

Dictionary

Intuition

Employee General Info:

Name	Height	Weight	Age	Marital Status	Favorite Sports	Education
Suresh	165	81	31	Married	Cricket	Graduate
Lakshay	125	76	29	Married	Soccer	Graduate
Vinesh	140	55	25	Single	Golf	Graduate
Aishwarya	175	89	25	Single	Cricket, Tennis	Graduate
Ankit	131	68	27	Married	Soccer, Cricket	Graduate
Faizan	178	76	22	Single	Cricket	Graduate
Pranav	162	73	35	Married	Soccer	Graduate
Pulkit	163	67	24	Single	Badminton	Graduate
Ram	173	54	25	Single	Cricket	Graduate
Abhiraj	156	53	21	Single	Soccer, Badminton	Graduate

Intuition

Multiple columns

Employee General Info:

Name	Height	Weight	Age	Marital Status	Favorite Sports	Education
Suresh	165	81	31	Married	Cricket	Graduate
Lakshay	125	76	29	Married	Soccer	Graduate
Vinesh	140	55	25	Single	Golf	Graduate
Aishwarya	175	89	25	Single	Cricket, Tennis	Graduate
Ankit	131	68	27	Married	Soccer, Cricket	Graduate
Faizan	178	76	22	Single	Cricket	Graduate
Pranav	162	73	35	Married	Soccer	Graduate
Pulkit	163	67	24	Single	Badminton	Graduate
Ram	173	54	25	Single	Cricket	Graduate
Abhiraj	156	53	21	Single	Soccer, Badminton	Graduate

Intuition

- Height in Cm
- Weight in Kgs
- Age in Years

Names = ["Ramesh", "Suresh", "Sudesh"]

Height = [150, 145, 165]

Weight = [56, 60, 65]

Age = [23, 45, 58]

Lists



Analytics Vidhya

Learn everything about analytics

Intuition

- Height in Cm
- Weight in Kgs
- Age in Years
- .
- .
- Some info

Names = ["Ramesh", "Suresh", "Sudesh"]

Height = [150, 145, 165]

Weight = [56, 60, 65]

Age = [23, 45, 58]

Lists

How Many Lists?

Intuition

Name	Height	Weight	Age	Marital Status	Favorite Sports	Education
Suresh	165	81	31	Married	Cricket	Graduate
Lakshay	125	76	29	Married	Soccer	Graduate
Vinesh	140	55	25	Single	Golf	Graduate
Aishwarya	175	89	25	Single	Cricket, Tennis	Graduate
Ankit	131	68	27	Married	Soccer, Cricket	Graduate
Faizan	178	76	22	Single	Cricket	Graduate
Pranav	162	73	35	Married	Soccer	Graduate
Pulkit	163	67	24	Single	Badminton	Graduate
Ran	173	54	25	Single	Cricket	Graduate
Abhiraj	156	53	21	Single	Soccer, Badminton	Graduate



Employee General Info

Intuition

Name	Height	Weight	Age	Marital Status	Favorite Sports	Education
Suresh	165	81	31	Married	Cricket	Graduate
Lakshay	125	76	29	Married	Soccer	Graduate
Vinesh	140	55	25	Single	Golf	Graduate
Aishwarya	175	89	25	Single	Cricket, Tennis	Graduate
Ankit	131	68	27	Married	Soccer, Cricket	Graduate
Faizan	178	76	22	Single	Cricket	Graduate
Pranav	162	73	35	Married	Soccer	Graduate
Pulkit	163	67	24	Single	Badminton	Graduate
Ran	173	54	25	Single	Cricket	Graduate
Abhiraj	156	53	21	Single	Soccer, Badminton	Graduate

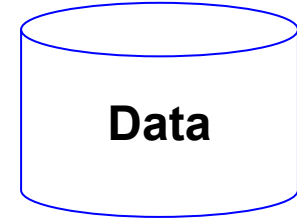


Employee General Info

Company Revenue

Intuition

Name	Height	Weight	Age	Marital Status	Favorite Sports	Education
Suresh	165	81	31	Married	Cricket	Graduate
Lakshay	125	76	29	Married	Soccer	Graduate
Vinesh	140	55	25	Single	Golf	Graduate
Aishwarya	175	89	25	Single	Cricket, Tennis	Graduate
Ankit	131	68	27	Married	Soccer, Cricket	Graduate
Faizan	178	76	22	Single	Cricket	Graduate
Pranav	162	73	35	Married	Soccer	Graduate
Pulkit	163	67	24	Single	Badminton	Graduate
Ran	173	54	25	Single	Cricket	Graduate
Abhiraj	156	53	21	Single	Soccer, Badminton	Graduate



Employee General Info

Company Revenue

Tax Details

Intuition

Lists



Names = ["Ramesh", "Suresh", "Sudesh"]

Height = [150, 145, 165]

Weight = [56, 60, 65]

Age = [23, 45, 58]

Intuition

Lists



```
Names = ["Ramesh", "Suresh", "Sudesh"]
```

```
Height = [150, 145, 165]
```

```
Weight = [56, 60, 65]
```

```
Age = [23, 45, 58]
```

```
employee_info = {  
    "names": ["Ramesh", "Suresh", "Sudesh"],  
    "height": [150, 145, 165],  
    "weight": [56, 60, 65],  
    "age": [23, 45, 58]  
}
```

Intuition

Lists



```
Names = ["Ramesh", "Suresh", "Sudesh"]  
Height = [150, 145, 165]  
Weight = [56, 60, 65]  
Age = [23, 45, 58]
```

Dictionary



```
employee_info = {  
    "names": ["Ramesh", "Suresh", "Sudesh"],  
    "height": [150, 145, 165],  
    "weight": [56, 60, 65],  
    "age": [23, 45, 58]  
}
```

What is a Dictionary?

- A dictionary is an **unordered** data structure.
- Elements are separated by a comma and stored as key : value pair.
- A dictionary is enclosed within curly brackets.

Some examples of Dictionary -

```
dict1={'Ramesh': 150, 'Suresh': 146, 'Sudesh': 160}
```

← key : value, where value is a number

```
dict2={'Ramesh':[150,46], 'Suresh':[146,58], 'Sudesh':[160,50]}
```

← key : value, where value is a List

Accessing elements of a Dictionary

Elements are accessed by **keys** rather than index.

```
dict2={'Ramesh':[150,46], 'Suresh':[146,58], 'Sudesh':[160,50]}
```

Dictionary accessed by index →

```
dict2[1]
```

```
-----  
-----  
KeyError                                Traceback (most recent  
  File "<ipython-input-6-dcfc8a4cd039>", line 1, in <module>()  
    dict2[1]  
KeyError: 1
```

Accessing elements of a Dictionary

Elements are accessed by keys rather than index.

```
dict2={'Ramesh':[150,46], 'Suresh':[146,58], 'Sudesh':[160,50]}
```

Dictionary accessed by key →

```
dict2['Suresh']
```

```
[146, 58]
```

Adding elements to a Dictionary

```
dict2={'Ramesh':[150,46],'Suresh':[146,58],'Sudesh':[160,50]}
```

Adding a single element



```
dict2['Neeraj']=[176,75]
```

```
dict2
```

```
{'Neeraj': [176, 75],  
'Ramesh': [150, 46],  
'Sudesh': [160, 50],  
'Suresh': [146, 58]}
```

Adding elements to a Dictionary

```
dict2={'Ramesh':[150,46],'Suresh':[146,58],'Sudesh':[160,50]}
```

```
dict2.update({'sunil':[150,70],'disha':[155,80]})
```

Adding multiple elements at once →

```
dict2
```

```
{'Ramesh': [150, 46],  
'Sudesh': [160, 50],  
'Suresh': [146, 58],  
'disha': [155, 80],  
'sunil': [150, 70]}
```


Deleting element of a Dictionary

```
dict2={'Ramesh':[150,46],'Suresh':[146,58],'Sudesh':[160,50]}
```

Deleting an element →

```
del dict2['Ramesh']
```

```
dict2
```

```
{'Sudesh': [160, 50], 'Suresh': [146, 58]}
```

Thank You!