

Assignment - 28 - MACHINE LEARNING - 8

By Prakash Ghosh

Problem Statement: Find the frequency of words in a webpage.

- User can use urllib and BeautifulSoup to extract text from webpage.
- Hint:

```
from bs4 import BeautifulSoup
import urllib.request
import nltk
```

```
response = urllib.request.urlopen('http://php.net/ (http://php.net/)')
html = response.read()
soup = BeautifulSoup(html,"html5lib")
```

```
In [49]: # Import Libraries
import numpy as np
import pandas as pd

from bs4 import BeautifulSoup
import urllib.request
import nltk

from nltk.corpus import stopwords
from nltk.stem import PorterStemmer
import matplotlib.pyplot as plt
from subprocess import check_output
from wordcloud import WordCloud, STOPWORDS
```

Load Data

```
In [50]: response = urllib.request.urlopen('http://php.net/')
html = response.read()
soup = BeautifulSoup(html,"html5lib")
```

```
In [51]: text = soup.get_text(strip=True)
print (text)
```

PHP: Hypertext PreprocessorDownloadsDocumentationGet InvolvedHelpGetting StartedIntroductionA simple tutorialLanguage ReferenceBasic syntaxTypesVariablesConstantsExpressionsOperatorsControl StructuresFunctionsClasses and ObjectsNamespacesErrorsExceptionsGeneratorsReferences ExplainedPredefined VariablesPredefined ExceptionsPredefined Interfaces and ClassesContext options and parametersSupported Protocols and WrappersSecurityIntroductionGeneral considerationsInstalled as CGI binaryInstalled as an Apache moduleSession SecurityFilesystem SecurityDatabase SecurityError ReportingUsing Register GlobalsUser Submitted DataMagic QuotesHiding PHPKeeping CurrentFeaturesHTTP authentication with PHPCookiesSessionsDealing with XFormsHandling file uploadsUsing remote filesConnection handlingPersistent Database ConnectionsSafe ModeCommand line usageGarbage CollectionDTrace Dynamic TracingFunction ReferenceAffecting PHP's BehaviourAudio Formats ManipulationAuthentication ServicesCommand Line Specific ExtensionsCompression and Archive ExtensionsCredit Card ProcessingCryptography ExtensionsDatabase ExtensionsDate and Time Related ExtensionsFile System Related ExtensionsHuman Language and Character Encoding SupportImage Processing and GenerationMail Related ExtensionsMathematical ExtensionsNon-Text MIME OutputProcess Control ExtensionsOther Basic ExtensionsOther ServicesSearch Engine ExtensionsServer Specific ExtensionsSession ExtensionsText ProcessingVariable and Type Related ExtensionsWeb ServicesWindows Only ExtensionsXML ManipulationGUI ExtensionsKeyboard Shortcuts?This helpjNext menu itemkPrevious menu itemg pPrevious man pageg nNext man pagegScroll to bottomg gScroll to topg hGoto homepageg sGoto search(current page)/Focus search boxPHP is a popular general-purpose scripting language that is especially suited to web development.Fast, flexible and pragmatic, PHP powers everything from your blog to the most popular websites in the world.Download5.6.39·Release Notes·Upgrading 7.0.33·Release Notes·Upgrading7.1.25·Release Notes·Upgrading7.2.13·Release Notes·Upgrading7.3.0·Release Notes·Upgrading 06 Dec 2018PHP 7.0.33 ReleasedThe PHP development team announces the immediate availability of PHP

7.0.33. Five security-related issues were fixed in this release.

All PHP 7.0 users are encouraged to upgrade to this version.For source downloads of PHP 7.0.33 please visit ourdownloads page,

Windows source and binaries can be found onwindows.php.net/download/.

The list of changes is recorded in theChangeLog.Please note that according to thePHP version support timelines,

PHP 7.0.33 is the last scheduled release of PHP 7.0 branch. There may be additional release if we discover important security issues that warrant it, otherwise this release will be the final one in the PHP 7.0 branch.

If your PHP installation is based on PHP 7.0, it may be a good time to start making the plans for the upgrade

to PHP 7.1, PHP 7.2 or PHP 7.3.06 Dec 2018PHP 7.1.25 ReleasedThe PHP development team announces the immediate availability of PHP 7.1.25.

This is a security release.All PHP 7.1 users are encouraged to upgrade to this version.For source downloads of PHP 7.1.25 please visit ourdownloads page,

Windows source and binaries can be found onwindows.php.net/download/.

The list of changes is recorded in theChangeLog.06 Dec 2018PHP 7.2.13 ReleasedThe PHP development team announces the immediate availability of PHP 7.2.13.

This is a security release.All PHP 7.2 users are encouraged to upgrade to this version.For source downloads of PHP 7.2.13 please visit ourdownloads page,

Windows source and binaries can be found onwindows.php.net/download/.

The list of changes is recorded in theChangeLog.06 Dec 2018PHP 5.6.39 ReleasedThe PHP development team announces

the immediate availability of PHP

5.6.39. This is a security release. Several security bugs have been fixed in this release.

All PHP 5.6 users are encouraged to upgrade to this version. For source downloads of PHP 5.6.39 please visit our downloads page,

Windows source and binaries can be found on windows.php.net/download/.

The list of changes is recorded in the [ChangeLog](#). Please note that according to the PHP version support timelines,

PHP 5.6.39 is the last scheduled release of PHP 5.6 branch. There may be additional release if we discover

important security issues that warrant it, otherwise this release will be the final one in the PHP 5.6 branch.

If your PHP installation is based on PHP 5.6, it may be a good time to start making the plans for the upgrade

to PHP 7.1, PHP 7.2 or PHP 7.3.0. [06 Dec 2018 PHP 7.3.0 Released](#) The PHP development team announces the immediate availability of PHP 7.3.0.

This release marks the third feature update to the PHP 7 series. PHP 7.3.0 comes with numerous improvements and new features such as Flexible Heredoc and Nowdoc Syntax, PCRE2 Migration, Multiple MBString Improvements, LDAP Controls Support, Improved FPM Logging, Windows File Deletion Improvements, Several Deprecations. For source downloads of PHP 7.3.0 please visit our [download page](#).

Windows binaries can be found on the PHP for Windows site.

The list of changes is recorded in the [ChangeLog](#). The migration guide is available in the PHP Manual.

Please consult it for the detailed list of new features and backward incompatible changes. Many thanks to all the contributors and supporters! [22 Nov 2018 PHP 7.3.0RC6 Released](#) The PHP team is glad to announce the presumably last PHP 7.3.0 pre-release, PHP 7.3.0RC6.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0RC6 please visit the [download page](#).

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the [NEWS](#) file,

or the [UPGRADING](#) file for a complete list of upgrading notes. Internal changes are listed in the [UPGRADING](#).INTERNAL file.

These files can also be found in the release archive. The next release would be 7.3.0 (GA), planned for December 6th. The signatures for the release can be found in the manifest or on the QA site. Thank you for helping us make PHP better. [08 Nov 2018 PHP 7.1.24 Released](#) [PHP 7.1.24 Release Announcement](#) The PHP development team announces the immediate availability of PHP 7.1.24.

This is a bugfix release. All PHP 7.1 users are encouraged to upgrade to this version. For source downloads of PHP 7.1.24 please visit our [downloads page](#),

Windows source and binaries can be found on windows.php.net/download/.

The list of changes is recorded in the [ChangeLog](#). [08 Nov 2018 PHP 7.3.0RC5 Released](#) The PHP team is glad to announce the next PHP 7.3.0 pre-release, PHP 7.3.0RC5.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0 RC5 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the NEWS file,

or the UPGRADING file for a complete list of upgrading notes. Internal changes are listed in the UPGRADING. INTERNALS file.

These files can also be found in the release archive. The next release would be RC6, planned for November 22nd. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. 25 Oct 2018 PHP 7.3.0RC4 Released The PHP team is glad to announce the next PHP 7.3.0 pre-release, PHP 7.3.0RC4.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0 RC4 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the NEWS file,

or the UPGRADING file for a complete list of upgrading notes. Internal changes are listed in the UPGRADING. INTERNALS file.

These files can also be found in the release archive. The next release would be RC5, planned for November 8th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. 1 Oct 2018 PHP 7.3.0RC3 Released The PHP team is glad to announce the next PHP 7.3.0 pre-release, PHP 7.3.0RC3.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0 RC3 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the NEWS file,

or the UPGRADING file for a complete list of upgrading notes. Internal changes are listed in the UPGRADING. INTERNALS file.

These files can also be found in the release archive. The next release would be RC4, planned for October 25th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. 8 Sep 2018 PHP 7.3.0RC2 Released The PHP team is glad to announce the next PHP 7.3.0 pre-release, PHP 7.3.0RC2.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0 RC2 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the NEWS file,

or the UPGRADING file for a complete list of upgrading notes. Internal changes are listed in the UPGRADING. INTERNALS file.

These files can also be found in the release archive. The next release would be RC3, planned for October 11th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. 3 Sep 2018 PHP 7.3.0RC1 Released The PHP team is glad to announce the release of the next PHP 7.3.0 pre-release, PHP 7.3.0RC1.

The rough outline of the PHP 7.3 release cycle is specified in the PHP Wiki. For source downloads of PHP 7.3.0 RC1 please visit the download page.

C1 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the [NEWSfile](#),

or the [UPGRADINGfile](#) for a complete list of upgrading notes. Internal changes are listed in the [UPGRADING.INTERNALENSfile](#).

These files can also be found in the release archive. The next release would be RC2, planned for September 27th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. [r.30 Aug 2018 PHP 7.3.0.beta3 Released](#) The PHP team is glad to announce the release of the seventh PHP 7.3.0 version, PHP 7.3.0beta3.

The rough outline of the PHP 7.3 release cycle is specified in the [PHP Wiki](#). For source downloads of PHP 7.3.0beta3 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the [NEWSfile](#),

or the [UPGRADINGfile](#) for a complete list of upgrading notes. Internal changes are listed in the [UPGRADING.INTERNALENSfile](#).

These files can also be found in the release archive. The next release would be RC1, planned for September 13th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. [r.16 Aug 2018 PHP 7.3.0.beta2 Released](#) The PHP team is glad to announce the release of the sixth PHP 7.3.0 version, PHP 7.3.0beta2.

The rough outline of the PHP 7.3 release cycle is specified in the [PHP Wiki](#). For source downloads of PHP 7.3.0beta2 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the [NEWSfile](#),

or the [UPGRADINGfile](#) for a complete list of upgrading notes. Internal changes are listed in the [UPGRADING.INTERNALENSfile](#).

These files can also be found in the release archive. The next release would be Beta 3, planned for August 30th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. [r.02 Aug 2018 PHP 7.3.0.beta1 Released](#) The PHP team is glad to announce the release of the fifth PHP 7.3.0 version, PHP 7.3.0beta1.

The rough outline of the PHP 7.3 release cycle is specified in the [PHP Wiki](#). For source downloads of PHP 7.3.0beta1 please visit the download page.

Windows sources and binaries can be found on windows.php.net/qa/. Please carefully test this version and report any issues found in the bug reporting system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read the [NEWSfile](#),

or the [UPGRADINGfile](#) for a complete list of upgrading notes. These files can also be found in the release archive. The next release would be Beta 2, planned for August 16th. The signatures for the release can be found in the manifest on the QA site. Thank you for helping us make PHP better. [19 Jul 2018 PHP 7.3.0alpha4 Released](#) The PHP team is glad to announce the release of the fourth PHP 7.3.0 version, PHP 7.3.0alpha4.

The rough outline of the PHP 7.3 release cycle is specified in the [PHP Wiki](#). For source downloads of PHP 7.3.0alpha4 please visit the download page.

lpha4 please visit thedownload page.

Windows sources and binaries can be found onwindows.php.net/qa/.Please carefully test this version and report any issues found in thebug reporting system.THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION!For more information on the new features and other changes, you can read theNEWSfile,

or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive.The next release would be Beta 1, planned for August 2nd.The signatures for the release can be found inthe manifest onthe QA site.Thank you for helping us make PHP better.05 Jul 2018PHP 7.3.0 alpha 3 ReleasedThe PHP team is glad to announce the release of the third PHP 7.3.0 version, PHP 7.3.0 Alpha 3.

The rough outline of the PHP 7.3 release cycle is specified in thePHP Wiki.For source downloads of PHP 7.3.0 Alpha 3 please visit thedownload page.

Windows sources and binaries can be found onwindows.php.net/qa/.Please carefully test this version and report any issues found in thebug reporting system.THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION!For more information on the new features and other changes, you can read theNEWSfile,

or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive.The next release would be Beta 1, planned for July 19th.The signatures for the release can be found inthe manifest onthe QA site.Thank you for helping us make PHP better.21 Jun 2018PHP 7.3.0 alpha 2 ReleasedThe PHP team is glad to announce the release of the second PHP 7.3.0 version, PHP 7.3.0 Alpha 2.

The rough outline of the PHP 7.3 release cycle is specified in thePHP Wiki.For source downloads of PHP 7.3.0 Alpha 2 please visit thedownload page.

Windows sources and binaries can be found onwindows.php.net/qa/.Please carefully test this version and report any issues found in thebug reporting system.THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION!For more information on the new features and other changes, you can read theNEWSfile,

or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive.The next release would be Alpha 3, planned for July 5.The signatures for the release can be found inthe manifest onthe QA site.Thank you for helping us make PHP better.07 Jun 2018PHP 7.3.0 alpha 1 ReleasedPHP team is glad to announce the release of the first PHP 7.3.0 version, PHP 7.3.0 Alpha 1.

This starts the PHP 7.3 release cycle, the rough outline of which is specified in thePHP Wiki.For source downloads of PHP 7.3.0 Alpha 1 please visit thedownload page.Please carefully test this version and report any issues found in thebug reporting system.Please DO NOT use this version in production, it is an early test version.For more information on the new features and other changes, you can read theNEWSfile,

or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive.The next release would be Alpha 2, planned for June 21.The signatures for the release can be found inthe manifest onthe QA site.Thank you for helping us make PHP better.01 Feb 2018PHP 7.2.2 ReleasedThe PHP development team announces the immediate availability of PHP

7.2.2. This is a bugfix release, with several bug fixes included.All PHP 7.2 users are encouraged to upgrade to this version.For source downloads of PHP 7.2.2 please visit ourdownloads page,

Windows source and binaries can be found onwindows.php.net/download/.

The list of changes is recorded in theChangeLog.12 Oct 2017PHP 7.2.0 Release Candidate 4 ReleasedThe PHP development team announces the immediate availability of PHP 7.2.0 RC4.

This release is the fourth Release Candidate for 7.2.0.

All users of PHP are encouraged to test this version carefully, and report any bugs

and incompatibilities in thebug tracking system.THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION!For

more information on the new features and other changes, you can read theNEWSfile, or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive. For source downloads of PHP 7.2.0 Release Candidate 4 please visit thedownloadpage, Windows sources and binaries can be found atwindows.php.net/qa/. The next Release Candidate will be announced on the 26th of October.

You can also read the full list of planned releases on our wiki. Thank you for helping us make PHP better. 28 Sep 2017 PHP 7.2.0 Release Candidate 3 Released The PHP development team announces the immediate availability of PHP 7.2.0 RC3.

This release is the third Release Candidate for 7.2.0. All users of PHP are encouraged to test this version carefully, and report any bugs and incompatibilities in the bug tracking system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read theNEWSfile, or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive. For source downloads of PHP 7.2.0 Release Candidate 3 please visit thedownloadpage, Windows sources and binaries can be found atwindows.php.net/qa/. The next Release Candidate will be announced on the 12th of October.

You can also read the full list of planned releases on our wiki. Thank you for helping us make PHP better. 31 Aug 2017 PHP 7.2.0 Release Candidate 1 Released The PHP development team announces the immediate availability of PHP 7.2.0 RC1.

Candidate 1. This release is the first Release Candidate for 7.2.0. All users of PHP are encouraged to test this version carefully, and report any bugs and incompatibilities in the bug tracking system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read theNEWSfile, or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive. For source downloads of PHP 7.2.0 Release Candidate 1 please visit thedownloadpage, Windows sources and binaries can be found atwindows.php.net/qa/. The second Release Candidate will be released on the 14th of September.

You can also read the full list of planned releases on our wiki. Thank you for helping us make PHP better. 17 Aug 2017 PHP 7.2.0 Beta 3 Released The PHP development team announces the immediate availability of PHP 7.2.0 Beta 3.

This release is the third and final beta for 7.2.0. All users of PHP are encouraged to test this version carefully, and report any bugs and incompatibilities in the bug tracking system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION! For more information on the new features and other changes, you can read theNEWSfile,

or theUPGRADINGfile for a complete list of upgrading notes. These files can also be found in the release archive. For source downloads of PHP 7.2.0 Beta 3 please visit thedownloadpage, Windows sources and binaries can be found atwindows.php.net/qa/. The first Release Candidate will be released on the 31st of August.

You can also read the full list of planned releases on our wiki. Thank you for helping us make PHP better. 06 Jul 2017 PHP 7.2.0 Alpha 3 Released The PHP development team announces the immediate availability of PHP 7.2.0 Alpha 3.

This release contains fixes and improvements relative to Alpha 2. All users of PHP are encouraged to test this version carefully, and report any bugs and incompatibilities in the bug tracking system. THIS IS A DEVELOPMENT PREVIEW - DO NOT USE IT IN PRODUCTION!

T IN PRODUCTION! For information on new features and other changes, you can read the [NEWS](#) file, or the [UPGRADING](#) file

for a complete list of upgrading notes. These files can also be found in the release archive. For source download s of PHP 7.2.0 Alpha 3 please visit the [download](#) page,

Windows sources and binaries can be found on [windows.php.net/qa/](#). The first beta will be released on the 20th of July. You can also read the full list of planned releases on [ourwiki](#). Thank you for helping us make PHP better. Older Ne ws Entries Upcoming conferences Sunshine PHP 2019 Dutch PHP Conference 2019 International PHP Conference 2019 - Spring Edition Conferences calling for papers PHPKonf Istanbul PHP Conference 2019 Dutch PHP Conference - CfP is open! User Group Events Special Thanks Social media @ [official_php](#) Copyright © 2001-2018 The PHP Group My PHP.net Contact Other PHP.net sites Mirror sites Privacy policy

Analyze Data

```
In [52]: # Convert the text into tokens
tokens = [t for t in text.split()]

# Print token
print (tokens)
```

['PHP:', 'Hypertext', 'PreprocessorDownloadsDocumentationGet', 'InvolvedHelpGetting', 'StartedIntroductionA', 'simple', 'tutorialLanguage', 'ReferenceBasic', 'syntaxTypesVariablesConstantsExpressionsOperatorsControl', 'StructuresFunctionsClasses', 'and', 'ObjectsNamespacesErrorsExceptionsGeneratorsReferences', 'ExplainedPredefined', 'VariablesPredefined', 'ExceptionsPredefined', 'Interfaces', 'and', 'ClassesContext', 'options', 'and', 'parametersSupported', 'Protocols', 'and', 'WrappersSecurityIntroductionGeneral', 'considerationsInstalled', 'as', 'CGI', 'binaryInstalled', 'as', 'an', 'Apache', 'moduleSession', 'SecurityFilesystem', 'SecurityDatabase', 'SecurityError', 'ReportingUsing', 'Register', 'GlobalsUser', 'Submitted', 'DataMagic', 'QuotesHiding', 'PHPKeeping', 'CurrentFeaturesHTTP', 'authentication', 'with', 'PHPCookiesSessionsDealing', 'with', 'XFormsHandling', 'file', 'uploadsUsing', 'remote', 'filesConnection', 'handlingPersistent', 'Database', 'ConnectionsSafe', 'ModeCommand', 'line', 'usageGarbage', 'CollectionDTrace', 'Dynamic', 'TracingFunction', 'ReferenceAffecting', "PHP's", 'BehaviourAudio', 'Formats', 'ManipulationAuthentication', 'ServicesCommand', 'Line', 'Specific', 'ExtensionsCompression', 'and', 'Archive', 'ExtensionsCredit', 'Card', 'ProcessingCryptography', 'ExtensionsDatabase', 'ExtensionsDate', 'and', 'Time', 'Related', 'ExtensionsFile', 'System', 'Related', 'ExtensionsHuman', 'Language', 'and', 'Character', 'Encoding', 'SupportImage', 'Processing', 'and', 'GenerationMail', 'Related', 'ExtensionsMathematical', 'ExtensionsNon-Text', 'MIME', 'OutputProcess', 'Control', 'ExtensionsOther', 'Basic', 'ExtensionsOther', 'ServicesSearch', 'Engine', 'ExtensionsServer', 'Specific', 'ExtensionsSession', 'ExtensionsText', 'ProcessingVariable', 'and', 'Type', 'Related', 'ExtensionsWeb', 'ServicesWindows', 'Only', 'ExtensionsXML', 'ManipulationGUI', 'ExtensionsKeyboard', 'Shortcuts?This', 'helpjNext', 'menu', 'itemkPrevious', 'menu', 'itemg', 'pPrevious', 'man', 'pageg', 'nNext', 'man', 'pageGScroll', 'to', 'bottommg', 'gScroll', 'to', 'topg', 'hGoto', 'homepageg', 'sGoto', 'search(current', 'page)/Focus', 'search', 'boxPHP', 'is', 'a', 'popular', 'general-purpose', 'scripting', 'language', 'that', 'is', 'especially', 'suited', 'to', 'web', 'development.Fast,', 'flexible', 'and', 'pragmatic,', 'PHP', 'powers', 'everything', 'from', 'your', 'blog', 'to', 'the', 'most', 'popular', 'websites', 'in', 'the', 'world.Download5.6.39.Release', 'Notes.Upgrading7.0.33.Release', 'Notes.Upgrading7.1.25.Release', 'Notes.Upgrading7.2.13.Release', 'Notes.Upgrading7.3.0.Release', 'Notes.Upgrading06', 'Dec', '2018PHP', '7.0.33', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.0.33.', 'Five', 'security-related', 'issues', 'were', 'fixed', 'in', 'this', 'release.', 'All', 'PHP', '7.0', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '7.0.33', 'please', 'visit', 'ourdownloads', 'page', 'Windows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.Please', 'note', 'that', 'according', 'to', 'thePHP', 'version', 'support', 'timelines,', 'PHP', '7.0.33', 'is', 'the', 'last', 'scheduled', 'release', 'of', 'PHP', '7.0', 'branch.', 'There', 'may', 'be', 'additional', 'release', 'if', 'we', 'discover', 'important', 'security', 'issues', 'that', 'warrant', 'it', 'otherwise', 'this', 'release', 'will', 'be', 'the', 'final', 'one', 'in', 'the', 'PHP', '7.0', 'branch.', 'If', 'your', 'PHP', 'installation', 'is', 'based', 'on', 'PHP', '7.0', 'it', 'may', 'be', 'a', 'good', 'time', 'to', 'start', 'making', 'the', 'plans', 'for', 'the', 'upgrade', 'to', 'PHP', '7.1', 'PHP', '7.2', 'or', 'PHP', '7.3.06', 'Dec', '2018PHP', '7.1.25', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.1.25.', 'This', 'is', 'a', 'security', 'release.All', 'PHP', '7.1', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '7.1.25', 'please', 'visit', 'ourdownloads', 'page', 'Windows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.06', 'Dec', '2018PHP', '7.2.13', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.13.', 'This', 'is', 'a', 'security', 'release.All', 'PHP', '7.2', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '7.2.13', 'please', 'visit', 'ourdownload

s', 'page', 'Windows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.06', 'Dec', '2018PHP', '5.6.39', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '5.6.39.', 'This', 'is', 'a', 'security', 'release.', 'Several', 'security', 'bugs', 'have', 'been', 'fixed', 'in', 'this', 'release.', 'All', 'PHP', '5.6', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '5.6.39', 'please', 'visit', 'ourdownloads', 'page', 'Windows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.Please', 'note', 'that', 'according', 'to', 'thePHP', 'version', 'support', 'timelines', 'PHP', '5.6.39', 'is', 'the', 'last', 'scheduled', 'release', 'of', 'PHP', '5.6', 'branch.', 'There', 'may', 'be', 'additional', 'release', 'if', 'we', 'discover', 'important', 'security', 'issues', 'that', 'warrant', 'it', 'otherwise', 'this', 'release', 'will', 'be', 'the', 'final', 'one', 'in', 'the', 'PHP', '5.6', 'branch.', 'If', 'your', 'PHP', 'installation', 'is', 'based', 'on', 'PHP', '5.6', 'it', 'may', 'be', 'a', 'good', 'time', 'to', 'start', 'making', 'the', 'plans', 'for', 'the', 'upgrade', 'to', 'PHP', '7.1', 'PHP', '7.2', 'or', 'PHP', '7.3.06', 'Dec', '2018PHP', '7.3.0', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.3.0.', 'This', 'release', 'marks', 'the', 'third', 'feature', 'update', 'to', 'the', 'PHP', '7', 'series.PHP', '7.3.0', 'comes', 'with', 'numerous', 'improvements', 'and', 'new', 'features', 'such', 'asFlexible', 'Heredoc', 'and', 'Nowdoc', 'SyntaxPCRE2', 'MigrationMultiple', 'MBString', 'ImprovementsLDAP', 'Controls', 'SupportImproved', 'FPM', 'LoggingWindows', 'File', 'Deletion', 'ImprovementsSeveral', 'DeprecationsFor', 'source', 'downloads', 'of', 'PHP', '7.3.0', 'please', 'visit', 'ourdownloadspage', 'Windows', 'binaries', 'can', 'be', 'found', 'on', 'thePHP', 'for', 'Windowssite.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.Themigration', 'guideis', 'available', 'in', 'the', 'PHP', 'Manual', 'Please', 'consult', 'it', 'for', 'the', 'detailed', 'list', 'of', 'new', 'features', 'and', 'backward', 'incompatible', 'changes.Many', 'thanks', 'to', 'all', 'the', 'contributors', 'and', 'supporters!22', 'Nov', '2018PHP', '7.3.0RC6', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'presumably', 'last', 'PHP', '7.3.0', 'pre-release', 'PHP', '7.3.0RC6.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0RC6', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'Internal', 'changes', 'are', 'listed', 'in', 'theUPGRADING.INTERNALfile.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', '7.3.0', '(GA)', 'planned', 'for', 'December', '6th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.08', 'Nov', '2018PHP', '7.1.24', 'ReleasedPHP', '7.1.24', 'Release', 'AnnouncementThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.1.24.', 'This', 'is', 'a', 'bugfix', 'release.All', 'PHP', '7.1', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '7.1.24', 'please', 'visit', 'ourdownloads', 'page', 'Windows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'changes', 'is', 'recorded', 'in', 'theChangeLog.08', 'Nov', '2018PHP', '7.3.0RC5', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'next', 'PHP', '7.3.0', 'pre-release', 'PHP', '7.3.0RC5.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0RC5', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwin

dows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 't hebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUC TION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'Internal', 'c hanges', 'are', 'listed', 'in', 'theUPGRADING.INTERNALfile.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'RC6,', 'planned', 'for', 'November', '22nd.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'yo u', 'for', 'helping', 'us', 'make', 'PHP', 'better.25', 'Oct', '2018PHP', '7.3.0RC4', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'next', 'PHP', '7.3.0', 'pre-release', 'PHP', '7.3.0RC4.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'down loads', 'of', 'PHP', '7.3.0RC4', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'change s', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgradin g', 'notes.', 'Internal', 'changes', 'are', 'listed', 'in', 'theUPGRADING.INTERNALfile.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'RC5,', 'planned', 'for', 'November', '8th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.11', 'Oct', '2018PHP', '7.3.0RC3', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'next', 'PHP', '7.3.0', 'pre-release', 'PHP', '7.3.0RC3.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0RC3', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'Internal', 'changes', 'are', 'listed', 'in', 'theUPGRADING.INTERNALfile.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'RC4,', 'planned', 'for', 'October', '25th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'in', 'the', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.28', 'Sep', '2018PHP', '7.3.0RC2', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'next', 'PHP', '7.3.0', 'pre-release', 'PHP', '7.3.0RC2.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0RC2', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefull y', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'Internal', 'changes', 'are', 'listed', 'in', 'theUPGRADING.INTERNALfile.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'RC3,', 'planned', 'for', 'October', '11th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.13', 'Sep', '2018PHP', '7.3.0RC1', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the',

d', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'Beta', '2', 'planned', 'for', 'August', '16th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.19', 'Jul', '2018PHP', '7.3.0alpha4', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'release', 'of', 'the', 'fourth', 'PHP', '7.3.0', 'version', 'PHP', '7.3.0alpha4.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0alpha4', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'Beta', '1', 'planned', 'for', 'August', '2nd.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.05', 'Jul', '2018PHP', '7.3.0', 'alpha', '3', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'release', 'of', 'the', 'third', 'PHP', '7.3.0', 'version', 'PHP', '7.3.0', 'Alpha', '3.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0', 'Alpha', '3', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'Beta', '1', 'planned', 'for', 'July', '19th.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.21', 'Jun', '2018PHP', '7.3.0', 'alpha', '2', 'ReleasedThe', 'PHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'release', 'of', 'the', 'second', 'PHP', '7.3.0', 'version', 'PHP', '7.3.0', 'Alpha', '2.', 'The', 'rough', 'outline', 'of', 'the', 'PHP', '7.3', 'release', 'cycle', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0', 'Alpha', '2', 'please', 'visit', 'thedownload', 'page.', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.The', 'next', 'release', 'would', 'be', 'Alpha', '3', 'planned', 'for', 'July', '5.The', 'signatures', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.07', 'Jun', '2018PHP', '7.3.0', 'alpha', '1', 'ReleasedPHP', 'team', 'is', 'glad', 'to', 'announce', 'the', 'release', 'of', 'the', 'first', 'PHP', '7.3.0', 'version', 'PHP', '7.3.0', 'Alpha', '1.', 'This', 'starts', 'the', 'PHP', '7.3', 'release', 'cycle', 'the', 'rough', 'outline', 'of', 'which', 'is', 'specified', 'in', 'thePHP', 'Wiki.For', 'source', 'downloads', 'of', 'PHP', '7.3.0', 'Alpha', '1', 'please', 'visit', 'thedownload', 'page.Please', 'carefully', 'test', 'this', 'version', 'and', 'report', 'any', 'issues', 'found', 'in', 'thebug', 'reporting', 'system.Please', 'DO', 'NOT', 'use', 'this', 'version', 'in', 'production', 'it', 'is', 'an', 'early', 'test', 'version.For', 'more', 'information', 'on', 'the', 'n

ew', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'r elease', 'archive.The', 'next', 'release', 'would', 'be', 'Alpha', '2,', 'planned', 'for', 'June', '21.The', 'signatu res', 'for', 'the', 'release', 'can', 'be', 'found', 'inthe', 'manifestor', 'onthe', 'QA', 'site.Thank', 'you', 'fo r', 'helping', 'us', 'make', 'PHP', 'better.01', 'Feb', '2018PHP', '7.2.2', 'ReleasedThe', 'PHP', 'development', 'tea m', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.2.', 'This', 'is', 'a', 'bugfix', 'release', 'with', 'several', 'bug', 'fixes', 'included.All', 'PHP', '7.2', 'users', 'are', 'encouraged', 'to', 'upgrade', 'to', 'this', 'version.For', 'source', 'downloads', 'of', 'PHP', '7.2.2', 'please', 'visit', 'ourdownloads', 'page', 'Wind ows', 'source', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/download/.', 'The', 'list', 'of', 'change s', 'is', 'recorded', 'in', 'theChangeLog.12', 'Oct', '2017PHP', '7.2.0', 'Release', 'Candidate', '4', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.0', 'RC4.', 'This', 'release', 'is', 'the', 'fourth', 'Release', 'Candidate', 'for', '7.2.0.', 'All', 'users', 'of', 'PHP', 'are', 'encou raged', 'to', 'test', 'this', 'version', 'carefully,', 'and', 'report', 'any', 'bugs', 'and', 'incompatibilities', 'i n', 'thebug', 'tracking', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '–', 'DO', 'NOT', 'USE', 'IT', 'IN', 'P RODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'rea d', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.For', 'source', 'downloads', 'of', 'PHP', '7. 2.0', 'Release', 'Candidate', '4', 'please', 'visit', 'thedownloadpage', 'Windows', 'sources', 'and', 'binaries', 'c an', 'be', 'found', 'atwindows.php.net/qa/.The', 'next', 'Release', 'Candidate', 'will', 'be', 'announced', 'on', 'th e', '26th', 'of', 'October.', 'You', 'can', 'also', 'read', 'the', 'full', 'list', 'of', 'planned', 'releases', 'onou r', 'wiki.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.28', 'Sep', '2017PHP', '7.2.0', 'Release', 'C andidate', '3', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.0', 'RC3.', 'This', 'release', 'is', 'the', 'third', 'Release', 'Candidate', 'for', '7.2.0.', 'All', 'use rs', 'of', 'PHP', 'are', 'encouraged', 'to', 'test', 'this', 'version', 'carefully,', 'and', 'report', 'any', 'bugs', 'and', 'incompatibilities', 'in', 'thebug', 'tracking', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '–', 'D O', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'othe r', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.For', 'sourc e', 'downloads', 'of', 'PHP', '7.2.0', 'Release', 'Candidate', '3', 'please', 'visit', 'thedownloadpage', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'atwindows.php.net/qa/.The', 'next', 'Release', 'Candidate', 'wil l', 'be', 'announced', 'on', 'the', '12th', 'of', 'October.', 'You', 'can', 'also', 'read', 'the', 'full', 'list', 'of', 'planned', 'releases', 'onour', 'wiki.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.31', 'Aug', '2017PHP', '7.2.0', 'Release', 'Candidate', '1', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'im mediate', 'availability', 'of', 'PHP', '7.2.0', 'Release', 'Candidate', '1.', 'This', 'release', 'is', 'the', 'firs t', 'Release', 'Candidate', 'for', '7.2.0.', 'All', 'users', 'of', 'PHP', 'are', 'encouraged', 'to', 'test', 'this', 'version', 'carefully,', 'and', 'report', 'any', 'bugs', 'and', 'incompatibilities', 'in', 'thebug', 'tracking', 'sys tem.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '–', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'infor mation', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'the UPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.For', 'source', 'downloads', 'of', 'PHP', '7.2.0', 'Release', 'Candidate', '1', 'please', 'visit', 'thedownloadpage', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'atwindow s.php.net/qa/.The', 'second', 'Release', 'Candidate', 'will', 'be', 'released', 'on', 'the', '14th', 'of', 'Septembe

r.', 'You', 'can', 'also', 'read', 'the', 'full', 'list', 'of', 'planned', 'releases', 'onour', 'wiki.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.17', 'Aug', '2017PHP', '7.2.0', 'Beta', '3', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.0', 'Beta', '3.', 'This', 'release', 'is', 'the', 'third', 'and', 'final', 'beta', 'for', '7.2.0.', 'All', 'users', 'of', 'PHP', 'are', 'encourage', 'to', 'test', 'this', 'version', 'carefully', 'and', 'report', 'any', 'bugs', 'and', 'incompatibilities', 'in', 'thebug', 'tracking', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'more', 'information', 'on', 'the', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.For', 'source', 'downloads', 'of', 'PHP', '7.2.0', 'Beta', '3', 'please', 'visit', 'thedownloadpage', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.The', 'first', 'Release', 'Candidate', 'will', 'be', 'released', 'on', 'the', '31th', 'of', 'August.', 'You', 'can', 'also', 'read', 'the', 'full', 'list', 'of', 'planned', 'releases', 'onour', 'wiki.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.06', 'Jul', '2017PHP', '7.2.0', 'Alpha', '3', 'ReleasedThe', 'PHP', 'development', 'team', 'announces', 'the', 'immediate', 'availability', 'of', 'PHP', '7.2.0', 'Alpha', '3.', 'This', 'release', 'contains', 'fixes', 'and', 'improvements', 'relative', 'to', 'Alpha', '2.', 'All', 'users', 'of', 'PHP', 'are', 'encouraged', 'to', 'test', 'this', 'version', 'carefully', 'and', 'report', 'any', 'bugs', 'and', 'incompatibilities', 'in', 'thebug', 'tracking', 'system.THIS', 'IS', 'A', 'DEVELOPMENT', 'PREVIEW', '-', 'DO', 'NOT', 'USE', 'IT', 'IN', 'PRODUCTION!For', 'information', 'on', 'new', 'features', 'and', 'other', 'changes', 'you', 'can', 'read', 'theNEWSfile', 'or', 'theUPGRADINGfile', 'for', 'a', 'complete', 'list', 'of', 'upgrading', 'notes.', 'These', 'files', 'can', 'also', 'be', 'found', 'in', 'the', 'release', 'archive.For', 'source', 'downloads', 'of', 'PHP', '7.2.0', 'Alpha', '3', 'please', 'visit', 'thedownloadpage', 'Windows', 'sources', 'and', 'binaries', 'can', 'be', 'found', 'onwindows.php.net/qa/.The', 'first', 'beta', 'will', 'be', 'released', 'on', 'the', '20th', 'of', 'July.', 'You', 'can', 'also', 'read', 'the', 'full', 'list', 'of', 'planned', 'releases', 'on', 'ourwiki.Thank', 'you', 'for', 'helping', 'us', 'make', 'PHP', 'better.Older', 'News', 'EntriesUpcoming', 'conferencesSunshinePHP', '2019Dutch', 'PHP', 'Conference', '2019International', 'PHP', 'Conference', '2019', '-', 'Spring', 'EditionConferences', 'calling', 'for', 'papersPHPKonf', 'Istanbul', 'PHP', 'Conference', '2019Dutch', 'PHP', 'Conference', '-', 'CfP', 'is', 'openUser', 'Group', 'EventsSpecial', 'ThanksSocial', 'media@official_phpCopyright', '©', '2001-2018', 'The', 'PHP', 'GroupMy', 'PHP.netContactOther', 'PHP.net', 'sitesMirror', 'sitesPrivacy', 'policy']

```
In [53]: # Now calculate the frequency distribution of the tokens
frequency_token = nltk.FreqDist(tokens)

# Print frequency of all tokens
for key, val in frequency_token.items():
    print (str(key) + ':' + str(val))
```

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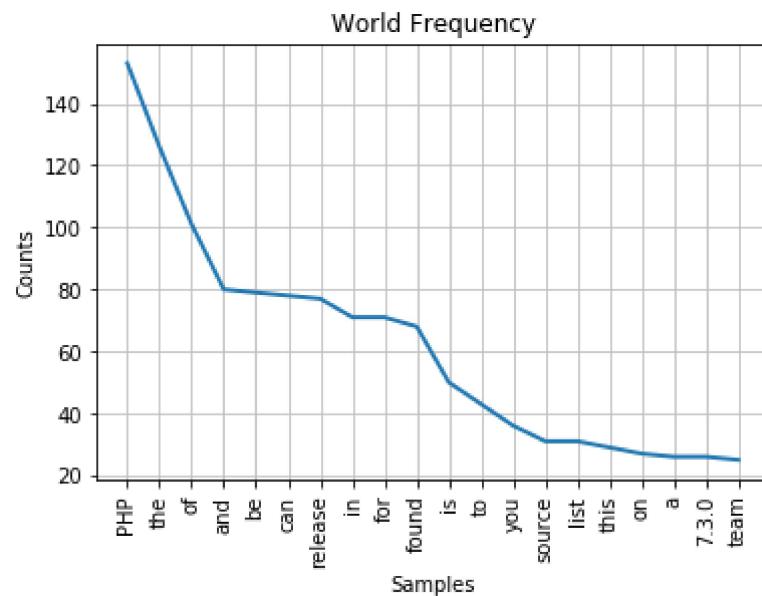
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Conference:4
2019International:1
2019:1
Spring:1
EditionConferences:1
calling:1
papersPHPKonf:1
Istanbul:1
CfP:1
open!User:1
Group:1
EventsSpecial:1
ThanksSocial:1
media@official_phpCopyright:1
@:1
2001-2018:1
GroupMy:1
PHP.netContactOther:1
PHP.net:1
sitesMirror:1
sitesPrivacy:1
policy:1

```
In [54]: # Print frequency of all tokens having frequency >20
for key, val in frequency_token.items():
    if val>20:
        print (str(key) + ':' + str(val))
```

and:80
to:43
is:50
a:26
PHP:153
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in:71
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team:25
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be:79
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list:31
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release:77
on:27
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7.3.0:26
you:36
read:23
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```
In [55]: # Plot a graph with the frequent words i.e. Frequency>20
frequency_token.plot(20, cumulative=False, title='Word Frequency')
```

**Note:**

The graph includes all the words including article, Grammer etc.

In the next analysis we will remove those stop words

```
In [56]: # From wordcloud lib get the standard list of the Stop Words
stopwords = set(STOPWORDS)
```

```
In [57]: # Create Word Cloud
wordcloud = WordCloud(background_color='white',
                      stopwords=stopwords,
                      max_words=20,
                      max_font_size=30,
                      random_state=1
                     ).generate(str(df['word']))

# Print the Plot
print(wordcloud)
fig = plt.figure(1)
plt.imshow(wordcloud)
plt.axis('off')
plt.show()
fig.savefig("wordcloud1.png", dpi=1000)
```

```
<wordcloud.wordcloud.WordCloud object at 0x00000230E7B0D9B0>
```



Process Data

```
In [58]: # Create a dataframe with the words and their frequency
df=pd.DataFrame()
df['word']=frequency_token.keys()
df['count']=frequency_token.values()
df.head(5)
```

Out[58]:

	word	count
0	PHP:	1
1	Hypertext	1
2	PreprocessorDownloadsDocumentationGet	1
3	InvolvedHelpGetting	1
4	StartedIntroductionA	1

```
In [59]: # Convert all the tokens to lower case
df['word'] = df['word'].apply(lambda x: " ".join(x.lower() for x in x.split()))
df.head(5)
```

Out[59]:

	word	count
0	php:	1
1	hypertext	1
2	preprocessordownloadsdocumentationget	1
3	involvedhelpgetting	1
4	startedintroductiona	1

```
In [61]: # Remove the Punctuation
df['word'] = df['word'].str.replace('[^\w\s]', '')
df.head(5)
```

Out[61]:

	word	count
0	php	1
1	hypertext	1
2	preprocessdownloadsdocumentationget	1
3	involvedhelpgetting	1
4	startedintroductiona	1

Remove Stopwords

```
In [62]: # From wordcloud lib get the standard List of the Stop Words
stopwords = set(STOPWORDS)
df['word'] = df['word'].apply(lambda x: " ".join(x for x in x.split() if x not in stopwords))
df.head(5)
```

Out[62]:

	word	count
0	php	1
1	hypertext	1
2	preprocessdownloadsdocumentationget	1
3	involvedhelpgetting	1
4	startedintroductiona	1

Streaming

```
In [63]: # Stemming i.e removing suffix (ing/ly/s/es etc) using PorterStemmer of NLTK
stream = PorterStemmer()
df['word'].apply(lambda x: " ".join([stream.stem(word) for word in x.split()]))
df.head(5)
```

Out[63]:

	word	count
0	php	1
1	hypertext	1
2	preprocessdownloadsdocumentationget	1
3	involvedhelpgetting	1
4	startedintroductiona	1

```
In [73]: # Separate 20 most frequent words
df_new=pd.DataFrame()
df_new=df.loc[(df.word.values!='')].sort_values(by=['count'],ascending=False).head(20)
df_new
```

Out[73]:

	word	count
136	php	153
202	release	77
187	found	68
190	list	31
177	source	31
250	730	26
179	please	25
157	team	25
178	downloads	25
180	visit	25
183	windows	24
184	binaries	24
155	releasedthe	23
335	read	23
197	version	21
262	features	20
153	2018php	20
348	next	20
261	new	20
313	test	19

```
In [80]: df_new['word'].values
```

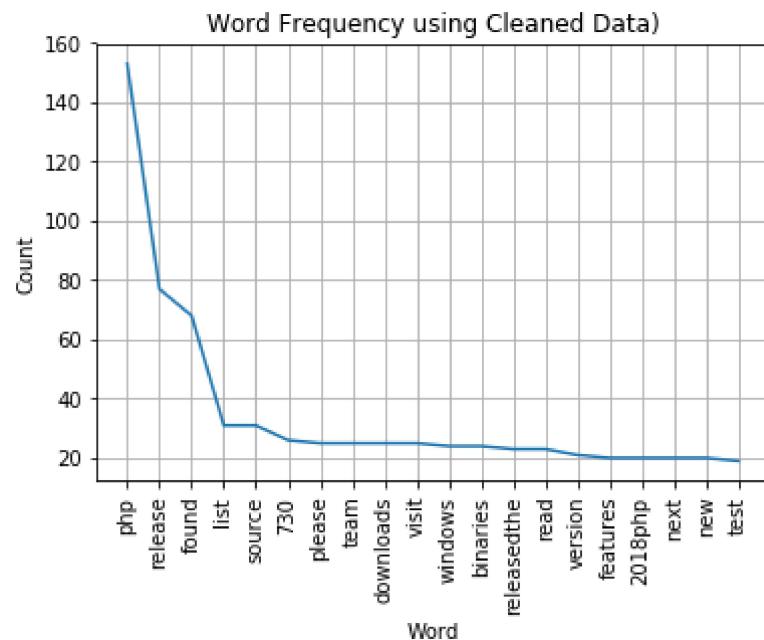
```
Out[80]: array(['php', 'release', 'found', 'list', 'source', '730', 'please',
       'team', 'downloads', 'visit', 'windows', 'binaries', 'releasedthe',
       'read', 'version', 'features', '2018php', 'next', 'new', 'test'],
      dtype=object)
```

```
In [79]: df_new['count'].values
```

```
Out[79]: array([153,  77,  68,  31,  31,  26,  25,  25,  25,  24,  24,  23,
       23,  21,  20,  20,  20,  19])
```

```
In [82]: # Plot using the df_new i.e. cleaned data
plt.plot(df_new['word'].values, df_new['count'].values)
plt.xlabel('Word')
plt.ylabel('Count')

plt.title('Word Frequency using Cleaned Data')
plt.xticks(rotation=90)
plt.grid()
plt.show()
```



```
In [87]: # Top Frequency Words in Word Cloud
wordcloud = WordCloud(
    background_color='white',
    stopwords=stopwords,
    max_words=20,
    max_font_size=30,
    random_state=1
).generate(str(df['word']))
```

```
print(wordcloud)
fig = plt.figure(1)
plt.imshow(wordcloud)
plt.axis('off')
plt.show()
```

```
<wordcloud.wordcloud.WordCloud object at 0x00000230E7B04C18>
```

