

Dictionaries are used to store data values in key:value pairs. Dictionary are also mutable like lists. But dictionary does not allow duplicate values.

```
In [2]: #Create dictionary
d1={"country":"Nepal","name":"shakti","position":"Manager","Salary":60000}
```

```
In [3]: print(d1)

{'country': 'Nepal', 'name': 'shakti', 'position': 'Manager', 'Salary': 60000}
```

```
In [4]: type(d1)
```

```
Out[4]: dict
```

```
In [5]: #lets create another dictionary too to see whether it accept duplicate value or not
thisdict = {
    "brand": "Ford",
    "model": "Mustang",
    "year": 1964,
    "year": 2020
}
print(thisdict)
```

```
{'brand': 'Ford', 'model': 'Mustang', 'year': 2020}
```

Lets create Dictionary inside dictionary too

```
In [7]: d2={"Country":"Nepal","Salary":80000,"Name":{"firstname":"Ram","lastname":"Bhaijan"}}
```

```
In [8]: print(d2)

{'Country': 'Nepal', 'Salary': 80000, 'Name': {'firstname': 'Ram', 'lastname': 'Bhaijan'}}
```

Assess dictionary element

```
In [9]: #lets see keys and values
d1.keys()
```

```
Out[9]: dict_keys(['country', 'name', 'position', 'Salary'])
```

```
In [10]: d1.values()
```

```
Out[10]: dict_values(['Nepal', 'shakti', 'Manager', 60000])
```

```
In [11]: d1.items()
```

```
Out[11]: dict_items([('country', 'Nepal'), ('name', 'shakti'), ('position', 'Manager'), ('Salary', 60000)])
```

```
In [13]: #In dictionary, we cannot use indexing and position like string, tuples and list.
d1["country"]
```

```
Out[13]: 'Nepal'
```

```
In [14]: #here we have to use keys.
```

```
In [15]: #Now lets run d2
print(d2)
```

```
{'Country': 'Nepal', 'Salary': 80000, 'Name': {'firstname': 'Ram', 'lastname': 'Bhaijan'}}
```

```
In [16]: #suppose we need output Ram?
d2["Name"]["firstname"]
```

```
Out[16]: 'Ram'
```

```
In [21]: #Changing/Modifying dictionary
d2["Salary"]=9000
```

```
In [22]: print(d2)

{'Country': 'Nepal', 'Salary': 9000, 'Name': {'firstname': 'Ram', 'lastname': 'Bhaijan'}}
```

Adding element in dictionary

```
In [23]: d2["age"]=24
```

```
In [24]: print(d2)

{'Country': 'Nepal', 'Salary': 9000, 'Name': {'firstname': 'Ram', 'lastname': 'Bhaijan'}, 'age': 24}
```

Deleting elements or items from dictionary

```
In [25]: d2.pop("age")
```

```
Out[25]: 24
```

```
In [26]: print(d2)
```

```
{'Country': 'Nepal', 'Salary': 9000, 'Name': {'firstname': 'Ram', 'lastname': 'Bhaijan'}}
```

```
In [27]: d2.clear()
```

```
In [28]: print(d2)
```

```
{}
```

```
In [30]: #dictionary items got clear now d2 is empty.
```

```
del d2          #deleting whole dictionary
```

```
In [31]: print(d2)
```

```
-----  
NameError                                Traceback (most recent call last)
```

```
Cell In[31], line 1
```

```
----> 1 print(d2)
```

```
NameError: name 'd2' is not defined
```

```
In [ ]:
```

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