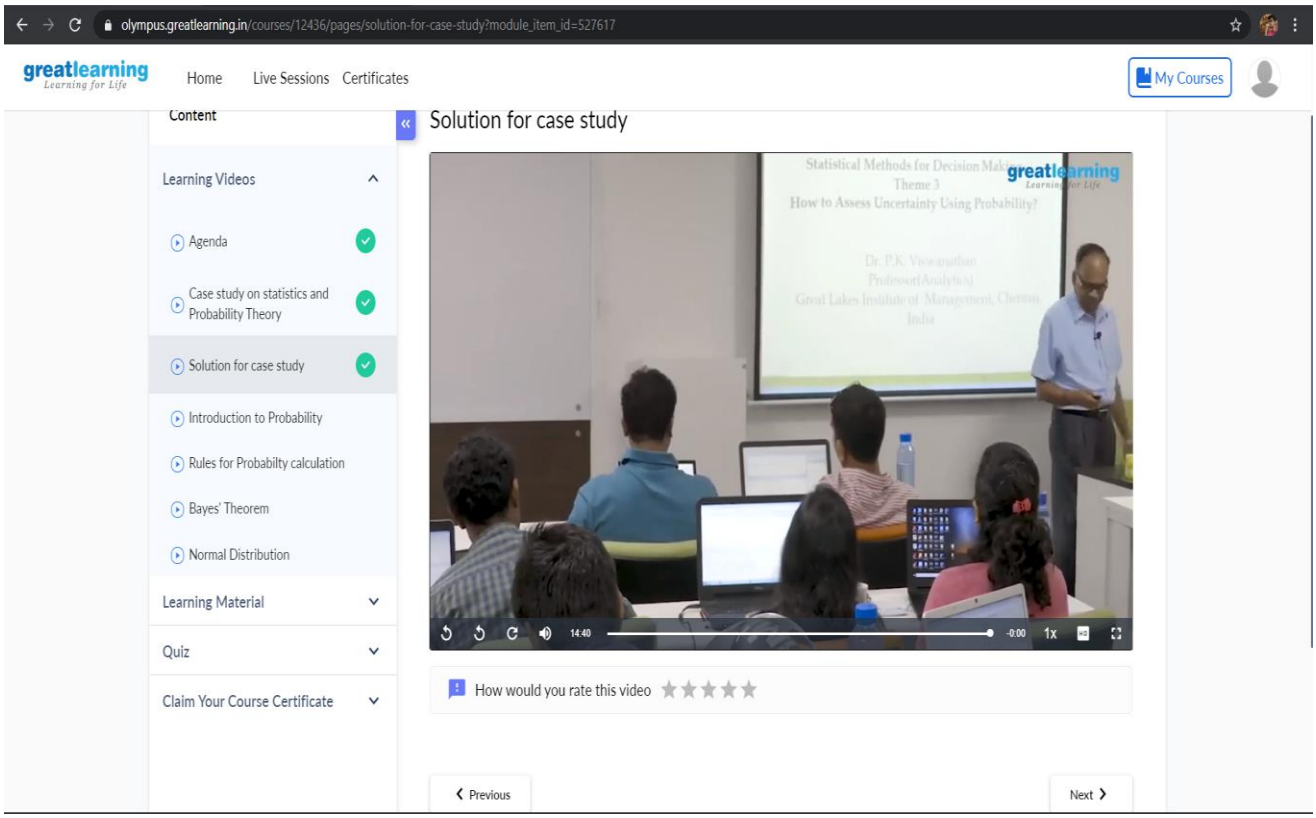
DAILY ASSESSMENT REPORT

Date:	**16 June 2020**	**Name:**	**Gagan M K**
Course:	**Statistical Learning**	**USN:**	**4AL17EC032**
Topic:	• Case Study on statistics & probability theory • Solution for case study • Webinar on "An Overview of Avionics in Electronics Industry"	**Semester & Section:**	**6th sem & 'A' sec**
GitHub Repository:	**Alvas-education-foundation/Gagan-Git**		

FORENOON SESSION DETAILS

Image of session



Report – Report can be typed or hand written for up to two pages.

Case Study:

National Health Care Association
(Adapted from Anderson, Sweeney, and Williams for Classroom Discussion)

The National Health Care Association is concerned about the shortage of nurses the health care profession is projecting for the future. To learn the current degree of job satisfaction among nurses, the association has sponsored a study of hospital nurses throughout the country. As part of this study, a sample of 50 nurses was asked to indicate their degree of satisfaction in their work, their pay and their opportunities for promotion. Each of the three aspects of satisfaction was measured on a scale from 0 to 100, with larger values indicating higher degrees of satisfaction. The data collected also showed the type of hospital employing the nurses. The types of hospitals were private (P), Veterans Administration (VA) and University (U). The complete data set is on the file named "Health.csv".

How do you make insights or wisdom out of this data set? What are the insights?

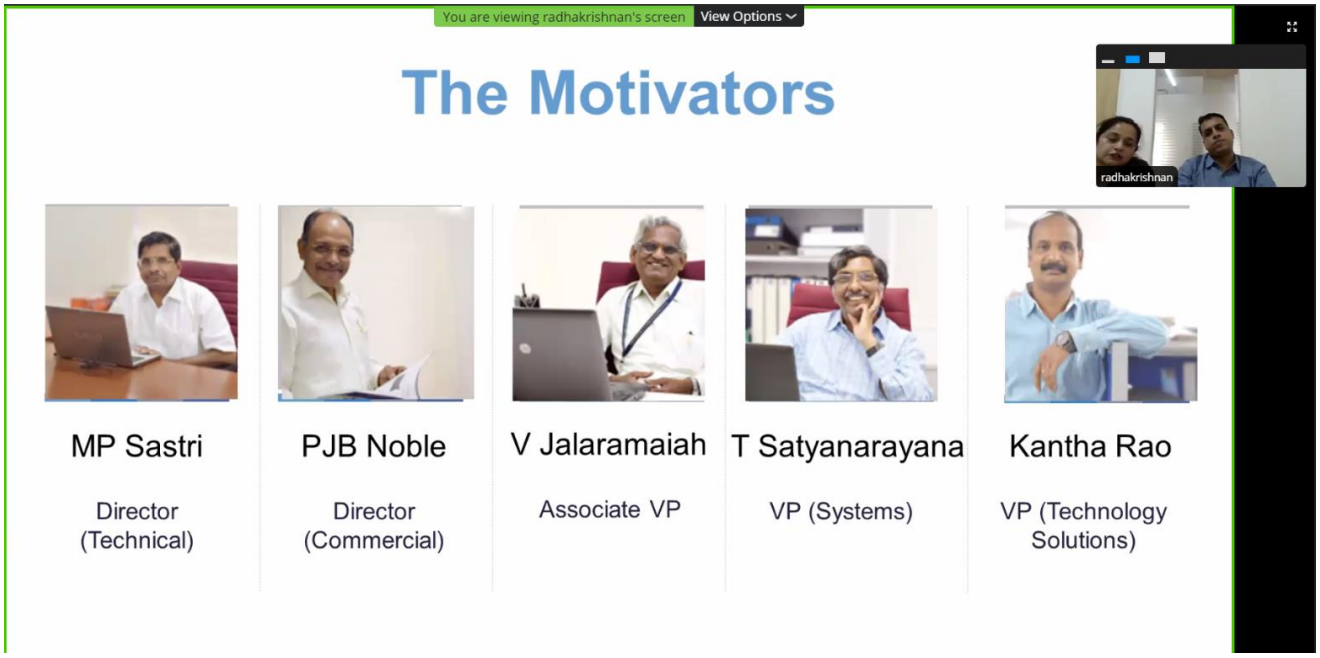
1) What is the mode for work?
2) Which of the three attributes has the highest mean satisfactory score?/ lowest mean satisfaction score?
3) Find out the coefficient of variation for work, pay, and promotion
4) In the histogram for Promotion, which class has the highest concentration?
5) Is the shape of box plot for Work is skewed? If so, which direction?
6) How many points are outliers in Promotion Box Plot?
7) If All the Box plots for Work are drawn for all the hospitals, which hospital type has the best median value?
8) If box plots for Work, Pay, Promotion are drawn in the same space, how many outliers are there for promotion, and Pay?

- **For the above Case study questions, Answers were discussed as shown below.**

```
10 library(lattice)
11 histogram(~Work|factor(Hospital))
12 mean(Work)
13 sd(Work)
14 Mean=c(mean(Work),mean(Pay),mean(Promotion))
15 data.frame(Mean,row.names=c("Work","Pay","Promotion"))
16 Sigma=c(sd(Work),sd(Pay),sd(Promotion))
17 CV=Sigma/Mean
18 data.frame(Mean,Sigma,CV,row.names=c("Work","Pay","Promotion"
19 hist(Promotion)
20 boxplot(Work,hori)
```

horizontal =

Attended a Webinar on "An Overview of Avionics in Electronics Industry" conducted by "Mr. Radhakrishnan M". Organized by Department of Electronics and Communication Engineering of AIET

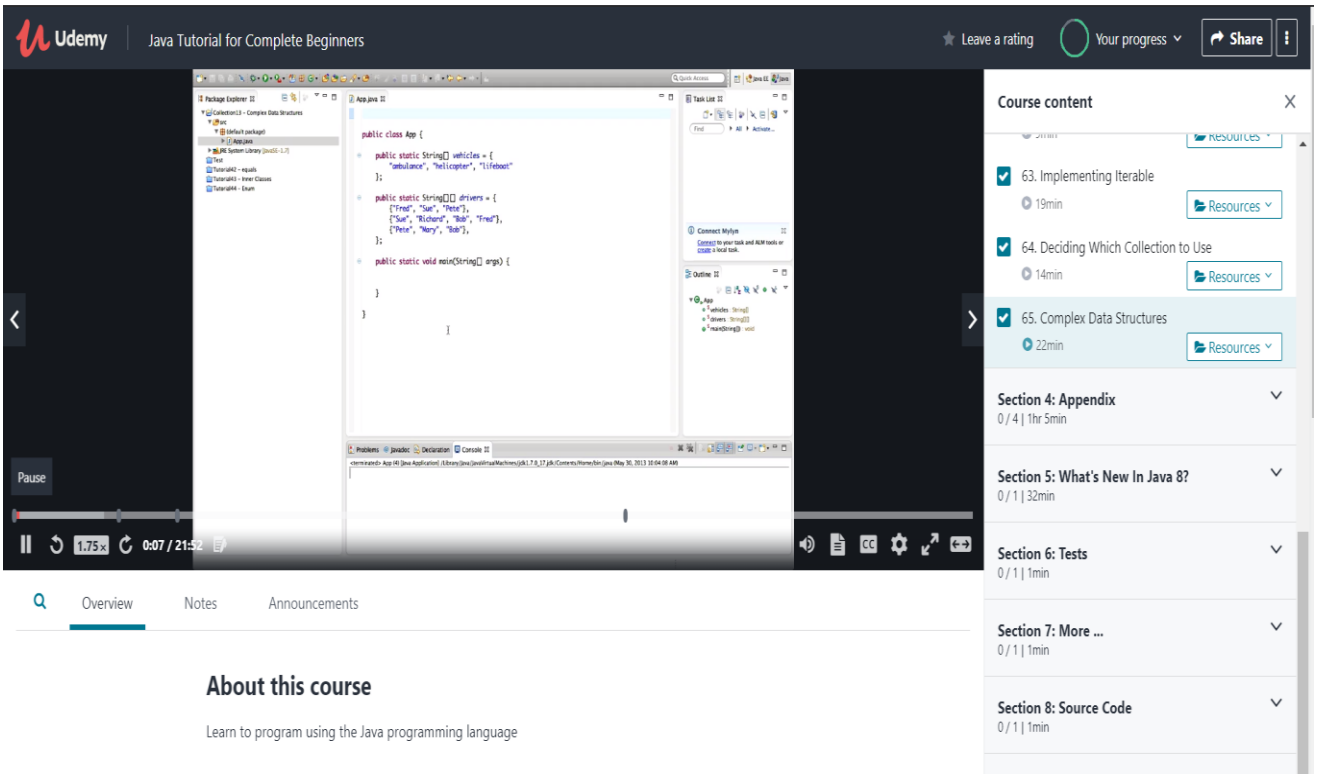


Certificate:

Date:	16 June 2020	Name:	Gagan M K
Course:	Java Tutorial for Complete Beginners	USN:	4AL17EC032
Topic:	• Natural Ordering • Queues • Using Iterators • Implementing Iterable • Deciding Which Collection to Use • Complex Data Structures	Semester & Section:	6th sem & 'A' sec

AFTERNOON SESSION DETAILS

Image of session:



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Java:

- **Natural Ordering was learnt in Java.**
- **Example programs using Queues were practiced in Java.**
- **Learnt how to use Iterators in Java Programming language.**
- **Also learnt how to implement Iterable in Java.**
- **Deciding Which Collection to Use in Java.**
- **Complex Data Structures was seen with an example.**

```
package one;
import java.util.Arrays;
import java.util.Comparator;
import java.util.List;

public class naturalordering {
    public static void main(String... args)
    {

        List<String> stringList
            = Arrays.asList("Bheem", "Raju",
                            "Jaggu", "Chutki");

        System.out.println("Before sorting:");
        stringList.forEach(System.out::println);

        stringList.sort(Comparator.naturalOrder());
        System.out.println("\nAfter sorting:");
        stringList.forEach(System.out::println);
    }
}
```

- **Example for Iterators.**

```
package one;
import java.io.*;
import java.util.*;
class iterator {
    public static void main(String[] args)
    {
        ArrayList<String> list = new ArrayList<String>();

        list.add("H");
        list.add("A");
        list.add("H");
        list.add("A");
        list.add("H");

        // ListIterator to traverse the list
        ListIterator iterator = list.listIterator();

        // Traversing the list in forward direction
        System.out.println("Displaying list elements in forward direction : ");

        while (iterator.hasNext())
            System.out.print(iterator.next() + " ");

        System.out.println();

        // Traversing the list in backward direction
        System.out.println("Displaying list elements in backward direction : ");

        while (iterator.hasPrevious())
            System.out.print(iterator.previous() + " ");

        System.out.println();
    }
}
```