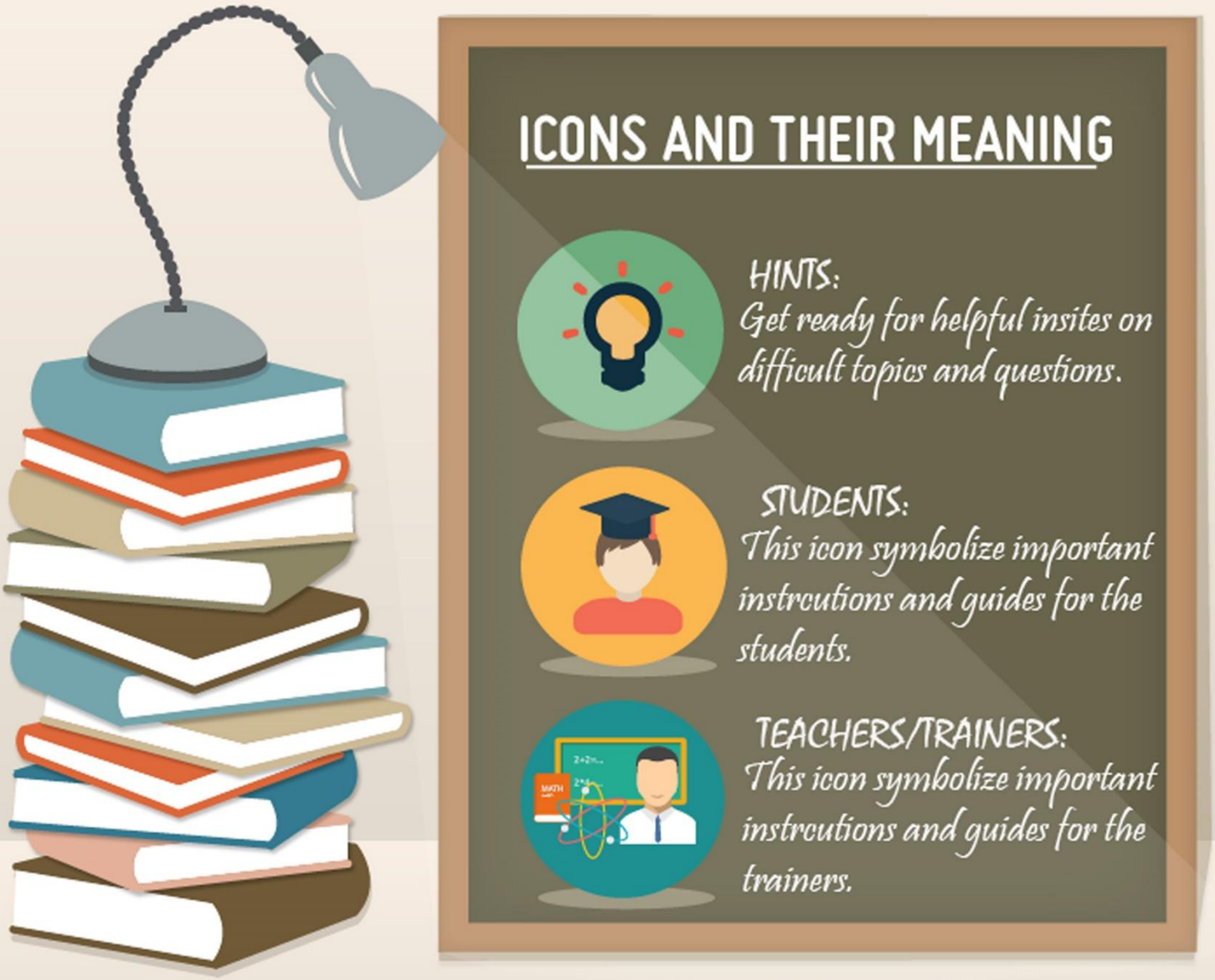
Full Stack Module-XI

Manual V8.3

ANUDIP FOUNDATION


ICONS AND THEIR MEANING
HINTS:
Get ready for helpful insites on difficult topics and questions.
STUDENTS:
This icon symbolize important instrcutions and guides for the students.
TEACHERS/TRAINERS:
This icon symbolize important instrcutions and guides for the trainers.

Total Duration: __ Hours

Lesson 01: PHP Errors, Debugging, and Configuration (120 minutes)

Objective: After completing this lesson you will be able to learn about : • Error types • Debugging functions • Exceptions	**Materials Required:** • Computer With Windows XP and above • Stable Internet connection
Self- Learning Duration: 120 minutes	**Practical Duration:** nil
Total Duration: 120 minutes	

PHP is a server side scripting language. It is one of the most popular languages for developing interactive and highly dynamic web pages. The language is available for free and a great alternative to the ever popular ASP.

PHP Errors

PHP errors can happen due to faults resulting from misjudgment, carelessness, or even forgetfulness.

There are basically 4 major types of errors in PHP:

1. Parse Error (Syntax Error)
2. Fatal Error
3. Warning Error
4. Notice Error

Parse Errors (syntax errors)

The parse error occurs if there is a syntax mistake in the script; the output is Parse errors. A parse error stops the execution of the script. There are many reasons for the occurrence of parse errors in PHP. The common reasons for parse errors are as follows:

Common reasons:

- Unclosed quotes
- Missing or Extra parentheses
- Unclosed braces
- Missing semicolon

Fatal Errors

Fatal errors are caused when PHP understands what you've written, however what you're asking it to do can't be done. Fatal errors stop the execution of the script. If you are trying to access the undefined functions, then the output is a fatal error.

Warning Errors

Warning errors will not stop execution of the script. The main reason for warning errors is to include a missing file or using the incorrect number of parameters in a function.

Notice Errors

Notice that an error is the same as a warning error i.e. in the notice error execution of the script does not stop. Notice that the error occurs when you try to access the undefined variable, then produce a notice error.

Debugging Functions

Debugging can be termed as a procedure to trace down errors in the program codes and then rectifying the same. However, PHP doesn't feature an in-built debugger. But that said, if you want to carry out basic level PHP debugging, there are a few functions available to handle the troubleshooting process.

The two most common debugging functions in PHP are var_dump() and print_r().

These functions can be used for checking the values.

- var_dump() shows the value and its type
- print_r() only shows the value.

These two come handy when you need to check arrays.

Exceptions

Exceptions are used to change the normal flow of a script if a specified error occurs.

With PHP 5 came a new object oriented way of dealing with errors. It is known as Exception Handling.

Exception handling is used to change the normal flow of the code execution if a specified error (exceptional) condition occurs. This condition is called an exception.

This is what normally happens when an exception is triggered:

- The current code state is saved
- The code execution will switch to a predefined (custom) exception handler function
- Depending on the situation, the handler may then resume the execution from the saved code state, terminate the script execution or continue the script from a different location in the code

The Basics of PHP exception handling

When an exception is thrown, the code following it will not be executed, and PHP will try to find the matching "catch" block.

If an exception is not caught, a fatal error will be issued with an "Uncaught Exception" message.

The features of a proper exception code

- try - A function using an exception should be in a "try" block. If the exception does not trigger, the code will continue as normal. However if the exception triggers, an exception is "thrown"
- throw - This is how you trigger an exception. Each "throw" must have at least one "catch"
- catch - A "catch" block retrieves an exception and creates an object containing the exception information

Reviewing the chapter

- PHP is a server side scripting language. It is one of the most popular languages for developing interactive and highly dynamic web pages
- PHP errors can happen due to faults resulting from misjudgment, carelessness, or even forgetfulness
- Debugging can be termed as a procedure to trace down errors in the program codes and then rectifying the same. However, PHP doesn't feature an in-built debugger
- Exceptions are used to change the normal flow of a script if a specified error occurs

Testing your skills

1. Each "throw" must have at least ___catch

a) 1, b) 2, c) 3, d) 4

2. _____ retrieves an exception and creates an object containing the exception information

a) Try, b) Throw, c) Catch, d) None of the above

3. _____ shows the value and its type

a) var_dump, b) print_r, c) Both (a) and (b), d) None of the above

4. Which of these errors will stop the execution of the script

a) Fatal, b) Parse, c) Both (a) and (b), d) None of the above

5. Which of these are associated with parse errors

a) Unclosed braces, b) Unclosed quotes, c) Missing semicolon, d) All of the above