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# Python Primer 106

Python build-in functions

# Dua of the day

The righteous dua that Abu Bakr (r) made at the end of his lifetime.

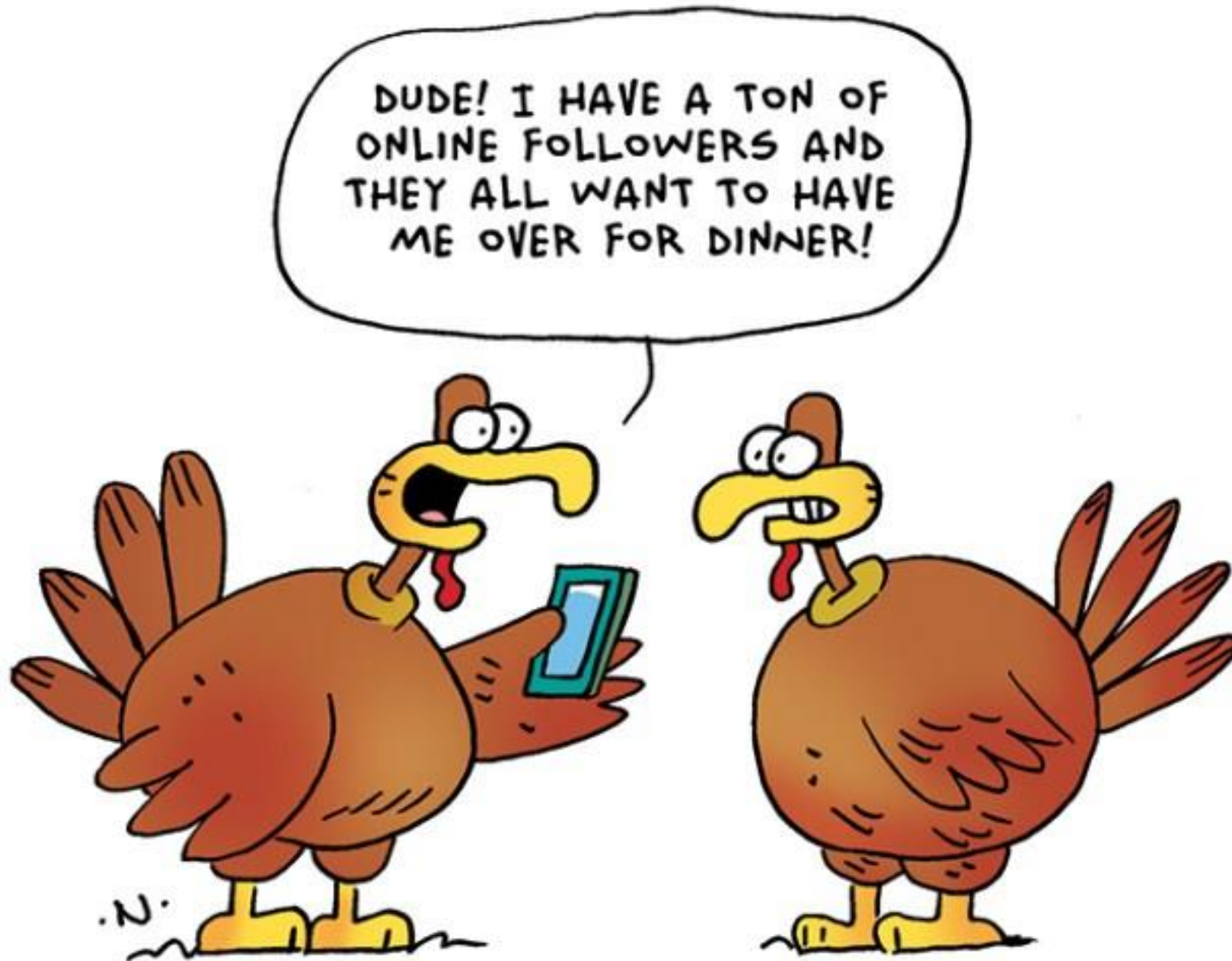
اللَّهُمَّ اجْعَلْ خَيْرَ زَمَانِي آخِرَهُ، وَخَيْرَ عَمَلِي خَوَاتِمَهُ، وَخَيْرَ أَيَّامِي يَوْمَ الْقَاكَ

“O Allah, let the best of my lifetime be its ending, and my best deed be that which I seal [my life with], and the best of my days the day I meet You.”

Reference: The Dua is taken from Sheikh Omer Sulaiman Dua Compilation.

# Study, Rinse and Repeat

- Please subscribe to our [YouTube Channel](#) to be on top of your studies.
- Please logon to our website <https://alnafi.com/login/>
- Use your username and password to logon
- Please keep an eye on [zone@alnafi.com](mailto:zone@alnafi.com) emails
- Please review the videos of 30 minutes daily
- Please review the notes daily.
- Please take time for clearing up your mind and reflect on how things are proceeding in your studies.



# Python Build-in Functions

Python has number of built in functions.

And they are always available without, importing any external python code via modules or packages.

There are around 68 build-in functions.

# Python Build-in Function's

Built-in Functions				
<code>abs()</code>	<code>dict()</code>	<code>help()</code>	<code>min()</code>	<code>setattr()</code>
<code>all()</code>	<code>dir()</code>	<code>hex()</code>	<code>next()</code>	<code>slice()</code>
<code>any()</code>	<code>divmod()</code>	<code>id()</code>	<code>object()</code>	<code>sorted()</code>
<code>ascii()</code>	<code>enumerate()</code>	<code>input()</code>	<code>oct()</code>	<code>staticmethod()</code>
<code>bin()</code>	<code>eval()</code>	<code>int()</code>	<code>open()</code>	<code>str()</code>
<code>bool()</code>	<code>exec()</code>	<code>isinstance()</code>	<code>ord()</code>	<code>sum()</code>
<code>bytearray()</code>	<code>filter()</code>	<code>issubclass()</code>	<code>pow()</code>	<code>super()</code>
<code>bytes()</code>	<code>float()</code>	<code>iter()</code>	<code>print()</code>	<code>tuple()</code>
<code>callable()</code>	<code>format()</code>	<code>len()</code>	<code>property()</code>	<code>type()</code>
<code>chr()</code>	<code>frozenset()</code>	<code>list()</code>	<code>range()</code>	<code>vars()</code>
<code>classmethod()</code>	<code>getattr()</code>	<code>locals()</code>	<code>repr()</code>	<code>zip()</code>
<code>compile()</code>	<code>globals()</code>	<code>map()</code>	<code>reversed()</code>	<code>__import__()</code>
<code>complex()</code>	<code>hasattr()</code>	<code>max()</code>	<code>round()</code>	
<code>delattr()</code>	<code>hash()</code>	<code>memoryview()</code>	<code>set()</code>	

# Python abs

The syntax of abs() method is:

```
abs(num)
```



# Python abs ()

## **abs()** Parameters

The abs() method takes a single argument:

**num** - number whose absolute value is to be returned. The number can be:

- integer
- floating number
- complex number



# Return value from abs()

- The abs() method returns the absolute value of the given number.
- For integers - integer absolute value is returned
- For floating numbers - floating absolute value is returned
- For complex numbers - magnitude of the number is returned

# abs examples

```
#random Integer
```

```
integer = -20
```

```
print('Absolute value of -20 is:', abs(integer))
```

```
#random floating number
```

```
floating = -30.33
```

```
print('Absolute value of -30.33 is:', abs(floating))
```

# Python bool()

The bool() method converts a value to Boolean (True or False) using the standard truth testing procedure.

`bool([value])`

# bool() parameters

It's not mandatory to pass a value to bool(). If you do not pass a value, bool() returns False.

In general use, bool() takes a single parameter value.

# Return value for bool()

The bool() returns:

False if the value is omitted or false

True if the value is true

# what in bool is considered **false**

The following values are considered false in Python:

None

False

Zero of any numeric type. For example, 0, 0.0, 0j

Empty sequence. For example, (), [], "".

Empty mapping. For example, {}

objects of Classes which has `__bool__()` or `__len__()` method which returns 0 or False

**All other values except these values are considered true.**

# bool examples

```
test = []
```

```
print(test,'is',bool(test))
```

```
test = [0]
```

```
print(test,'is',bool(test))
```

```
test = 0.0
```

```
print(test,'is',bool(test))
```

```
test = None  
print(test,'is',bool(test))
```

```
test = True  
print(test,'is',bool(test))
```

```
test = 'Easy string'  
print(test,'is',bool(test))
```



# Python dir function

The `dir()` method tries to return a list of valid attributes of the object.

The syntax of `dir()` is:

```
dir([object])
```

# dir() Parameters

The dir() takes maximum of one object.

object (optional) - dir() attempts to return all attributes of this object.

# Return Value from dir()

The dir() tries to return a list of valid attributes of the object.

If the object has `__dir__()` method, the method will be called and must return the list of attributes.

If the object doesn't have `__dir__()` method, this method tries to find information from the `__dict__` attribute (if defined), and from type object. In this case, the list returned from dir() may not be complete.

If object is not passed to the dir() method, it returns the list of names in the current local scope.

# Example 1: How dir() works?

```
number = [1, 2, 3]  
print(dir(number))
```

```
print('\nReturn Value from empty dir()')  
print(dir())
```

# Covering all the build-in functions in Python

We are creating 10 different videos to cover all the build-in functions in a detailed manner which will become an add-on to the python primer.

The videos will be shared over the weekend inshAllah.

# جزاك الله

Please send us your questions at [zone@alnafi.com](mailto:zone@alnafi.com) We will only answer our Nafi Members. So please quote your membership number within the email.

Soon we will completely move to the portal to answer any further questions and will remove the email answering function.