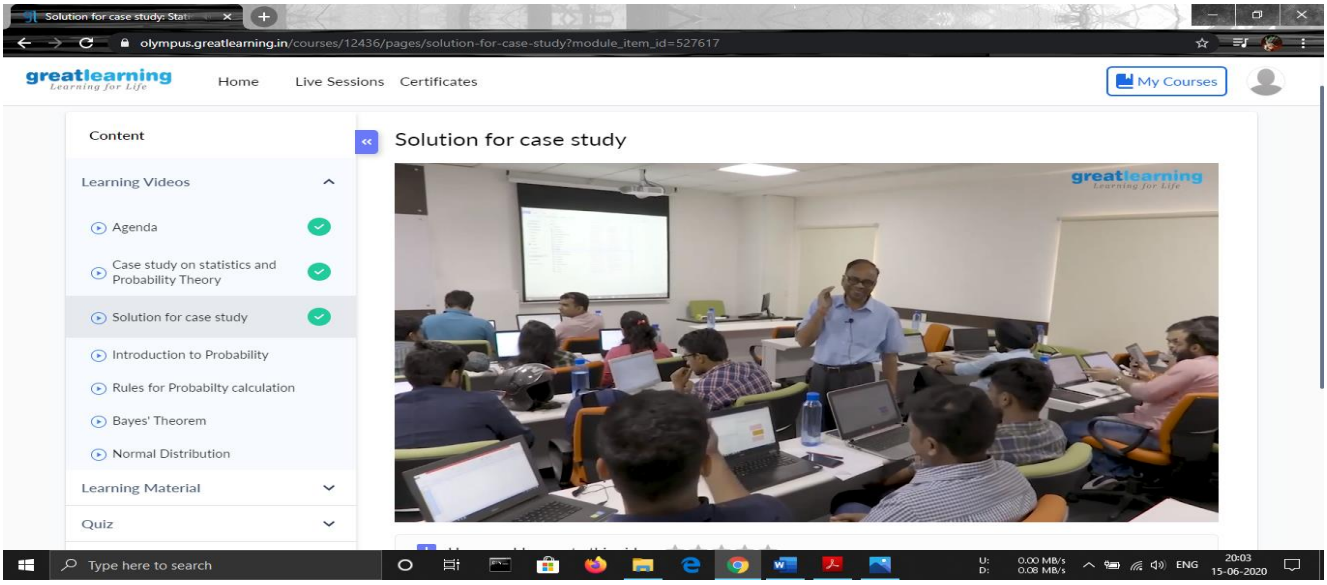
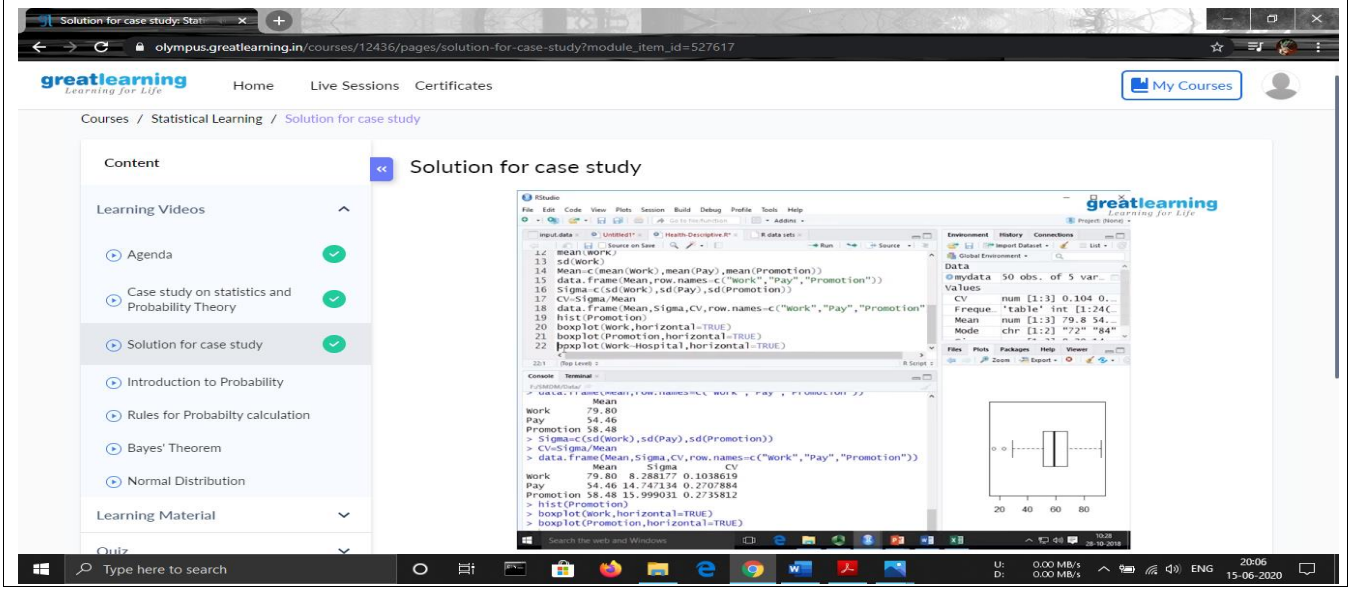
DAILY ASSESSMENT REPORT

Date:	**15/06/2020**	**Name:**	**Abhishek M Shastry K**
Course:	**Statistical Learning**	**USN:**	**4AL17EC002**
Topic:	**1] Agenda** **2] Case Study on statistics & probability theory** **3] Solution for case study**	**Semester & Section:**	**6th 'A'**
Github Repository:	**AbhishekShastry-Courses**		

FORENOON SESSION DETAILS

Image of session



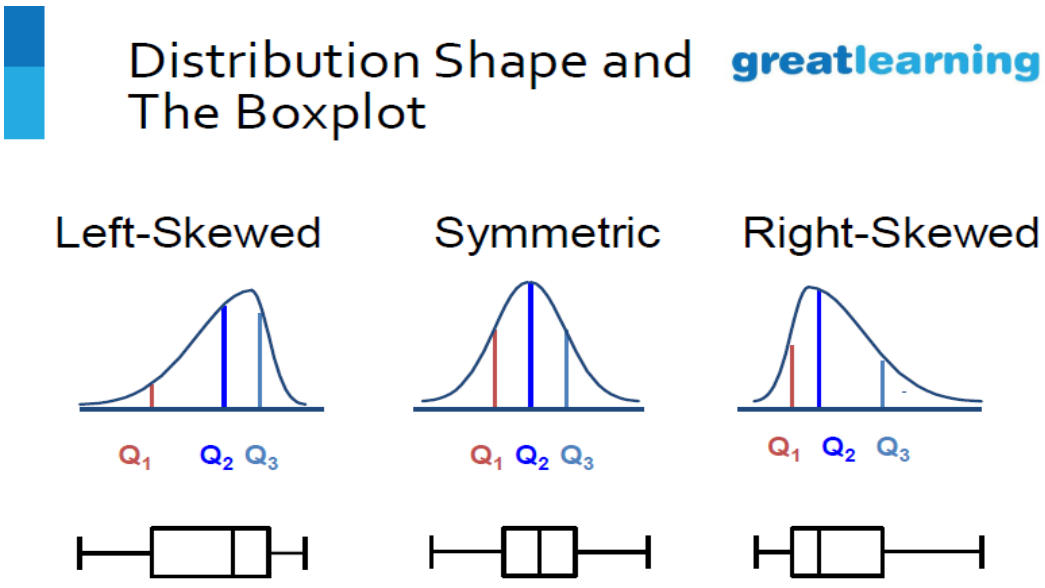


Report

Fundamentals of Business Statistics

- **Meaning of Raw Data**
  - ✓ Raw Data represent numbers and facts in the original format in which the data have been Collected. You need to convert the raw data into information for managerial decision Making.
- **Frequency Distribution**
  - ✓ In simple terms, frequency distribution is a summarized table in which raw data are arranged into classes and frequencies.
  - ✓ Frequency distribution focuses on classifying raw data into information. It is the most widely used data reduction technique in descriptive statistics.
- **Histogram** (also known as frequency histogram) is a snap shot of the frequency distribution. Histogram is a graphical representation of the frequency distribution in which the X-axis represents the classes and the Y-axis represents the frequencies in bars. Histogram depicts the pattern of the distribution emerging from the characteristic being measured.
- **What is Central Tendency?**
  - ✓ Whenever you measure things of the same kind, a fairly large number of such measurements will tend to cluster around the middle value. Such a value is called a measure of "Central Tendency". The other terms that are used synonymously are "Measures of Location", or "Statistical Averages".
- **Arithmetic Mean** (called mean) is defined as the sum of all observations in a data set divided by the total number of observations.
- **Median** is the middle most observation when you arrange data in ascending order of magnitude. Median is such that 50% of the observations are above the median and 50% of the observations are below the median. Median is a very useful measure for ranked data in the context of consumer preferences and rating. It is not affected by extreme values (greater resistance to outliers).
- **Mode** is that value which occurs most often. It has the maximum frequency of occurrence. Mode also has resistance to outliers. Mode is a very useful measure when you want to keep in the inventory, the most popular shirt in terms of collar size during festival season.

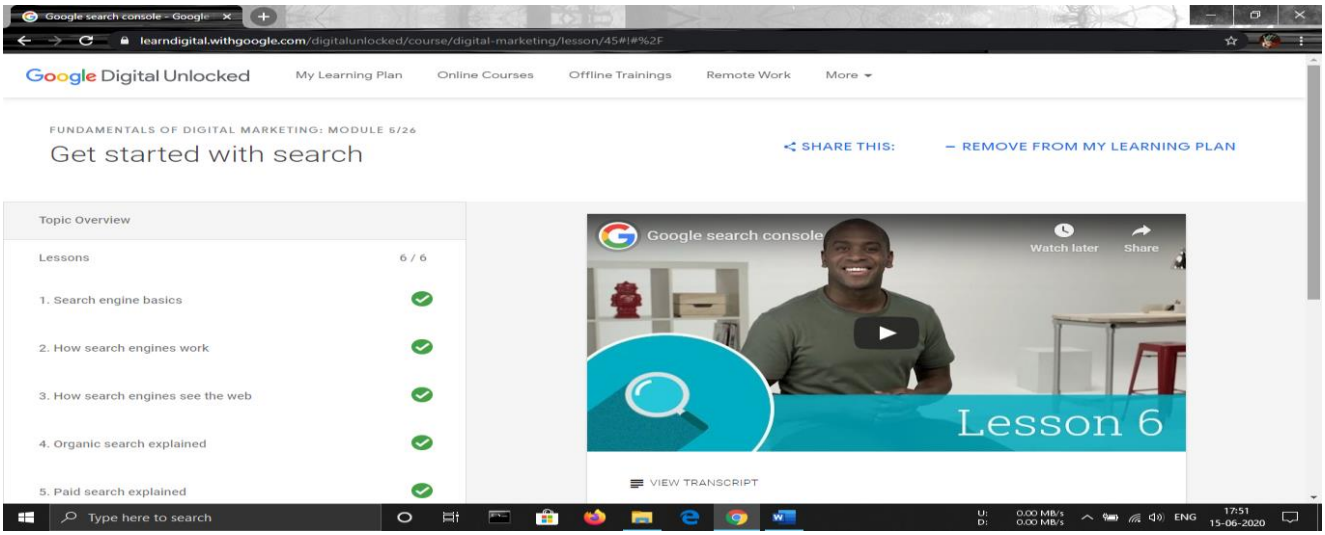
- **Inter-Quartile Range(IQR)**
    - ✓ IQR is Range computed on middle 50% of the observations after eliminating the highest and lowest 25% of observations in a data set that is arranged in ascending order. IQR is less affected by outliers.
- **Standard deviation** forms the cornerstone for Inferential Statistics. To define standard deviation, you need to define another term called variance. In simple terms, standard deviation is the square root of variance.
- **Coefficient of Variation** (CV) is defined as the ratio of Standard Deviation to Mean.
- The **empirical rule** approximates the variation of data in a bell-shaped distribution.
- **The Five Number Summary**
- The five numbers that help describe the center, spread and shape of data are:
    - ✓ Xsmallest.
    - ✓ First Quartile (Q1).
    - ✓ Median (Q2).
    - ✓ Third Quartile (Q3).
    - ✓ Xlargest.
- **The Boxplot**: A Graphical display of the data based on the five-number summary.

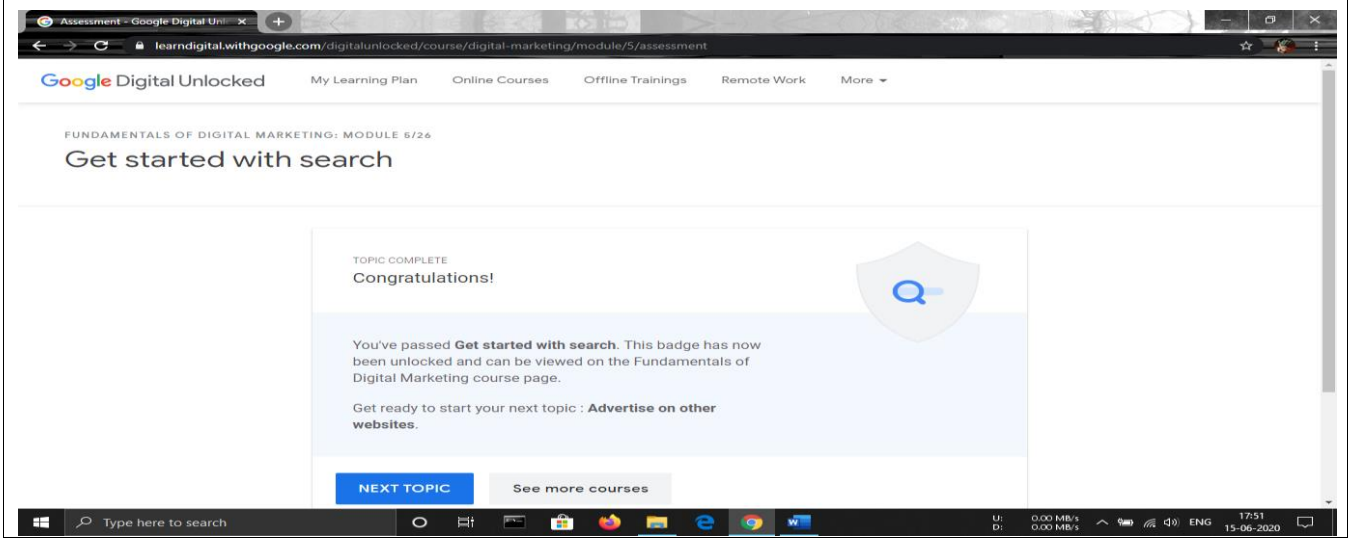


Date:	**15/06/2020**	**Name:**	**Abhishek M Shastry K**
Course:	**Google Digital Unlocked: Fundamentals of digital marketing**	**USN:**	**4AL17EC002**
Topic:	**1] Get started with search** • **Search engine basics** • **How search engines work** • **How search engines see the web** • **Organic search explained** • **Paid search explained** • **Google search console**	**Semester & Section:**	**6th 'A'**
Github Repository:	**AbhishekShastry-Courses**		

AFTERNOON SESSION DETAILS

Image of session





Report

Search engine basics

- Fast forward a few decades, and search engines like Google, Bing, Yahoo!, Ask.com, AOL, Baidu, and Yandex have come a long way. These search engines use incredibly sophisticated computer programs to sort through a massive number of web pages.
- Most search engines basically work in the same way. When a person wants to find something, they type in a word or phrase, called a search query.
- Then, the search engine compares that query to its catalogue of web pages, pulling out the best matches to show the searcher. These are displayed on a search results page.

How search engines work

- Each search engine uses their own software programs, but the way they work is pretty similar. They all perform three tasks: First, they examine content they learn about and have permission to see (that's called crawling). Second, they categorize each piece of content (that's called indexing). And third, they decide which content is most useful to searchers (that's called ranking).
- Let's take a closer look at how these works. Search engines "crawl" the Internet to discover content, like web pages, images and videos. Each search engine uses computer programs called "bots" (short for robot), "crawlers" or "spiders" to make their way through the pages.
- The bots hop from page to page by following links to other pages. These bots never stop; their sole purpose is to visit and revisit pages looking for new links and new content to include in the index. Indexing is the second part of the process. The index is a gigantic list of all the web pages and content found by the bots. The search engine uses this index as the source of information displayed on the search results pages.

How search engines see the web

- By knowing how a search engine decides what a page is about, you can optimize your pages to make sure they show up in the search results of people looking for websites just like yours. Let's say you own a coffee shop, and you've got a website to promote it. When you look at a page on the site you see this.

- But when a search engine looks at the same page, in addition to seeing what you see on your screen, it also sees the code behind it, called HTML.
- Specific parts of this code help the search engine understand what the web page is all about. And knowing which parts are important can help you to optimize your site. First, the title of the page in the code.
- Many websites can be edited using tools that handle all the HTML coding, that's called as a content management system, or CMS.

Organic search explained

- Organic results typically appear in the center of the page, and are the results the search engine decides are the best match for the search query, or words, that were typed in.
- Results pages will also display advertisements, or paid results, though they'll be separate and labeled as ads. Although organic results and ads appear on the same page, there's one big difference: there's no cost to appear in the organic results.
- If you can help the search engine decide that your website is what people are searching for, you're in good shape. Making improvements to your website to help it appear in the organic results is called search engine optimization, or SEO. Good SEO involves helping a search engine find and understand your site.

Paid search explained

- Some of these results are selected by the search engine's organic formula. These pages are considered the most relevant web pages the search engine can find for this search. The other sections are ads.
- You don't see ads for unrelated things, and interestingly enough, the adverts seem quite similar to the organic results.
- This is by design, and it's what makes paid search advertising so effective. A search engine's most important job is to show people the results they are looking for, and this extends to the ads.
- The bid is the maximum amount an advertiser is willing to pay for a click on an ad. If someone clicks the ad, the advertiser is charged an amount equal to or sometimes less than the bid.

Google search console

- The “Links to your site” report shows websites that link to your site. Think of these as “referrals.” The list should include websites relevant to coffee. More and more people use mobile devices to access the Internet, so while you’re in Google Search Console you should also check out the “Mobile Usability Report”. This’ll point out pages on your site that don’t work well on mobile phones, which you can then fix to improve your website performance when people search on mobile. There are two more really handy features within Search Console to know about: “Crawl” reports, and “Google Index” reports.
- “Crawl” reports let you monitor whether Google can visit your web pages. This is important because if Google can’t access your web pages, your content can’t be included in Google’s search results.
- The “Google Index” reports show what information Google recorded about your site and tells you if your pages are accessible. It’s easy to get started with Search Console.
- Now Search Console can generate reports for your site—for free! It might take a few days before you see useful information because it must first gather and process the data. If you see a "No data yet" message, check back later. Now that your site’s set up in Google Search Console, you can use the reports to figure out how to improve your presence on Google. Using the reports, you can make changes to help Google better understand your web pages and as a result make your website perform better.