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**Assignment : 1**

**Tools : Google Colab**

**Programming : Python**

**GitHub Link:**

<https://github.com/sanikommunikhilreddy/ML-Assignment-1>

**Question-1**

**Text

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**EXPLANATION:**

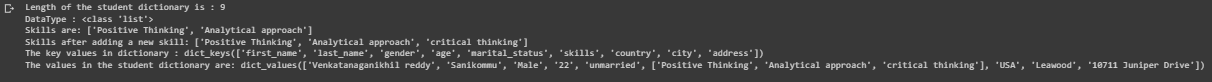
Given ages = [19, 22, 19, 24, 20, 25, 26, 24, 25, 24]

* Using sort()function, sorted the given studentages list and printed the sorted list
* Using max() and min()functions, got the minimum age and maximum age in the studentages list
* Using append() function, added the minimum and maximum Ages of the students to the studentages list.
* Used median() function to find out median of the Studentages list.
* To add all the values, I used FOR loop by initializing a variable called sum=0 and with len() we can find out the number of values or elements of that variable.
* Used sum/len(studentages) to find the average.
* Used max(studentages)-min(studentages) to find the Range.

**Question-2**

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**Explanation:**

* Created a empty dictionary called dog{}
* Given attributes to the dictionary called name, color, breed, legs, age to the created dog dictionary.
* Created a student dictionary with attributes and assigned values to the keys like first\_name, last\_name, gender, age, marital\_status, skills, country, city, address.
* Used len(student) to student dictionary to find out the length of the student dictionary.
* Used append() function to add new skills to the skills key.
* student.keys() or student.values() method is used to get the keys and values of the student.

**Question-3**

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**Explanation:**

* created a sisters and brother tuples()
* Using + operator, it adds the tuples or joining the elements to the list.
* First I created tuples and named them as brothers and sisters. After I have joined both tuples and assigned them to siblings.
* Calculated the length of siblings using len()
* Added two more name to siblings list and assigned the whole list to family\_members.

**Question-4Text

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**Explanation:**

* Used len(), to find the length of the set.
* Add() is used to add new element into the set.
* Remove() is used to remove the value from the given string.
* A.union(B) is inbuilt function to join two sets.
* To find out the intersection, subset, disjoint, symmetric difference we have following function like intersection(), issubset(), disjoint(), symmetric\_difference().
* To convert a list to set, I passed the list to set().

**Question-5**

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**Explanation:**

* I have given radius 30 and created a area of circle using formula 3.14\*radius\*radius.
* Calculated circumference of the circle using the formula 2\*3.14\*radius.
* Input() is used to enter input values manually in console.

**Question-6**

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Explanation:

* Used split() function to split the string.
* Used set to get the unique words in each string.
* I have combinedly used set and spilt like this, set(string.split()).
* The Sting got splitted and unique keywords are displayed.

**Question-7**

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**Explanation:**

* \n is used to print in the next line.
* \t is used to give a tab space.

**Question-8**

**Text

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**Explanation:**

* Format() operator is used to take given string as a parameter and added to the placeholder value.

**Question-9**

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**Explanation:**

* I have taken the No. of values to be converted manually.
* Created two lists namely list and con\_list.
* Used FOR loop to initialize the values by taking from the user.
* Another for loop is by taking one by one and converting them to required using the math and then appending these values to other list.

**Question-10**

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