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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

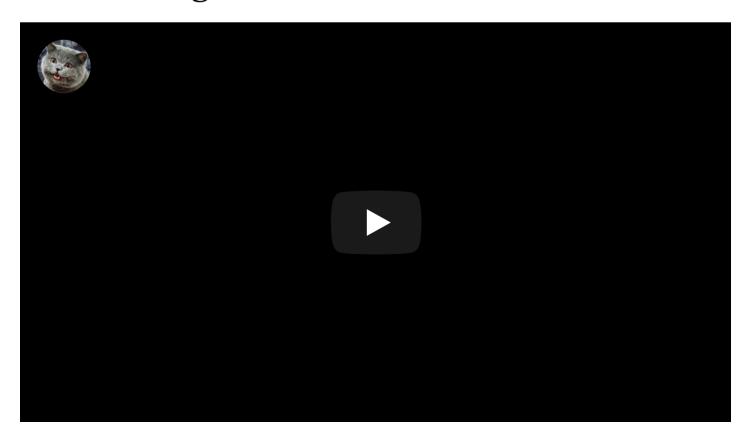
Number: 378282246310005

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 <a href="https://cs50.me/cs50x">https://cs50.me/cs50x</a> (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

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

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!