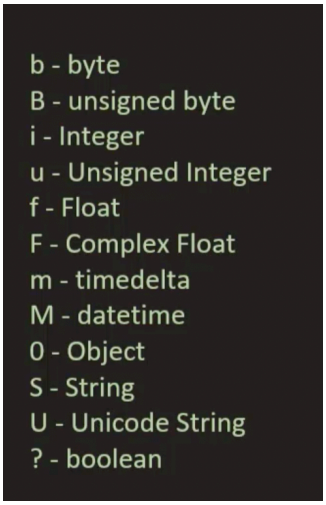
Numpy DataType

- The following are Numpy datatypes



- Bytes and Unsigned Bytes

```
In [1]: import numpy as np

In [6]: ar = np.array([1,2,3,4],'b')

In [7]: ar.dtype
Out[7]: dtype('int8')

In [ ]:
```

```
In [1]: import numpy as np

In [12]: ar = np.array([1,2,3,129],'b')

In [13]: ar
Out[13]: array([  1,   2,   3, -127], dtype=int8)

In [ ]:
```

- Signed and Unsigned integer

```
In [1]: import numpy as np
In [31]: ar = np.array([1,2,3,4],'i')
In [32]: ar.dtype
Out[32]: dtype('int32')
In [ ]:
```

```
In [1]: import numpy as np
In [33]: ar = np.array([1,2,3,4],'I')
In [34]: ar.dtype
Out[34]: dtype('uint32')
```

- float and unsigned float

```
In [1]: import numpy as np
In [35]: ar = np.array([1,2,3,4],'f')
In [36]: ar.dtype
Out[36]: dtype('float32')
In [37]: ar
Out[37]: array([1., 2., 3., 4.], dtype=float32)
```

```
In [1]: import numpy as np
In [38]: ar = np.array([1,2,3,4],'F')
In [39]: ar.dtype
Out[39]: dtype('complex64')
In [40]: ar
Out[40]: array([1.+0.j, 2.+0.j, 3.+0.j, 4.+0.j], dtype=complex64)
```

- O - will convert it into python object
- S - will convert it into Byte String
- U - it is a unicode character