### Q.1) List and its default functions?

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| **FUNCTION** | **DESCRIPTION** |
| [reduce()](https://www.geeksforgeeks.org/reduce-in-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | apply a particular function passed in its argument to all of the list elements stores the intermediate result and only returns the final summation value |
| [sum()](https://www.geeksforgeeks.org/sum-function-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | Sums up the numbers in the list |
| [ord()](https://www.geeksforgeeks.org/ord-function-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | Returns an integer representing the Unicode code point of the given Unicode character |
| [cmp()](https://www.geeksforgeeks.org/python-2-number-cmplist-method/" \t "https://www.geeksforgeeks.org/python-list/_blank) | This function returns 1, if first list is “greater” than second list |
| max() | return maximum element of given list |
| min() | return minimum element of given list |
| [all()](https://www.geeksforgeeks.org/any-all-in-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | Returns true if all element are true or if list is empty |
| [any()](https://www.geeksforgeeks.org/any-all-in-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | return true if any element of the list is true. if list is empty, return false |
| len() | Returns length of the list or size of the list |
| [enumerate()](https://www.geeksforgeeks.org/enumerate-in-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | Returns enumerate object of list |
| accumulate() | apply a particular function passed in its argument to all of the list elements returns a list containing the intermediate results |
| [filter()](https://www.geeksforgeeks.org/filter-in-python/" \t "https://www.geeksforgeeks.org/python-list/_blank) | tests if each element of a list true or not |
| [map()](https://www.geeksforgeeks.org/python-map-function/" \t "https://www.geeksforgeeks.org/python-list/_blank) | returns a list of the results after applying the given function to each item of a given iterable |
| [lambda()](https://www.geeksforgeeks.org/python-lambda-anonymous-functions-filter-map-reduce/" \t "https://www.geeksforgeeks.org/python-list/_blank) | This function can have any number of arguments but only one expression, which is evaluated and returned. |

**Q.2) Dictionary And its Default Functions?**

Python includes the following dictionary functions −

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| **Sr.No.** | **Function with Description** |
| 1 | [cmp(dict1, dict2)](https://www.tutorialspoint.com/python/dictionary_cmp.htm)  Compares elements of both dict. |
| 2 | [len(dict)](https://www.tutorialspoint.com/python/dictionary_len.htm)  Gives the total length of the dictionary. This would be equal to the number of items in the dictionary. |
| 3 | [str(dict)](https://www.tutorialspoint.com/python/dictionary_str.htm)  Produces a printable string representation of a dictionary |
| 4 | [type(variable)](https://www.tutorialspoint.com/python/dictionary_type.htm)  Returns the type of the passed variable. If passed variable is dictionary, then it would return a dictionary type. |

**Q.3) Sets and its default functions?**

Built-in functions like all(), any(), enumerate(), len(), max(), min(), sorted(), sum() etc. are commonly used with sets to perform different tasks.

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| Function | Description |
| [all()](https://www.programiz.com/python-programming/methods/built-in/all) | Returns True if all elements of the set are true (or if the set is empty). |
| [any()](https://www.programiz.com/python-programming/methods/built-in/any) | Returns True if any element of the set is true. If the set is empty, returns False. |
| [enumerate()](https://www.programiz.com/python-programming/methods/built-in/enumerate) | Returns an enumerate object. It contains the index and value for all the items of the set as a pair. |
| [len()](https://www.programiz.com/python-programming/methods/built-in/len) | Returns the length (the number of items) in the set. |
| [max()](https://www.programiz.com/python-programming/methods/built-in/max) | Returns the largest item in the set. |
| [min()](https://www.programiz.com/python-programming/methods/built-in/min) | Returns the smallest item in the set. |
| [sorted()](https://www.programiz.com/python-programming/methods/built-in/sorted) | Returns a new sorted list from elements in the set(does not sort the set itself). |
| [sum()](https://www.programiz.com/python-programming/methods/built-in/sum) | Returns the sum of all elements in the set. |

**Q.4) Tuples and explore its default methods?**

The tuple() function is a built-in function in Python that can be used to create a tuple.

A tuple is an immutable sequence type.

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| **BUILT-IN FUNCTION** | **DESCRIPTION** |
| all() | Returns true if all element are true or if tuple is empty |
| any() | return true if any element of the tuple is true. if tuple is empty, return false |
| len() | Returns length of the tuple or size of the tuple |
| enumerate() | Returns enumerate object of tuple |
| max() | return maximum element of given tuple |
| min() | return minimum element of given tuple |
| [sum()](https://www.geeksforgeeks.org/sum-function-python/" \t "https://www.geeksforgeeks.org/python-tuples/_blank) | Sums up the numbers in the tuple |
| [sorted()](https://www.geeksforgeeks.org/sorted-function-python/" \t "https://www.geeksforgeeks.org/python-tuples/_blank) | input elements in the tuple and return a new sorted list |
| **[tuple()](https://www.geeksforgeeks.org/python-tuple-function/" \t "https://www.geeksforgeeks.org/python-tuples/_blank)** | Convert an iterable to a tuple. |

**Q.5) Strings and explore its default methods?**

Python has a set of built-in methods that you can use on strings.

****Note:**** All string methods returns new values. They do not change the original string.

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| **Method** | **Description** |
| [capitalize()](https://www.w3schools.com/python/ref_string_capitalize.asp) | Converts the first character to upper case |
| [casefold()](https://www.w3schools.com/python/ref_string_casefold.asp) | Converts string into lower case |
| [center()](https://www.w3schools.com/python/ref_string_center.asp) | Returns a centered string |
| [count()](https://www.w3schools.com/python/ref_string_count.asp) | Returns the number of times a specified value occurs in a string |
| [encode()](https://www.w3schools.com/python/ref_string_encode.asp) | Returns an encoded version of the string |
| [endswith()](https://www.w3schools.com/python/ref_string_endswith.asp) | Returns true if the string ends with the specified value |
| [expandtabs()](https://www.w3schools.com/python/ref_string_expandtabs.asp) | Sets the tab size of the string |
| [find()](https://www.w3schools.com/python/ref_string_find.asp) | Searches the string for a specified value and returns the position of where it was found |
| [format()](https://www.w3schools.com/python/ref_string_format.asp) | Formats specified values in a string |
| format\_map() | Formats specified values in a string |
| [index()](https://www.w3schools.com/python/ref_string_index.asp) | Searches the string for a specified value and returns the position of where it was found |
| [isalnum()](https://www.w3schools.com/python/ref_string_isalnum.asp) | Returns True if all characters in the string are alphanumeric |
| [isalpha()](https://www.w3schools.com/python/ref_string_isalpha.asp) | Returns True if all characters in the string are in the alphabet |
| [isdecimal()](https://www.w3schools.com/python/ref_string_isdecimal.asp) | Returns True if all characters in the string are decimals |
| [isdigit()](https://www.w3schools.com/python/ref_string_isdigit.asp) | Returns True if all characters in the string are digits |
| [isidentifier()](https://www.w3schools.com/python/ref_string_isidentifier.asp) | Returns True if the string is an identifier |
| [islower()](https://www.w3schools.com/python/ref_string_islower.asp) | Returns True if all characters in the string are lower case |
| [isnumeric()](https://www.w3schools.com/python/ref_string_isnumeric.asp) | Returns True if all characters in the string are numeric |
| [isprintable()](https://www.w3schools.com/python/ref_string_isprintable.asp) | Returns True if all characters in the string are printable |
| [isspace()](https://www.w3schools.com/python/ref_string_isspace.asp) | Returns True if all characters in the string are whitespaces |
| [istitle()](https://www.w3schools.com/python/ref_string_istitle.asp) | Returns True if the string follows the rules of a title |
| [isupper()](https://www.w3schools.com/python/ref_string_isupper.asp) | Returns True if all characters in the string are upper case |
| [join()](https://www.w3schools.com/python/ref_string_join.asp) | Joins the elements of an iterable to the end of the string |
| [ljust()](https://www.w3schools.com/python/ref_string_ljust.asp) | Returns a left justified version of the string |
| [lower()](https://www.w3schools.com/python/ref_string_lower.asp) | Converts a string into lower case |
| [lstrip()](https://www.w3schools.com/python/ref_string_lstrip.asp) | Returns a left trim version of the string |
| [maketrans()](https://www.w3schools.com/python/ref_string_maketrans.asp) | Returns a translation table to be used in translations |
| [partition()](https://www.w3schools.com/python/ref_string_partition.asp) | Returns a tuple where the string is parted into three parts |
| [replace()](https://www.w3schools.com/python/ref_string_replace.asp) | Returns a string where a specified value is replaced with a specified value |
| [rfind()](https://www.w3schools.com/python/ref_string_rfind.asp) | Searches the string for a specified value and returns the last position of where it was found |
| [rindex()](https://www.w3schools.com/python/ref_string_rindex.asp) | Searches the string for a specified value and returns the last position of where it was found |
| [rjust()](https://www.w3schools.com/python/ref_string_rjust.asp) | Returns a right justified version of the string |
| [rpartition()](https://www.w3schools.com/python/ref_string_rpartition.asp) | Returns a tuple where the string is parted into three parts |
| [rsplit()](https://www.w3schools.com/python/ref_string_rsplit.asp) | Splits the string at the specified separator, and returns a list |
| [rstrip()](https://www.w3schools.com/python/ref_string_rstrip.asp) | Returns a right trim version of the string |
| [split()](https://www.w3schools.com/python/ref_string_split.asp) | Splits the string at the specified separator, and returns a list |
| [splitlines()](https://www.w3schools.com/python/ref_string_splitlines.asp) | Splits the string at line breaks and returns a list |
| [startswith()](https://www.w3schools.com/python/ref_string_startswith.asp) | Returns true if the string starts with the specified value |
| [strip()](https://www.w3schools.com/python/ref_string_strip.asp) | Returns a trimmed version of the string |
| [swapcase()](https://www.w3schools.com/python/ref_string_swapcase.asp) | Swaps cases, lower case becomes upper case and vice versa |
| [title()](https://www.w3schools.com/python/ref_string_title.asp) | Converts the first character of each word to upper case |
| [translate()](https://www.w3schools.com/python/ref_string_translate.asp) | Returns a translated string |
| [upper()](https://www.w3schools.com/python/ref_string_upper.asp) | Converts a string into upper case |
| [zfill()](https://www.w3schools.com/python/ref_string_zfill.asp) | Fills the string with a specified number of 0 values at the beginning |