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PROBLEM 1: ENCRYPTION (15/15 points)

Next, define the function `applyCoder`, which applies a coder to a string of text.

Test Cases

```
>>> applyCoder("Hello, world!", buildCoder(3))
'Khoor, zruog!'
>>> applyCoder("Khoor, zruog!", buildCoder(23))
'Hello, world!'
```

```
1 def applyCoder(text, coder):
2     """
3     Applies the coder to the text. Returns the encoded text.
4
5     text: string
6     coder: dict with mappings of characters to shifted characters
7     returns: text after mapping coder chars to original text
8     """
9     ### TODO
10    return "".join([coder[c] if c in string.ascii_lowercase + string.ascii_uppercase else c for c in text])
11
```

Correct

Test results

[Hide output](#)

CORRECT

Test 1: `applyCoder('Hello, world!', buildCoder(0))`

Output:

'Hello, world!'

Test 2: `applyCoder('Hello, world!', buildCoder(24))`

Output:

'Fcjjm, umpjb!'

Test 3: `applyCoder('Hello, world!', buildCoder(14))`

Output:

'Vszzc, kcfzr!'

Test 4: applyCoder('Hello, world!', buildCoder(12))

Output:

'Tqxxa, iadxp!'

Test 5: applyCoder('The quiz is... hard!', buildCoder(0))

Output:

'The quiz is... hard!'

Test 6: applyCoder('The quiz is... hard!', buildCoder(24))

Output:

'Rfc osgx gq... fypb!'

Test 7: applyCoder('The quiz is... hard!', buildCoder(14))

Output:

'Hvs eiwn wg... vofr!'

Test 8: applyCoder('The quiz is... hard!', buildCoder(12))

Output:

'Ftq cgul ue... tmdp!'

Test 9: applyCoder('12 jackdaws quizzed my sphinx!?', buildCoder(0))

Output:

'12 jackdaws quizzed my sphinx!?'

Test 10: applyCoder('12 jackdaws quizzed my sphinx!?', buildCoder(24))

Output:

'12 hyaibyuq osgxxcb kw qnfglv!?'

Test 11: applyCoder('12 jackdaws quizzed my sphinx!?', buildCoder(14))

Output:

'12 xoqyrokg eiwnnsr am gdvwb1!?'

Test 12: applyCoder('12 jackdaws quizzed my sphinx!?', buildCoder(12))

Output:

'12 vmowpmie cgullqp yk ebtuzj!?'

Test 13: applyCoder(',jp6mH MeRs1Kr5CvX8TuUk7!4xEnz', buildCoder(0))

Output:

',jp6mH MeRs1Kr5CvX8TuUk7!4xEnz'

Test 14: applyCoder(',jp6mH MeRs1Kr5CvX8TuUk7!4xEnz', buildCoder(24))

Output:

',hn6kF KcPqjIp5AtV8RsSi7!4vC1x'

Test 15: applyCoder(',jp6mH MeRs1Kr5CvX8TuUk7!4xEnz', buildCoder(14))

Output:

',xd6aV AsFgzYf5QjL8HiIy7!41Sbn'

Test 16: applyCoder(',jp6mH MeRs1Kr5CvX8TuUk7!4xEnz', buildCoder(12))

Output:

',vb6yT YqDexWd50hJ8FgGw7!4jQz1'

[Hide output](#)

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