

Problem 1: Write a function that returns a `dict` that stores the number of occurrences of each character in a string.

```
def charcount(in_string):  
    """ Return a dictionary that maps each unique character in  
    in_string to the number of times it appears in the string.  
    Precondition: in_string is a string  
    Example: count("hahah") # => {"a": 3, "h": 2} """
```

Problem 2: Write a function to find the most frequently-appearing character in a given string. If there is a tie, return any one of the most frequent characters. You may use the function you wrote in Problem 1.

```
def strmode(in_str):  
    """ Return the most frequently-appearing character in  
    in_str, or any of the most frequent characters in case of a  
    tie. Precondition: in_str is a string with nonzero length.  
    Examples: strmode('hahah') # => 'h'  
             strmode('who') # => could return 'w', 'h', or 'o'  
    """
```