

190031920

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DS Skill 7

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In [1]: import pandas as pd
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In [2]: indiadata = pd.read_excel('indiadata.xlsx')

indiadata
```

	Name	SSN NO	Country	Bodytemp_india	Height_ind(Feet)
0	A	15ind01	IND	98.4	5.8
1	B	15ind02	IND	98.4	5.7
2	C	15ind03	IND	97.8	5.5
3	D	15ind04	IND	98.6	5.4
4	E	15ind05	IND	97.8	5.6
5	F	15ind06	IND	98.6	6.2
6	G	15ind07	IND	98.6	6.1
7	H	15ind08	IND	98.8	5.1
8	I	15ind09	IND	99.6	5.6
9	J	15ind10	IND	98.8	5.4

```
In [3]: usadata = pd.read_excel('usadata.xlsx')

usadata
```

	SI. No	Name	SSN NO	Country	Bodytemp_usa	Height_usa(feet)
0	1	x	12us01	USA	97.2	6.40
1	2	y	12us02	USA	97.4	6.50
2	3	z	12us03	USA	98.5	6.20
3	4	p	12us04	USA	98.6	5.90
4	5	q	12us05	USA	97.8	5.80
5	6	r	12us06	USA	97.6	5.11
6	7	s	12us07	USA	98.6	6.30
7	8	t	12us08	USA	98.9	6.50
8	9	u	12us09	USA	99.2	6.70
9	10	v	12us10	USA	99.2	6.60

```
In [4]: print("Variance of Bodytemp india is :",indiadata.var()['Bodytemp_india'])

Variance of Bodytemp india is : 0.26711111111110974
```

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In [5]: print("Variance of Bodytemp usa is :",usadata.var()['Bodytemp_usa'])

Variance of Bodytemp usa is : 0.5511111111111116
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In [6]: Bodytemp_indiaplususa = indiadata['Bodytemp_india'] + usadata['Bodytemp_usa']

print("Variance of Bodytemp india and usa combined is :",Bodytemp_indiaplususa.var())

Variance of Bodytemp india and usa combined is : 1.2271111111111048
```

```
In [7]: print("Variance of height of india is :",indiadata.var()['Height_ind(Feet)'])

Variance of height of india is : 0.10933333333333332
```

```
In [8]: print("Variance of height of usa is :",usadata.var()['Height_usa(feet)'])

Variance of height of usa is : 0.23089888888888888
```

```
In [9]: height_indiaplususa = indiadata['Height_ind(Feet)'] + usadata['Height_usa(feet)']

print("Variance of height of india and usa combined is :",height_indiaplususa.var())

Variance of height of india and usa combined is : 0.18369888888888872
```

Post Lab

```
In [10]: iris = pd.read_csv('Iris.csv')

iris
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa
...
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica
148	149	6.2	3.4	5.4	2.3	Iris-virginica
149	150	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 6 columns

```
In [11]: print("Variance of sepal length is :",iris.var()['SepalLengthCm'])

Variance of sepal length is : 0.6856935123042507
```

```
In [12]: print("Variance of sepal width is :",iris.var()['SepalWidthCm'])

Variance of sepal width is : 0.1880040268456376
```

```
In [13]: iris['Sepallengthandwidth'] = iris['SepalLengthCm'] + iris['SepalWidthCm']

iris['Sepallengthandwidth']

0      8.6
1      7.9
2      7.9
3      7.7
4      8.6
...
145    9.7
146    8.8
147    9.5
148    9.6
149    8.9
Name: Sepallengthandwidth, Length: 150, dtype: float64
```

```
In [14]: print("Variance of the sum of sepal length and width is :",iris.var()['Sepallengthandwidth'])

Variance of the sum of sepal length and width is : 0.7951606263982103
```