

Bahan Ajar

Chapter 3



Materi Pembelajaran

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Programming with Python Raspberry Pi

The official programming language of the Raspberry Pi is Python. Python is a flexible programming language that runs on almost any platform. Thus, a program can be created on a

Windows PC or Mac and run on the Raspberry Pi and vice versa. Python is an elegant, reliable, powerful, and very popular programming language



Exploring the print Function

The “New” print Function In Python v2, print is not a function. It became a function when Python v3 was created.

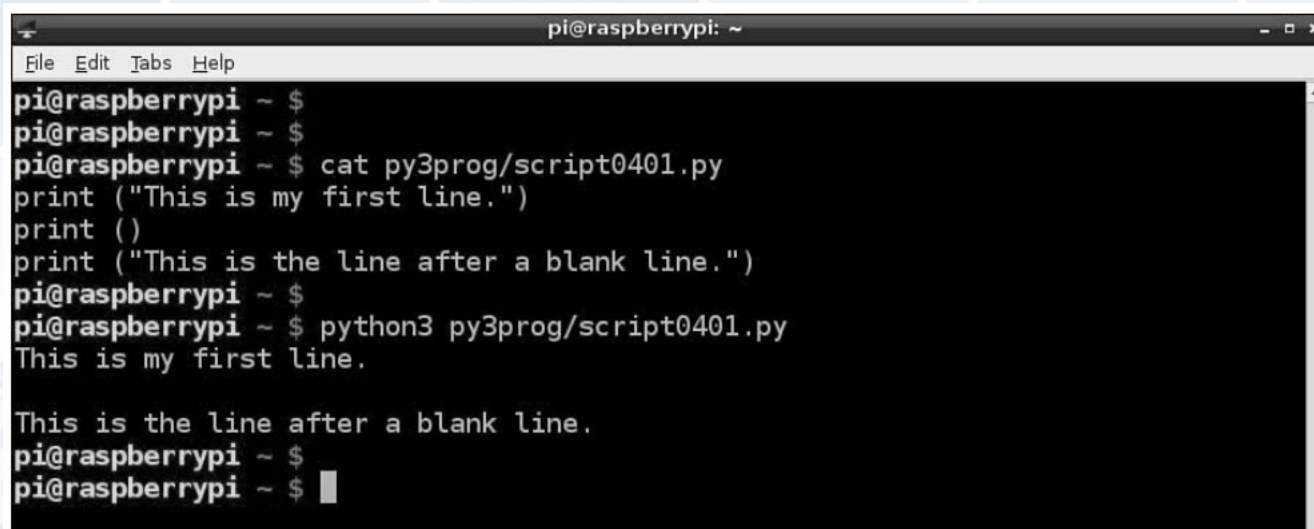
The print function’s task is to output items. The “items” to output are correctly called an argument. The basic syntax of the print function is as follows:

```
print ( argument )
```



Formatting Output with the print Function

Adding a blank line in script output



```
pi@raspberrypi ~  
File Edit Tabs Help  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $ cat py3prog/script0401.py  
print ("This is my first line.")  
print ()  
print ("This is the line after a blank line.")  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $ python3 py3prog/script0401.py  
This is my first line.  
  
This is the line after a blank line.  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $ █
```

Using Triple Quotes

```
>>> print ("""This is line one.  
... This is line two.  
... This is line three.""")  
This is line one.  
This is line two.  
This is line three.  
>>>
```

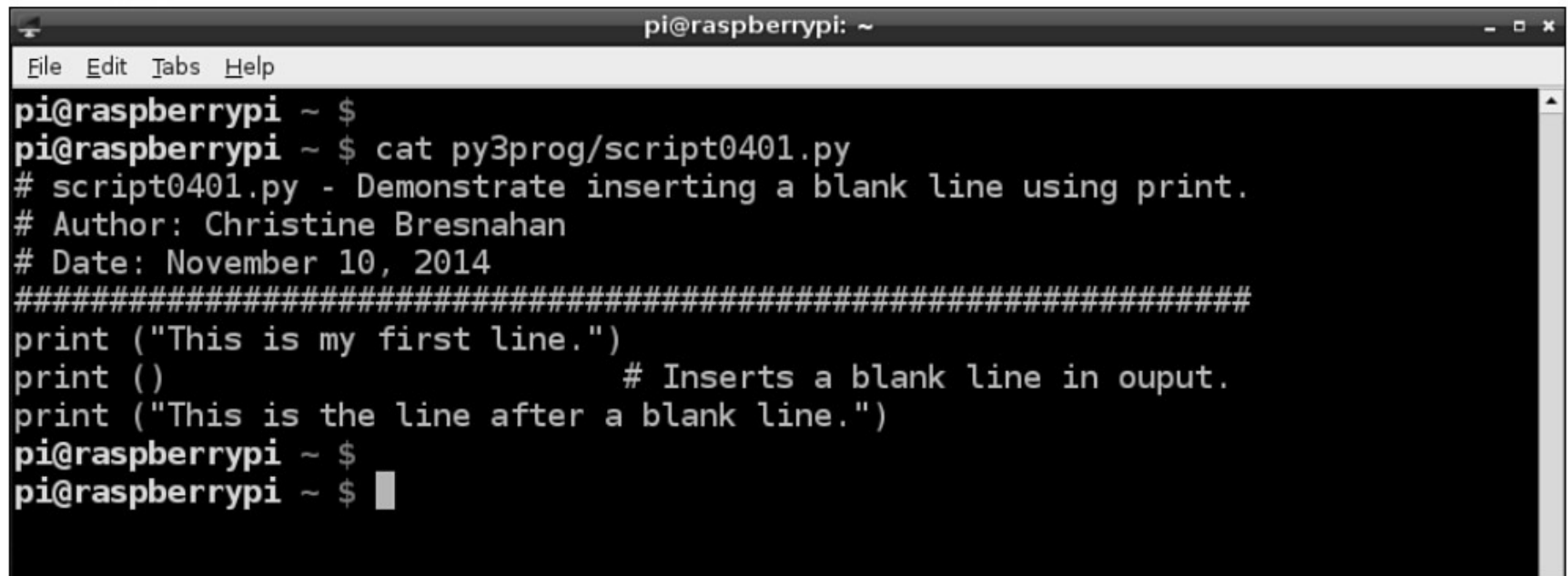
Using an Escape Sequence to Add a Linefeed

```
>>> print ("This is line one.\nThis is line two.\nAnd this is line three.")  
This is line one.  
This is line two.  
And this is line three.  
>>>
```

A Few Python Escape Sequences

Escape Sequence	Description
<code>\'</code>	Displays a single quote in output.
<code>\"</code>	Displays a double quote in output .
<code>\\</code>	Displays a single backslash in output.
<code>\a</code>	Produces a “bell” sound with output.
<code>\f</code>	Inserts a formfeed into the output.
<code>\n</code>	Inserts a linefeed into the output.
<code>\t</code>	Inserts a horizontal tab into the output.
<code>\u####</code>	Displays the Unicode character denoted by the character’s four hexadecimal digits (####).

Creating Comments



```
pi@raspberrypi: ~  
File Edit Tabs Help  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $ cat py3prog/script0401.py  
# script0401.py - Demonstrate inserting a blank line using print.  
# Author: Christine Bresnahan  
# Date: November 10, 2014  
#####  
print ("This is my first line.")  
print () # Inserts a blank line in ouput.  
print ("This is the line after a blank line.")  
pi@raspberrypi ~ $  
pi@raspberrypi ~ $ █
```



Python Keywords

```
>>> import keyword
>>> print (keyword.kwlist)
['False', 'None', 'True', 'and', 'as',
'assert', 'break', 'class', 'continue',
'def', 'del', 'elif', 'else', 'except',
'finally', 'for', 'from', 'global', 'if',
'import', 'in', 'is', 'lambda', 'nonlocal',
'not', 'or', 'pass', 'raise', 'return',
'try', 'while', 'with', 'yield']
>>>
```

Python Basic Data Types

Data Type	Description
float	Floating-point number
int	Integer
long	Long integer
str	Character string or string literal



Tugas Mandiri (teori):

1. Which is better to use with a print function, double quotes or single quotes?
2. The print function is part of the Python standard library and is considered a built-in function. True or false? Why?
3. When is a variable created and assigned a data type?

Tugas Mandiri (prakt):

Tuliskan dan jelaskan script program python untuk mengawali program dan menjalankan program di Raspberry.

end

