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In [1]: range(20,31)
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Out[1]: range(20, 31)
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In [3]: l=list(range(20,31))
```

```
In [4]: 1 1
```

```
Out[4]: [20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30]
```

```
In [5]: len(l)
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```
Out[5]: 11
```

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In [6]: #Built In Functions were discussed above
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In [7]: #package starts here
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In [8]: #a module is a simple file containing of data,function and statments. putting mod  
#useful because of the ability to import the module functionality in your code.
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In [9]: #a package is a complex manner of combining all the modules into one ssingle bloc
```

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In [10]: #1. Find package 2. Install package 3. Import module from Package
```

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In [11]: #arrays in Python
```

```
In [12]: l=[1,2,3,4,5,6,7]
```

```
In [13]: 1
```

```
Out[13]: [1, 2, 3, 4, 5, 6, 7]
```

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In [14]: l.extend("ARRAY")
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In [17]: #python has 2 types of array:- 1. Built in core of python known as array arrays 2
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```
In [18]: import numpy as np
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```
In [19]: np.array(l)
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```
Out[19]: array(['1', '2', '3', '4', '5', '6', '7', 'A', 'R', 'R', 'A', 'Y'],  
              dtype='<U11')
```

```
In [20]: a=np.array(l)
```

In [21]: a

Out[21]: array(['1', '2', '3', '4', '5', '6', '7', 'A', 'R', 'R', 'A', 'Y'],
dtype='<U11')

In [22]: *#we dont you array because we cant have array of mixed data type*

In [23]: l1=[1,2,3,4,5]

In [24]: a1=np.array(l1)

In [25]: a1

Out[25]: array([1, 2, 3, 4, 5])

In [26]: l1.pop()

Out[26]: 'Y'

In [27]: l1

Out[27]: [1, 2, 3, 4, 5, 6, 7, 'A', 'R', 'R', 'A']

In [32]: a1.all()*#array has multiple functions available as compared to lists*

Out[32]: True

In []: