

Exercise: Convert Decimal Integer to Binary

Challenge yourself to solve the problem in this lesson!

We'll cover the following



- Division by 2 Method
- Coding Time!

In this coding exercise, you are required to use the stack data structure to convert integer values to their binary equivalent.

Division by 2 Method

The slides below show how to use the ***division by 2*** method to compute the binary equivalent for an integer.

$$242 \div 2 = 121 \longrightarrow 0$$

Integer Value from the division Remainder

Divide the number by two.

Extract the non-fractional part from the answer and record the remainder from the division.



Coding Time!

You can build your solution based on ***division by 2*** method. Your solution should return the correct binary equivalent of `dec_num` as a string from the `convert_int_to_bin(dec_num)` in order to pass the tests.

Make sure that you use stack while solving this challenge. The `stack.py` has been imported to the code. You can make use of the implementation while coding your solution. Remove the `pass` statement if you start implementing your solution.

Good luck!

 Show Hint

main.py

stack.py

```
from stack import Stack

def convert_int_to_bin(dec_num):
    s = Stack()

    while dec_num > 0:
        reminder = dec_num % 2
        s.push(reminder)
        dec_num = dec_num // 2

    bin_num = ""
    while not s.is_empty():
        bin_num += str(s.pop())

    return bin_num
```

