

Bahan Ajar

Chapter 14



Materi Pembelajaran

Matakuliah :

INTERFACING PERIPHERAL

Kode Matakuliah : SKO 20416

Prodi : SISTEM KOMPUTER

Dosen Pengampu Matakuliah:

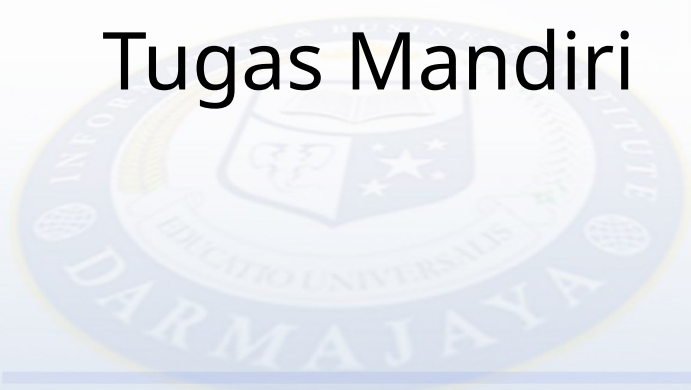
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Tugas Mandiri



Python File Open

The key function for working with files in Python is the `open()` function. The `open()` function takes two parameters; filename, and mode. There are four different methods (modes) for opening a file:

`"r"` - Read - Default value. Opens a file for reading, error if the file does not exist

`"a"` - Append - Opens a file for appending, creates the file if it does not exist

`"w"` - Write - Opens a file for writing, creates the file if it does not exist

`"x"` - Create - Creates the specified file, returns an error if the file exists

In addition you can specify if the file should be handled as binary or text mode

`"t"` - Text - Default value. Text mode

`"b"` - Binary - Binary mode (e.g. images)

Python File Open

Syntax

To open a file for reading it is enough to specify the name of the file:

```
f = open("demofile.txt")
```

The code above is the same as:

```
f = open("demofile.txt", "rt")
```

Because `"r"` for read, and `"t"` for text are the default values, you do not need to specify them.

Open a File on the Server

Assume we have the following file, located in the same folder as Python:

demofile.txt

```
Hello! Welcome to demofile.txt  
This file is for testing purposes.  
Good Luck!
```

To open the file, use the built-in `open()` function. The `open()` function returns a file object, which has a `read()` method for reading the content of the file:

Example

```
f = open("demofile.txt", "r")  
print(f.read())
```

Open a File on the Server

If the file is located in a different location, you will have to specify the file path, like this:

Example

Open a file on a different location:

```
f = open("D:\\myfiles\\welcome.txt", "r")  
print(f.read())
```

Read Only Parts of the File

By default the `read()` method returns the whole text, but you can also specify how many characters you want to return:

Example

Return the 5 first characters of the file:

```
f = open("demofile.txt", "r")  
print(f.read(5))
```

Read Lines

You can return one line by using the `readline()` method:

By calling `readline()` two times, you can read the two first lines:

Example

Read one line of the file:

```
f = open("demofile.txt", "r")
print(f.readline())
```

Example

Read two lines of the file:

```
f = open("demofile.txt", "r")
print(f.readline())
print(f.readline())
```

Close Files

It is a good practice to always close the file when you are done with it.

Example

Close the file when you are finish with it:

```
f = open("demofile.txt", "r")  
print(f.readline())  
f.close()
```

Tugas Mandiri (teori):

1. How can I keep the `.write` method from displaying the number of characters it has written during the running of a Python script?
2. To open a file to be both read and written, which mode should be used in the open function statement?
 - a. `w+`
 - b. `r&w`
 - c. `r+`

Tugas Mandiri (prakt):

Tuliskan script program python dengan fungsi **Operasi File** untuk memodifikasi 6 buah LED di Raspberry Pi.

end

