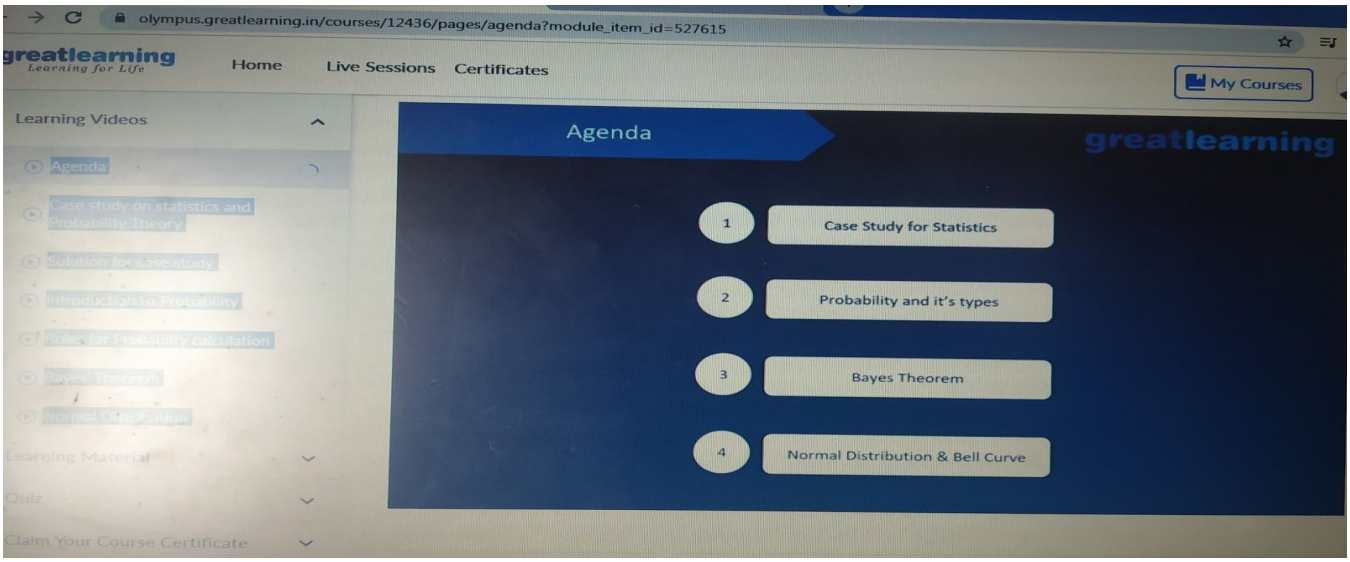
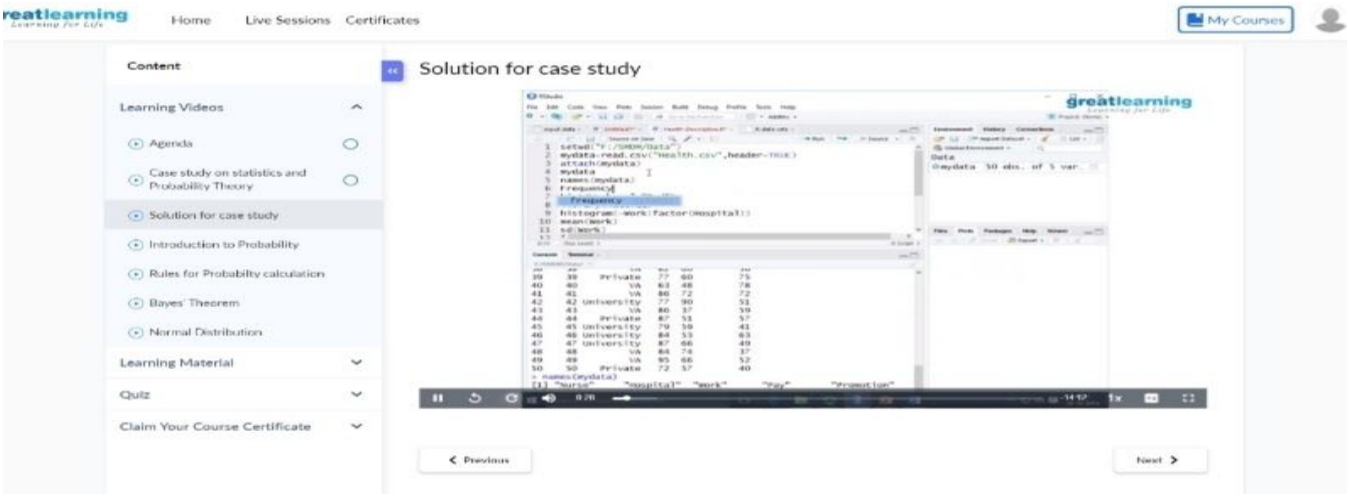
DAILY ASSESSMENT FORMAT

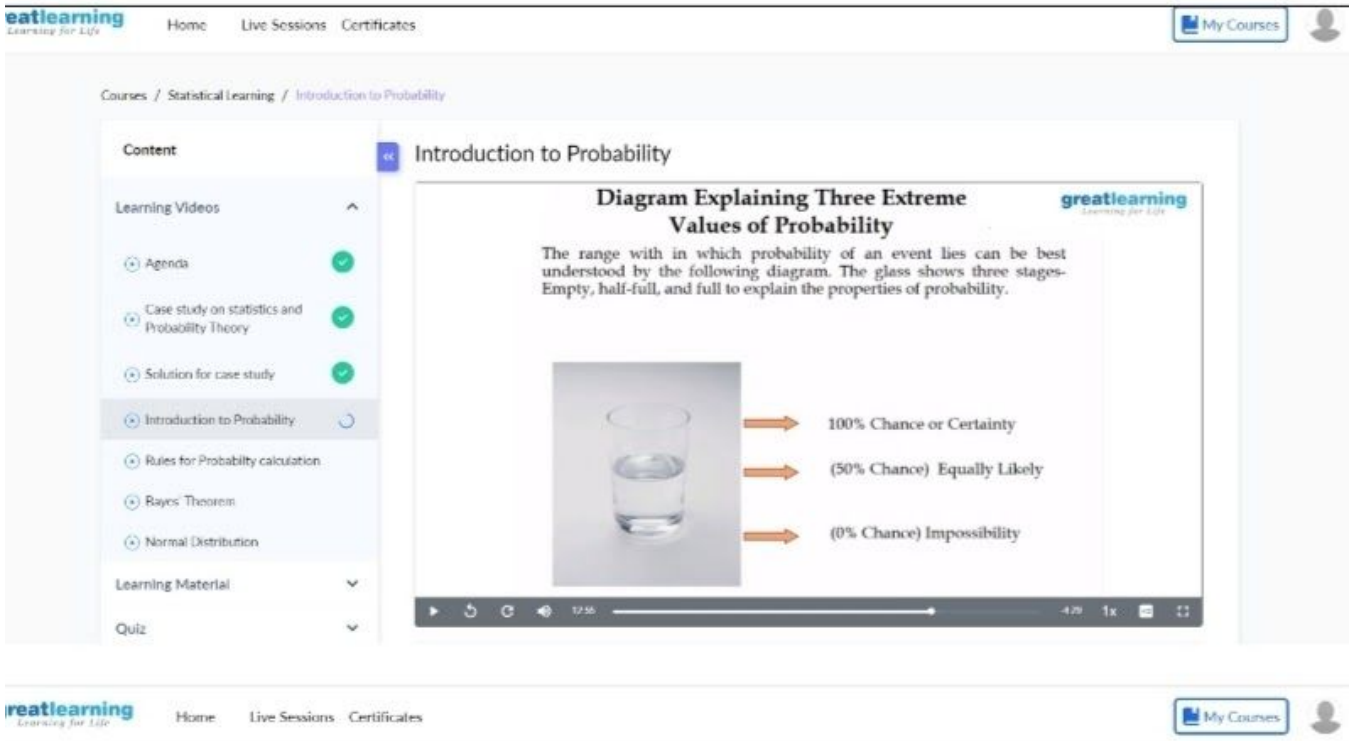
Date:	**16-06-2020**	**Name:**	**MOUNITHA D M**
Course:	**Statistical Learning**	**USN:**	**4AL17EC055**
Topic:	**Case study of statistics and probability solution for case study Introduction to probability**	**Semester & Section:**	**6TH SEM "A" SEC**
Github Repository:	**Mounitha_-ec055**		

FORENOON SESSION DETAILS

Image of session



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Case study on statistics and Probability Theory
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Diagram Explaining Three Extreme Values of Probability
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The range with in which probability of an event lies can be best understood by the following diagram. The glass shows three stages- Empty, half-full, and full to explain the properties of probability.
100% Chance or Certainty
(50% Chance) Equally Likely
(0% Chance) Impossibility
1x

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Statistical learning

16/06/2020

Case Study of Statistics and probability theorems

> Box plot

In descriptive statistics, a box plot or boxplot is a method for graphically depicting groups of numerical data through their quartiles.

Box plots may also have lines extending from the boxes indicating variability outside the upper and lower quartiles.

hence the terms box and whisker plot and box and whisker diagram.

Histogram

A histogram is a graphical display of data using bars of different heights. In a histogram each bar groups numbers into ranges. Taller bars show that more data falls in the range.

A histogram displays the shape and spread of continuous sample data.

Probability

Probability of an event A is defined as the ratio of two numbers m and n

In symbol.

$P(A) = m/n$

where m = number of ways that are favorable to the occurrence of A

n = the total number of outcomes of the Experiment

P(A) is always >= 0 and <= 1

P(A) is a prime number

Probability meaning and concepts

→ probability refers to chance or likelihood of a particular event taking place

→ An event is an outcome of an experiment

→ An experiment is a process that is performed to understand and observe possible outcomes

→ set of all outcomes of an experiment is called the Sample Space

Venn diagram

→ A venn diagram is a diagram that shows all possible logical relations between a finite collection of different sets.

→ These diagram depict elements as points in the plane. and sets as regions inside closed curves.

→ A venn diagram consists of multiple overlapping closed curves, usually circles, each representing a set.

→ Two events are mutually exclusive if they cannot occur at the same time.