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Credit

tl;dr

Implement a program that determines whether a provided credit card number is valid according to Luhn’s algorithm.

```
$ python credit.py
Number: 378282246310005
AMEX
```

Specification

- In `credit.py` in `~/workspace/pset6/credit/`, write a program that prompts the user for a credit card number and then reports (via `print`) whether it is a valid American Express, MasterCard, or Visa card number, exactly as you did in Problem Set 1 (<https://lab.cs50.io/cs50/labs/2019/x/credit/>), except that your program this time should be written (a) in Python and (b) in CS50 IDE.
 - So that we can automate some tests of your code, we ask that your program's last line of output be `AMEX\n` or `MASTERCARD\n` or `VISA\n` or `INVALID\n`, nothing more, nothing less.
 - For simplicity, you may assume that the user's input will be entirely numeric (i.e., devoid of hyphens, as might be printed on an actual card).
 - Best to use `get_int` or `get_string` from CS50's library to get users' input, depending on how you to decide to implement this one.
-

Walkthrough



Usage

Your program should behave per the example below. Assume that the underlined text is what some user has typed.

```
$ python credit.py  
Number: 378282246310005  
AMEX
```

```
$ python credit.py  
Number: 3782-822-463-10005  
Number: foo  
Number: 378282246310005  
AMEX
```

```
$ python credit.py  
Number: 6176292929  
INVALID
```

Testing

Correctness

```
check50 cs50/problems/2019/x/sentimental/credit
```

Style

```
style50 credit.py
```

Staff Solution

`~cs50/2019/x/pset6/credit`

How to Submit

Execute the below, logging in with your GitHub username and password when prompted. For security, you'll see asterisks (*) instead of the actual characters in your password.

```
submit50 cs50/problems/2019/x/sentimental/credit
```

You can then go to <https://cs50.me/cs50x> (<https://cs50.me/cs50x>) to view your current scores!

Hints

Test out your program with a whole bunch of inputs, both valid and invalid. (We certainly will!) Here are a few card numbers that PayPal recommends for testing:

<https://developer.paypal.com/docs/classic/payflow/payflow-pro/payflow-pro-testing/#credit-card-numbers-for-testing>

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Google (or perhaps a roommate's wallet) should turn up more. (If your roommate asks what you're doing, don't mention us.) If your program behaves incorrectly on some inputs, time to debug!