

DAILY ASSESSMENT FORMAT

Date:	16th June 2020	Name:	Sahana S R
Course:	Statistical Learning	USN:	4AL17EC083
Topic:	Case Study on statistics & probability theory, Solution for case study	Semester & Section:	6th sem 'B' sec
Github Repository:	sahanasr-course		

FORENOON SESSION DETAILS

Image of session

The first screenshot displays the 'Case study on statistics and Probability Theory' page. It includes a sidebar with a 'Content' menu listing various topics like 'Agenda', 'Case study on statistics and Probability Theory', 'Solution for case study', 'Introduction to Probability', 'Rules for Probability calculation', 'Bayes' Theorem', and 'Normal Distribution'. The main content area features a text block titled 'National Health Care Association (Adapted from Anderson, Sweeney, and Williams for Classroom Discussion)'. The text describes a survey of 10 nurses regarding their satisfaction, pay, and promotion opportunities. The data is categorized by hospital type: Private (P), Veterans Administration (VA), and University (U). The data set is named 'Health.csv'.

The second screenshot shows the 'Solution for case study' page. It contains R code for loading and analyzing the 'Health.csv' data. The code includes comments and function calls like 'read.csv', 'str', 'summary', and 'table'. Below the code, a data table is displayed, showing columns for 'Case', 'Hospitals', 'Work', 'Pay', and 'Promoted too'. The table lists 10 cases, each corresponding to a nurse, and their respective attributes.

Agenda:

- Case study for statistics
- Probability and its types
- Bayes theorem
- Normal distribution and bell curve

Case study on statistics:

Case study research is a qualitative research method that is used to examine contemporary real-life situations and apply the findings of the case to the problem under study. Case studies involve a detailed contextual analysis of a limited number of events or conditions and their relationships. It provides the basis for the application of ideas and extension of methods. It helps a researcher to understand a complex issue or object and add strength to what is already known through previous research.

STEPS OF CASE STUDY METHOD

In order to ensure objectivity and clarity, a researcher should adopt a methodical approach to case studies research. The following steps can be followed:

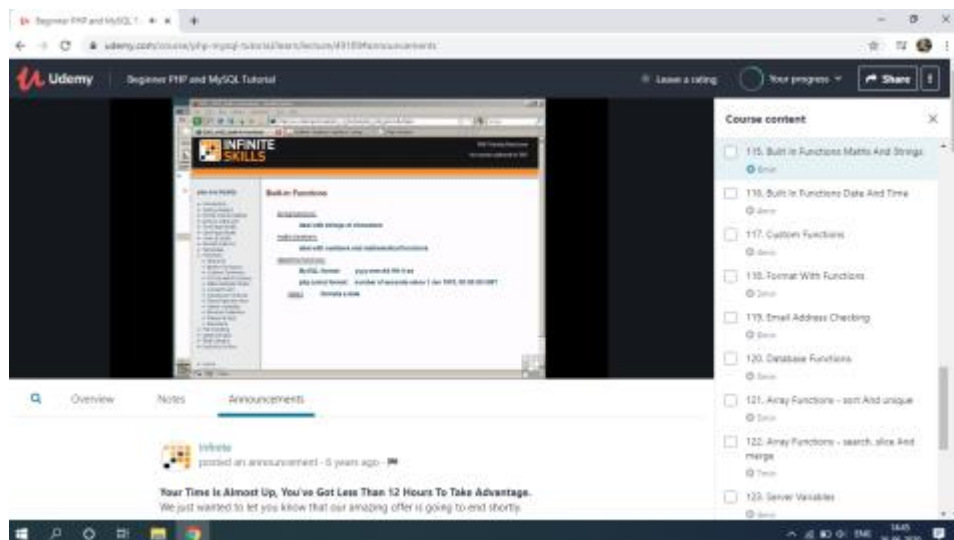
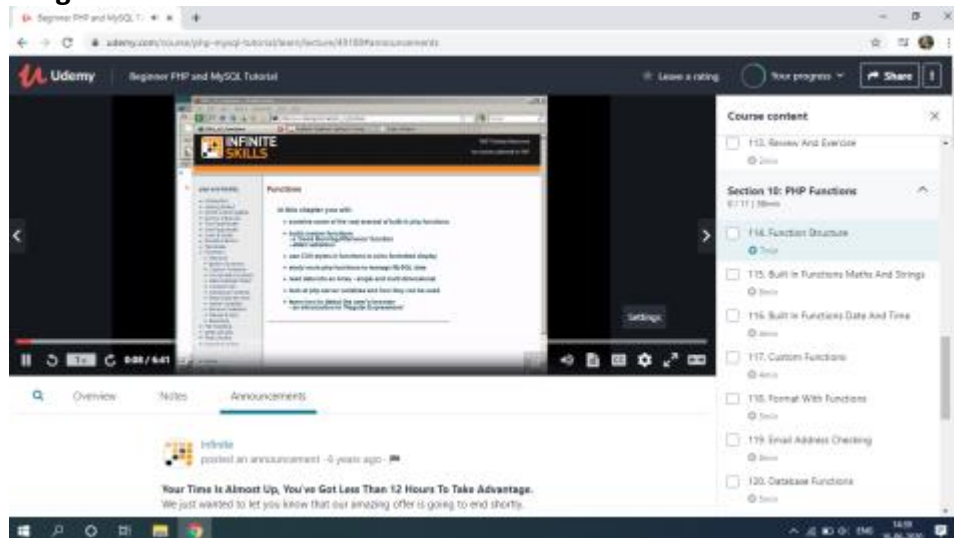
1. Identify and define the research questions - The researcher starts with establishing the focus of the study by identifying the research object and the problem surrounding it. The research object would be a person, a program, an event or an entity.
2. Select the cases - In this step the researcher decides on the number of cases to choose (single or multiple), the type of cases to choose (unique or typical) and the approach to collect, store and analyze the data. This is the design phase of the case study method.
3. Collect the data - The researcher now collects the data with the objective of gathering multiple sources of evidence with reference to the problem under study. This evidence is stored comprehensively and systematically in a format that can be referenced and sorted easily so that converging lines of inquiry and patterns can be uncovered.
4. Evaluate and analyze the data - In this step the researcher makes use of varied methods to analyze qualitative as well as quantitative data. The data is categorized, tabulated and cross checked to address the initial propositions or purpose of the study. Graphic techniques like placing information into arrays, creating matrices of categories, creating flow charts etc. are used to help the investigators to approach the data from different ways and thus avoid making premature conclusions. Multiple investigators may also be used to examine the data so that a wide variety of insights to the available data can be developed.
5. Presentation of Results - The results are presented in a manner that allows the reader to evaluate the findings in the light of the evidence presented in the report. The results are corroborated with sufficient evidence showing that all aspects of the problem have been adequately explored. The newer insights gained and the conflicting propositions that have emerged are suitably highlighted in the report.

DAILY ASSESSMENT FORMAT

Date:	16th June 2020	Name:	Sahana S R
Course:	udemy	USN:	4AL17EC083
Topic:	mysql	Semester & Section:	6th sem 'B' sec
Github Repository:	sahanasr-course		

AFTERNOON SESSION DETAILS

Image of session



PHP Function Arguments:

Information can be passed to functions through arguments. An argument is just like a variable. Arguments are specified after the function name, inside the parentheses. You can add as many arguments as you want, just separate them with a comma. The following example has a function with one argument (\$fname). When the familyName() function is called, we also pass along a name (e.g. Jani), and the name is used inside the function, which outputs several different first names, but an equal last name:

Example

```
<?php
function familyName($fname) {
    echo "$fname Refsnes.<br>";
}
```

```
familyName("Jani");
familyName("Hege");
familyName("Stale");
familyName("Kai Jim");
familyName("Borge");
?>
```

PHP automatically associates a data type to the variable, depending on its value. Since the data types are not set in a strict sense, you can do things like adding a string to an integer without causing an error. In PHP 7, type declarations were added. This gives us an option to specify the expected data type when declaring a function, and by adding the strict declaration, it will throw a "Fatal Error" if the data type mismatches. In the following example we try to send both a number and a string to the function without using strict:

```
<?php
function addNumbers(int $a, int $b) {
    return $a + $b;
}
echo addNumbers(5, "5 days");
// since strict is NOT enabled "5 days" is changed to int(5), and it will return 10
?>
```

PHP Default Argument Value:

The following example shows how to use a default parameter. If we call the function setHeight() without arguments it takes the default value as argument:

```
<?php declare(strict_types=1); // strict requirement
function setHeight(int $minheight = 50) {
    echo "The height is : $minheight <br>";
}
setHeight(350);
setHeight(); // will use the default value of 50
setHeight(135);
setHeight(80);
?>
```

PHP Functions - Returning values:

To let a function return a value, use the return statement:

```
<?php declare(strict_types=1); // strict requirement
function sum(int $x, int $y) {
    $z = $x + $y;
    return $z;
}

echo "5 + 10 = " . sum(5, 10) . "<br>";
echo "7 + 13 = " . sum(7, 13) . "<br>";
echo "2 + 4 = " . sum(2, 4);
?>
```

PHP Return Type Declarations:

PHP 7 also supports Type Declarations for the return statement. Like with the type declaration for function arguments, by enabling the strict requirement, it will throw a "Fatal Error" on a type mismatch.

To declare a type for the function return, add a colon (:) and the type right before the opening curly ({}) bracket when declaring the function.

In the following example we specify the return type for the function:

Example

```
<?php declare(strict_types=1); // strict requirement
function addNumbers(float $a, float $b) : float {
    return $a + $b;
}
echo addNumbers(1.2, 5.2);
?>
```

