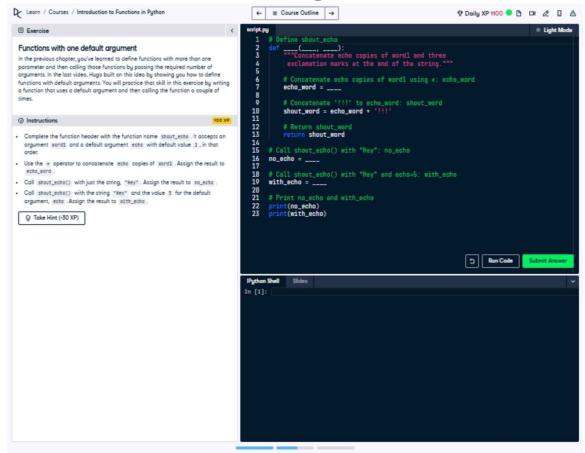
Functions with One Default Argument



Question:

In the previous chapter, you've learned to define functions with more than one parameter and then calling those functions by passing the required number of arguments.

In the last video, Hugo built on this idea by showing you how to define functions with default arguments.

You will practice that skill in this exercise by writing a function that uses a default argument and then calling the function a couple of times.

Instructions:

- 1. Complete the function header with the function name `shout_echo`. It accepts an argument `word1` and a default argument `echo` with default value `1`, in that order.
- 2. Use the `*` operator to concatenate `echo` copies of `word1`. Assign the result to `echo_word`.
- 3. Concatenate `'!!!'` to `echo_word` and assign the result to `shout_word`.

- 4. Return `shout word`.
- 5. Call `shout_echo()` with just the string `"Hey"`. Assign the result to `no echo`.
- 6. Call `shout_echo()` with the string `"Hey"` and the value `5` for the default argument `echo`. Assign the result to `with echo`.
- 7. Print `no echo` and `with echo`.

Answer:

```
# Define shout echo
def shout echo(word1, echo=1):
  """Concatenate echo copies of word1 and three exclamation marks at the
end of the string."""
  # Concatenate echo copies of word1 using *: echo word
  echo word = word1 * echo
  # Concatenate '!!!' to echo word: shout word
  shout word = echo word + '!!!'
  # Return shout word
  return shout word
# Call shout echo() with "Hey": no echo
no echo = shout echo("Hey")
# Call shout echo() with "Hey" and echo=5: with echo
with echo = shout echo("Hey", echo=5)
# Print no echo and with echo
print(no echo)
print(with echo)
```

Explanation:

- 1. def shout_echo(word1, echo=1): This defines a function `shout_echo` with a required parameter `word1` and an optional parameter `echo` with a default value of 1.
- 2. echo_word = word1 * echo Creates a string by repeating `word1`
 exactly `echo` times.
- 3. shout_word = echo_word + '!!!' Appends `'!!!!' to the string

- `echo word`.
- 4. return shout_word Returns the final string `shout_word`.
- 5. no_echo = shout_echo("Hey") Calls `shout_echo` with only the required parameter. Since `echo` is not provided, it uses the default value of 1.
- 6. with_echo = shout_echo("Hey", echo=5) Calls `shout_echo` with both `word1` and `echo`. This creates a string by repeating "Hey" 5 times, followed by `'!!!!'`.
- 7. print(no_echo) Prints the result of `shout_echo("Hey")`, which is `"Hey!!!"`.
- 8. print(with_echo) Prints the result of `shout_echo("Hey", echo=5)`, which is `"HeyHeyHeyHey!!!"`.