

# PHP working with regular expressions

PHP web development 2019/2020

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# Definition and usage



# Definition and usage

A **regular expression**,

**regex** or

**regexp**<sup>1</sup>

is a sequence of characters that define a search pattern.



# Definition and usage

- telephone pattern: **+1 - (800)-555-2468**
- link pattern: **<http://foo.co.uk/>**
- date pattern: **14 – 07 – 2015**



# Definition and usage

## Usage

- "find" or "find and replace" operations on strings,
- input validation.

*Regular expressions are used in search engines, search and replace dialogs of word processors and text editors, in text processing utilities such as sed and AWK and in lexical analysis.*



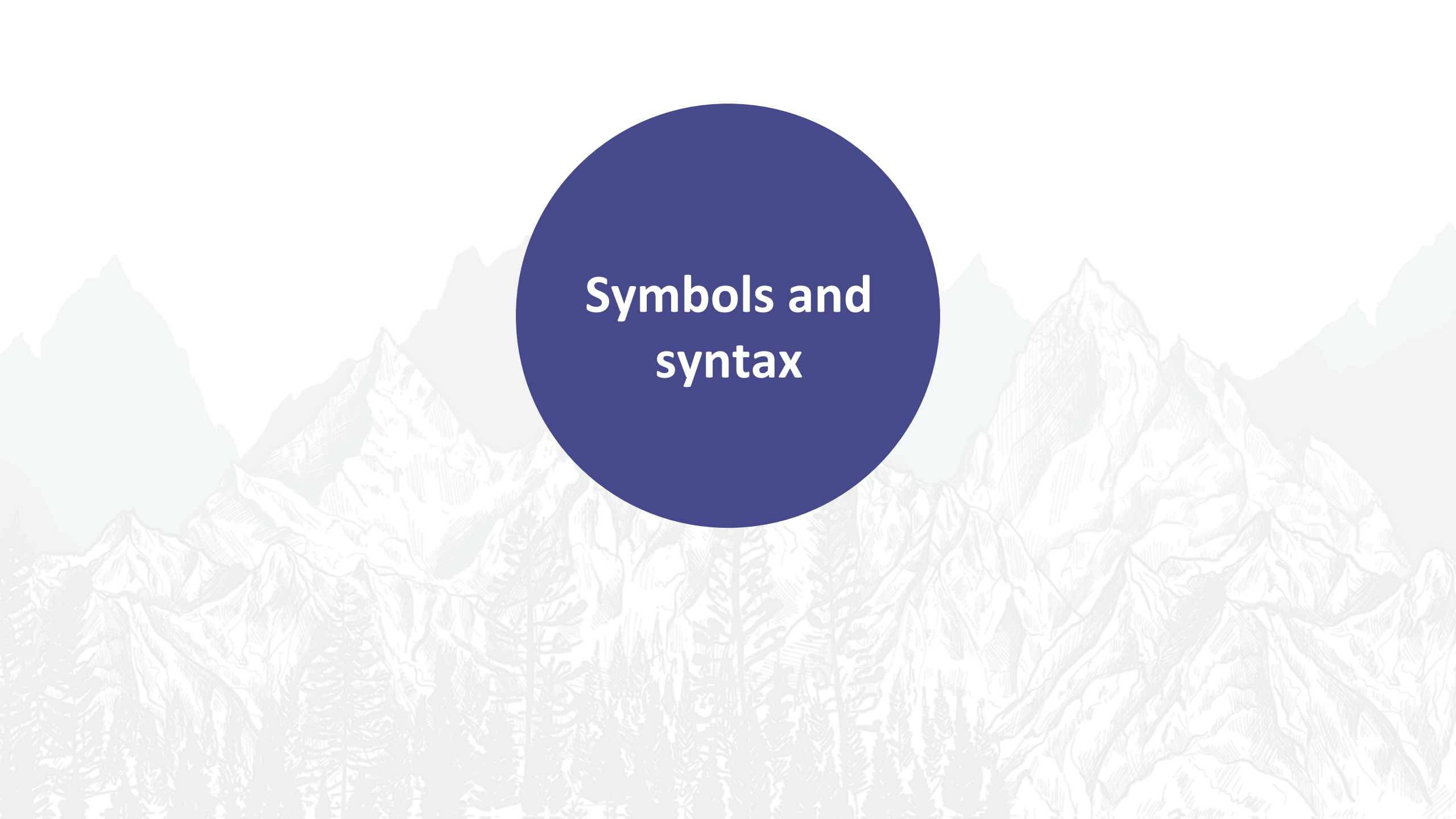


# Definition and usage

Many programming languages provide **regex** capabilities either built-in or via libraries.

Principles and techniques for building **regular expressions** are the same for all programming languages that use them.





# **Symbols and syntax**



# Symbols and syntax for bulduing regex

*Build patterns that only find matches they are intended to!*

Start  
End  
RegExr

Start **^L**

starts with L

End **B\$**

ends with B

# Symbols and syntax for bulduing regex

flags

RegExr

*Build patterns that only find matches they are intended to!*

**g** – global search

**i** – case-insensitive search

**m** – multiline search

# Symbols and syntax for bulduing regex

letters, digits

RegExr

*Build patterns that only find matches they are intended to!*

**.** – any symbol

**[bgi]** – look for the symbols specified in brackets

**[a-zA-Z]** – look for the symbol interval specified in brackets - all small and uppercase letters

**[0-9]** – all digits 0 to 9

**[^abc]** – all but the specified in brackets



# Symbols and syntax for bulduing regex

general symbols

RegExr

*Build patterns that only find matches they are intended to!*

**/s** – matches a single white space character, including space, tab, form feed, line feed

**/S** – matches a single character other than white space

**/d** – same as [0-9]

**/D** – еквивалентно с [^0-9]

**/w** – all letters - small and uppercase, digits and \_

**/W** – all but letters - small and uppercase, digits and

# Symbols and syntax for bulduing regex

symbol repeats

RegExr

*Build patterns that only find matches they are intended to!*

**+** - symbol repeats 1 or many times

**?** – symbol repeats 0 or 1 time

**|** - first **or** the second pattern

**{5}** – number of repeats - 5 times exactly

**{1, 5}** – number of repeats - from 1 to 5 times

# Symbols and syntax for bulduing regex

*Build patterns that only find matches they are intended to!*

grouping

RegExr

**use () to make a group for the pattern**



# Symbols and syntax for bulduing regex

grouping  
RegExr

*Build patterns that only find matches they are intended to!*

Task Make pattern that matches telephone numbers in the format

555.123.4567

The pattern is

`(([0-9] {3} \.)){2}([0-9] {4})`



# PHP regex functions

# PHP regex functions

**preg\_match()** - searches in string for match of the given pattern. Returns only the first match.

**preg\_match\_all()** – searches in string for match of the given pattern. Returns all matches.

**preg\_replace()** - searches and replaces in string matching given pattern

**preg\_split()** - splits a string according to given pattern





# Learn to Search in Internet

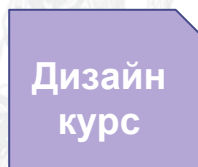
- The course assignments require to search in Internet
  - This is an important part of the learning process
  - Some exercises intentionally have no hints
- Learn to find solutions!
  - Software development includes everyday searching and learning
  - No excuses, just learn to study!
  - Developers learn new technologies, tools, languages every day!



# Questions?



Гнездото  
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