

File Write Mode

Textbook

File Write Mode



In the last lesson, we learned about using the append mode that adds a line to an existing text file. As a review this is what it looks like.

```
1 file = open("example.txt", "a")
2 file.write("This is the new line we added!")
3 file.close()
```

Write Mode

Using **write mode** is almost the exact same as using **append mode**. The main difference is that write mode replaces everything that was in the text file.

Write mode is done by including the **w** command in the `open()` function.

```
1 file = open("example.txt", "w")
2 file.write("This line replaces everything in this file!")
3 file.close()
```

After running this code, our "example.txt" file will have this text in it:

```
1 This line replaces everything in this file!
```

Creating a New File



Did you know that both the **"write"** and **"append"** modes can also be used to create a brand new text file? If there is no text file with that name it will create a new one.

For example, this code below will create a brand new document, since a file called "new_document.txt" does not currently exist:

```
1 file = open("new_document.txt", "w")
```

Then we can write to, append, read, and close this file just like we did with any other text file.

Writing A Binary File

If you are writing a binary file, use the `wb` mode instead of `w`.

```
1 file = open("new_document.txt", "wb")
```

Checkpoint

File Write Mode

1. Using the write mode, replace the contents of a text file with the following text, `In short, I love to code!`
2. Close that file.
3. Create a new file called `porcupine` by using the write mode.

Requirements:

- Open a text file with the intent to write using a `w`
- Using the write mode, replace the contents of a text file with the following text, `In short, I love to code!`
- Close the file you replaced the contents with.
- Create a new file named `porcupine` by using the write mode.

Questions (8)

1. What does the following code do if a file called "report.txt" doesn't already exist?

MULTIPLE CHOICE

```
file = open("report.txt", "w")
```

Choose the correct answer:

- A. It will create a new text file named report.txt
- B. It will replace everything in the variable named file
- C. It will throw an error
- D. It will run an infinite loop

2. What will the following code do to the text file named practice?

MULTIPLE CHOICE

```
file = open("practice.txt", "a") file.write("Good morning!") file.close()
```

Choose the correct answer:

- A. It will replace everything in the file named practice.txt with "Good morning!"
- B. It will append the line "Good morning!" to the file named practice.txt
- C. It will find all instances of the character "a" in the practice.txt file and replace them with "Good morning!"
- D. It will print "Good morning!"

MULTIPLE CHOICE

3. What will the following code do to the text file named practice?

```
file = open("practice.txt", "w") file.write("Hey you!") file.close()
```

Choose the correct answer:

- A. It will replace everything in the file named practice.txt with "Hey you!"
- B. It will append the line "Hey you!" to the file named practice.txt
- C. It will find all instances of the character "w" in the practice.txt file and replace them with "Hey you!"
- D. It will print "Hey you!"

4. True or false: After you use Python code to create a new text file, you can write to, append, and read that text file like any other text file.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

MULTIPLE CHOICE

5. What does the w stand for in the following code?

```
file = open("example.txt", "w")
```

Choose the correct answer:

- A. write
- B. wash
- C. wreck
- D. web

MULTIPLE CHOICE

6. True or False: The write mode replaces everything that was in the text file.

Choose the correct answer:

- A. True
- B. False

7. What will the following code do if there is no file named tractor?

```
file = open("tractor.txt", "w")
```

Choose the correct answer:

- A. It will throw an error
- B. It will create a file named tractor
- C. It will return a value of null
- D. It will write the word tractor to the last text file opened.

8. Debug the following code:

Code to Debug:

```
1 file = ("example.txt", "w")
2 file.write("I am the king of the world")
3 file.close()
```

Challenges (2)

1. Never Mind

You just sent an email that happens to be in a text file named `email.txt`. You realize that you didn't need to send the email after all.

Write a Python program that will replace the contents of your text file with the words `Never mind`.

Requirements:

- Open a text file with the intent to append using a `w`
- Using the write mode, replace the contents of the file with the following text, `Never mind`
- Close the file you replaced the contents with.

2. Custom Greeting Cards

You are creating an app that allows customers to customize what a greeting card says. You allow them to replace the text in the card with whatever they want!

1. Create a program that asks the user what they want to replace the text file with.
2. Create a variable named `answer` and assign it to an input statement asking the user what they want to say.
3. Create a Python program that replaces the contents of the text file named `report.txt` with whatever the user says.
4. Read the file to make sure it appended correctly.

Requirements:

- Create an input and assign it to a variable named `answer` .
- Open a text file with the intent to write using a `w`
- Write a program that replaces the contents of text file with the variable named `answer` .
- Print the contents of the text file.

Answer Keys & Solutions

Checkpoint Solutions

File Write Mode

```
1 file = open("example.txt", "w")
2 file.write("In short, I love to code!")
3 file.close()
4
5 file = open("porcupine.txt", "w")
```

Questions

1. What does the following code do if a file called "report.txt" doesn't already exist?

MULTIPLE CHOICE

Correct Answer:

- A. It will create a new text file named report.txt ✓ Correct
- B. It will replace everything in the variable named file ✗ Incorrect
- C. It will throw an error ✗ Incorrect
- D. It will run an infinite loop ✗ Incorrect

Explanation:

It's possible to create text files using Python code.

2. What will the following code do to the text file named practice?

MULTIPLE CHOICE

Correct Answer:

- A. It will replace everything in the file named practice.txt with "Good morning!" ✗ Incorrect
- B. It will append the line "Good morning!" to the file named practice.txt ✓ Correct
- C. It will find all instances of the character "a" in the practice.txt file and replace them with "Good morning!" ✗ Incorrect

D. It will print "Good morning!"

✗ Incorrect

Explanation:

Notice the use of "a" instead of "w"

3. What will the following code do to the text file named practice?

MULTIPLE CHOICE

Correct Answer:

A. It will replace everything in the file named practice.txt with "Hey you!"

✓ Correct

B. It will append the line "Hey you!" to the file named practice.txt

✗ Incorrect

C. It will find all instances of the character "w" in the practice.txt file and replace them with "Hey you!"

✗ Incorrect

D. It will print "Hey you!"

✗ Incorrect

Explanation:

Notice the use of "w" instead of "a"

4. True or false: After you use Python code to create a new text file, you can write to, append, and read that text file like any other text file.

MULTIPLE CHOICE

Correct Answer:

A. True

✓ Correct

B. False

✗ Incorrect

Explanation:

Using Python code to create a text file is just like any other way to create a text file.

5. What does the w stand for in the following code?

MULTIPLE CHOICE

Correct Answer:

A. write

✓ Correct

B. wash

✗ Incorrect

C. wreck

✗ Incorrect

D. web

✗ Incorrect

Explanation:

This code is for opening a file in a way that you can write to it

6. True or False: The write mode replaces everything that was in the text file.

MULTIPLE CHOICE

Correct Answer:

A. True

✓ Correct

B. False

✗ Incorrect

Explanation:

Using the write mode will replace everything in the file

7. What will the following code do if there is no file named tractor?

MULTIPLE CHOICE

Correct Answer:

A. It will throw an error

✗ Incorrect

B. It will create a file named tractor

✓ Correct

C. It will return a value of null

✗ Incorrect

D. It will write the word tractor to the last text file opened.

✗ Incorrect

Explanation:

You can create files using Python

8. Debug the following code:

DEBUG CODE

Incorrect Code:

```
1 file = ("example.txt", "w")
2 file.write("I am the king of the world")
3 file.close()
```

Correct Solution:

```
1 file = open("example.txt", "w")
2 file.write("I am the king of the world")
3 file.close()
```

Explanation:

This code is missing the word open

Challenges

1. Never Mind

Solution:

```
1 file = open("email.txt", "w")
2 file.write("Never Mind")
3 file.close()
4
5 file = open("email.txt", "w")
```

2. Custom Greeting Cards

Solution:

```
1 answer = input("What do you want to say to replace the text file?")
2 file = open("example.txt", "w")
3 file.write(answer)
4 file.close()
5
6 file = open("example.txt", "r")
7 print(file.read())
```