MACHINE LEARNING

GITHUB LINK: https://github.com/vijender6/vijender/tree/main

RECORDING VIDEO LINK: https://drive.google.com/file/d/1evZchm5l-W3L5fldToK4e76GPOCVKJrF/view?usp=drive_link

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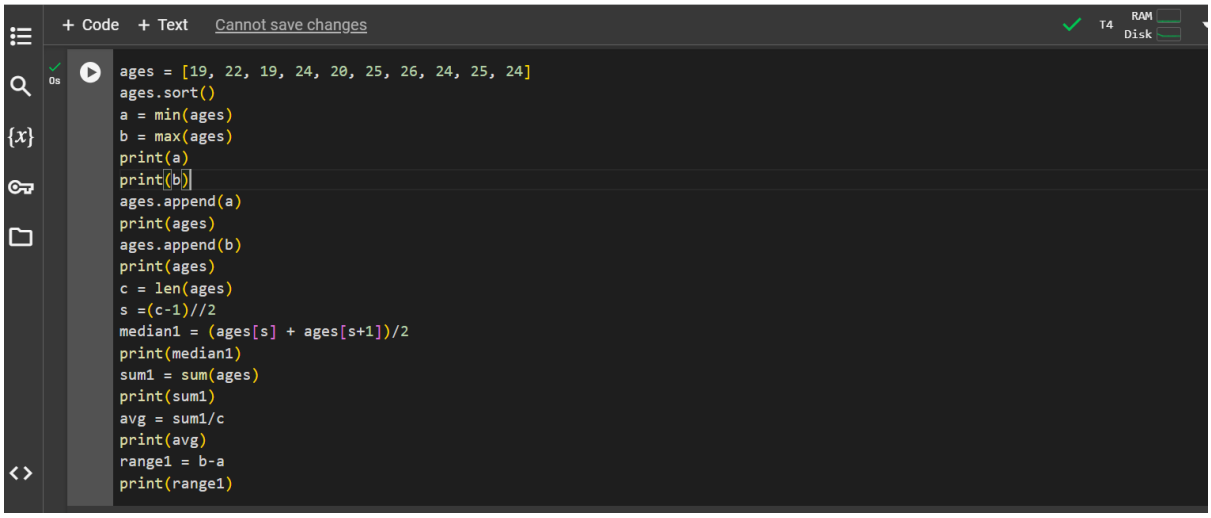
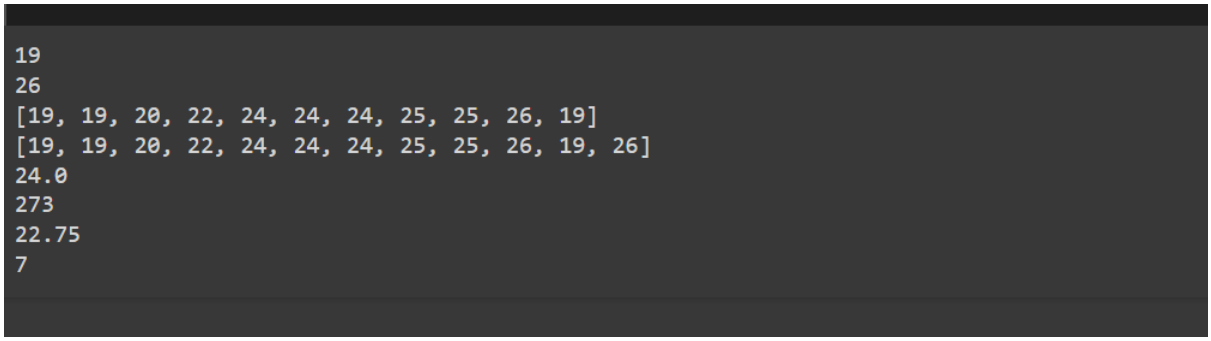
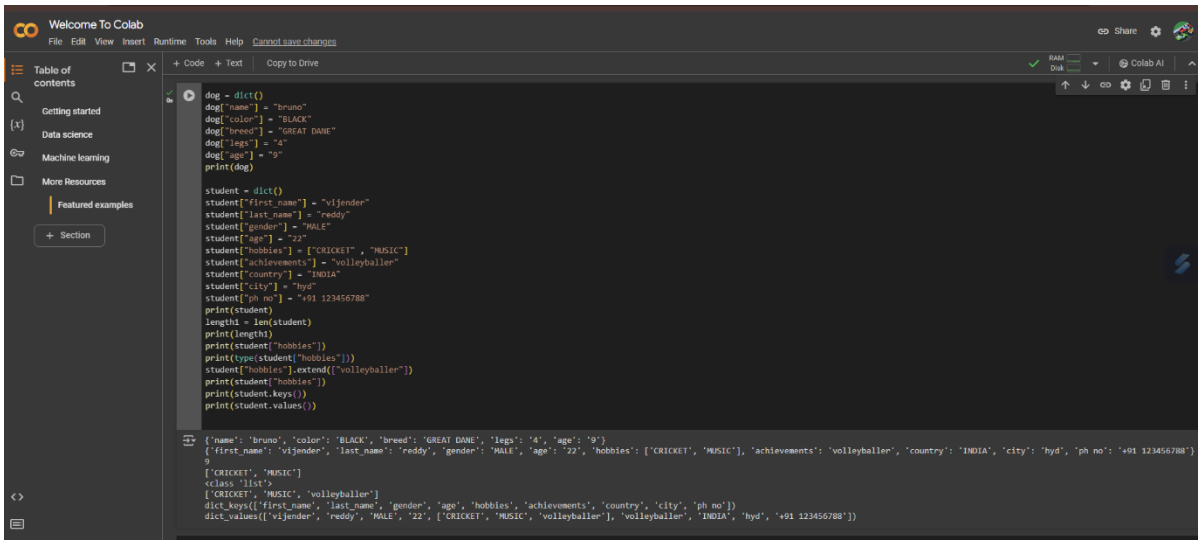
Q1.Sorting the list , finding the min and max age ,Median, Mean and range of the ages.

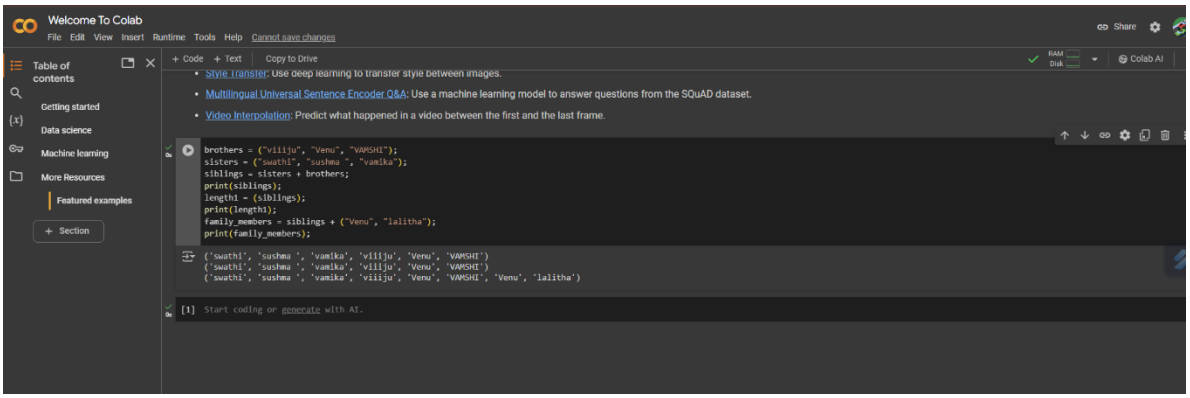




Q2.Create a dictionary as Dog and insert attributes then create student dictionary and add keys as given. Find length, values of skills and modify.



Q3.Create tuple as sisters and brothers. Add those tuples to siblings and then modify.



Q4.Find the length, Perform Join, intersection, disjoint, subset and then delete the sets.

```
it_companies = {'Facebook', 'Google', 'Microsoft', 'Apple', 'IBM', 'Oracle', 'Amazon'}
print(" length:",len(it_companies))
it_companies.update(['twitter'])
print(it_companies)
it_companies.remove("IBM")
print(it_companies)
it_companies.update({'Blueberry'})
print(it_companies)
A = {19, 22, 24, 20, 25, 26}
B = {19, 22, 20, 25, 26, 24, 28, 27}
X=A.union(B)
print(X)
Y=A.intersection(B)
print(Y)
print(A&B)
print(A.issubset(B))
print(A.isdisjoint(B))
print(A.symmetric_difference(B))
X.clear()
print(X)
age_list = [22, 19, 24, 25, 26, 24, 25, 24]
print("Age",len(age_list))
AGE_SET= set(age_list)
print("Age",AGE_SET)
print("Age",len(AGE_SET))
```

```
 length: 7
{'Google', 'twitter', 'IBM', 'Apple', 'Amazon', 'Oracle', 'Facebook', 'Microsoft'}
{'Google', 'twitter', 'Apple', 'Amazon', 'Oracle', 'Facebook', 'Microsoft'}
{'Google', 'twitter', 'Amazon', 'Oracle', 'Microsoft', 'Blueberry', 'Apple', 'Facebook'}
{19, 20, 22, 24, 25, 26, 27, 28}
{19, 20, 22, 24, 25, 26}
{19, 20, 22, 24, 25, 26}
True
False
{27, 28}
set()
Age 8
Age {19, 22, 24, 25, 26}
Age 5
```

Q5.Calculate area of circle, circumference of circle.

```
r = 30
pi = 3.14
area_of_circle = pi*r**2
res = 'The area of circle with {} is {}'.format(str(r), str(area_of_circle))
print(res)
circum_of_circle = 2*3.14*r
print("circumference of circle:",circum_of_circle)
user_input=float(input())
raaadius=20
area_of_circle=pi*raaadius**2
print(area_of_circle)
```

```
The area of circle with 30 is 2826.0
circumference of circle: 188.4
5
1256.0
```

Q6. Count unique words of the sentence.

```
sentence="I am a teacher and I love to inspire and teach people"
unique_letter=set(sentence.split())
print("no.of unique words are ",len(unique_letter))
```

```
no.of unique words are  10
```

Q7. Use tab escape

```
sequence="Name\tAge\tCountry\tCity\tASABNEH\t250\tFINLAND\tHELSINKI";
print(sequence);
```

```
Name    Age     Country City    ASABNEH 250     FINLAND HELSINKI
```

Q8.Find area of circle of r=10

```
radius = 10
area = 3.14 * radius ** 2
print("The area of a circle with a radius %s is %s meters square." %(radius,area))
```

```
The area of a circle with a radius 10 is 314.0 meters square.
```

Q9.Read the weights of N students in lbs and convert these weights of students into kilograms.

```
c=0.45
v=int(input("number of students"))
l1=[]
l2=[]
for i in range(v):
    l1.append(int(input("enter weight in lbs:"+str(i+1)+" ")))
    l2.append(round(l1[i]*0.453,2))
print("given weights in lbs:",l1)
print("converted weights in kgs:",l2)
```

```
number of students2
enter weight in lbs:1 100
enter weight in lbs:2 200
given weights in lbs: [100, 200]
converted weights in kgs: [45.3, 90.6]
```