

# Laboratory: Classes

Create a class Name with a constructor and a repr and str dunder. Each instance has a field first\_name and a field last\_name. The outputs should be for repr

```
<Name: self.first_name=Thomas, self.last_name=Schwarz>
```

and for str

```
Name: Thomas Schwarz.
```

Here is how it starts:

```
class Name:
    def __init__(self, first_name, last_name):
        self.first_name = first_name
        self.last_name = last_name
```

Create a class Currency that internally stores an amount in one hundredth of the main currency, e.g. in cents for dollars and paise for rupees. The constructor takes a floating point number that represents an amount in dollars or rupees.

```
class Currency:
    ''' stores amounts as integers representing cents '''
    def __init__(self, amount, curr = 'US$'):
        self.currency = curr
        self.cents = round(amount*100)
    def __str__(self):
        if self.cents >= 0:
            return "{} {}.{:02d}".format(self.currency, self.cents//
                                         100, self.cents%100)
        else:
            return "{} -{}.{:02d}".format(self.currency,
                                         abs(self.cents)//100,
                                         abs(self.cents%100))
    def __repr__(self):
        return '<Currency: cents={}, currency={}>'.format(self.cents,
                                                         self.currency)
    def __add__(self, other):
        retVal = Currency(0, self.currency)
        retVal.cents = self.cents+other.cents
        return retVal
    def __iadd__(self, other):
        self.cents += other.cents
        return self
    def __rmul__(self, fl_nr):
```