

Answer on Question #62041 – Programming & Computer Science | Python

You need to design an iterative and a recursive function called `replicate_iter` and `replicate_recur` respectively which will receive two arguments: `times` which is the number of times to repeat and `data` which is the number or string to be repeated.

The function should return an array containing repetitions of the `data` argument. For instance, `replicate_recur(3, 5)` or `replicate_iter(3,5)` should return `[5,5,5]`. If the `times` argument is negative or zero, return an empty array. If the argument is invalid, raise a `ValueError`.

```
# -*- coding: utf-8 -*-

#recursive function
def replicate_recur(a, b):
    #checking for correctness of 'a' type
    if not isinstance(a, int):
        raise ValueError

    #exit from function
    if a <= 0:
        return []

    res = replicate_recur(a - 1, b)

    res.append(b)

    #returning of result
    return res

#iterative function
def replicate_iter(a, b):
    #checking for correctness of 'a' type
    if not isinstance(a, int):
        raise ValueError

    res = []

    for i in range(a):
        res.append(b)

    return res

a, b = (3, 5)

try:
    print replicate_recur(a, b)
except ValueError:
    print "Wrong 'a' type"

try:
    print replicate_iter(a, b)
except ValueError:
    print "Wrong 'a' type"
```

