In [4]:

```python
# create a dictionary
dict1 = {'data': '123',
         'science':'234',
         'AI': '235'}

# write a program to sort a dictionary by key.
```

In [5]:

```python
#solution
for key in sorted(dict1):
    print("%s: %s" % (key, dict1[key]))
```

```
AI: 235
data: 123
science: 234
```

In [6]:

```python
#Write a Python program to get a dictionary from an object's fields.
```

In [7]:

```python
#solution
class dictObj(object):
    def __init__(self):
        self.x = 'algorithm'
        self.y = 'statistics'
        self.z = 'programming'
    def do_nothing(self):
        pass
test = dictObj()
print(test.__dict__)
```

```
{'x': 'algorithm', 'y': 'statistics', 'z': 'programming'}
```

In [8]:

```python
# write a program to remove duplicates from Dictionary.
```

In [9]:

```
#solution
student_data = {'id1':
    {'name': ['Sara'],
     'class': ['V'],
     'subject_integration': ['english, math, science']
    },
  'id2':
   {'name': ['David'],
     'class': ['V'],
     'subject_integration': ['english, math, science']
    },
  'id3':
    {'name': ['Sara'],
     'class': ['V'],
     'subject_integration': ['english, math, science']
    },
  'id4':
    {'name': ['Surya'],
     'class': ['V'],
     'subject_integration': ['english, math, science']
    },
}

result = {}

for key,value in student_data.items():
    if value not in result.values():
        result[key] = value

print(result)
```

{'id1': {'name': ['Sara'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id2': {'name': ['David'], 'class': ['V'], 'subject_integration': ['english, math, science']}, 'id4': {'name': ['Surya'], 'class': ['V'], 'subject_integration': ['english, math, science']}}

In [10]:

```
# write a program to combine two dictionary adding values for common keys
```

In [11]:

```
#solution
from collections import Counter
d1 = {'a': 1000, 'b': 3200, 'c':1300}
d2 = {'a': 300, 'b': 200, 'd':400}
d = Counter(d1) + Counter(d2)
print(d)
```

Counter({'b': 3400, 'a': 1300, 'c': 1300, 'd': 400})

In [26]:

```
# write a program to print all unique values from a dictionary in a list
```

In [27]:

```python
data = [{"V":"S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII":"S005"}, {
"V":"S009"},{"VIII":"S007"}]
```

In [28]:

```python
#solution
u_value = set( val for dic in data for val in dic.values())
print("Unique Values: ",u_value)
```

Unique Values: {'S007', 'S002', 'S001', 'S009', 'S005'}

In [29]:

```python
type(data)
```

Out[29]:

list

In [ ]: