Group Exercise 07: Conditional Statements
CPSC 301 - 2016W2

Write the Python code for the body of the following function to behave according to what is described in the docstring:

```python
#Solution 1 – shown in class
def discount(purchase):
    """(float) -> float

    Returns the discount for the given purchase according to the following rules:
    - for purchases $100 or less the discount is 5% of the purchase
    - for purchases over $500 the discount is 15%
    - for purchases over $100 but no more than $500 the discount is 10% of the purchase value

    purchase : the amount purchased.
    
    >>> discount(100.0)
    5.0
    >>> discount(300.0)
    30.0
    discount(1000.0)
    150.0
    ""
    if purchase <= 100 :
        return purchase * 0.05
    elif purchase <= 500 :
        return purchase * 0.10
    else :
        return purchase * 0.15
```
# An Alternative Solution – accounting for the implicit precondition
# (purchase should be greater than 0)
def discount(purchase):
    '''(float) -> float

    Returns the discount for the given purchase according to the following rules:
    - for purchases $100 or less the discount is 5% of the purchase
    - for purchases over $500 the discount is 15%
    - for purchases over $100 but no more than $500 the discount
      is 10% of the purchase value
    purchase : the amount purchased.
    
    >>> discount(100.0)
    5.0
    >>> discount(300.0)
    30.0
    discount(1000.0)
    150.0
    '''

    if purchase <= 0 :
        return 0
    elif purchase <= 100 :
        return purchase * 0.05
    elif purchase <= 500 :
        return purchase * 0.10
    else :
        return purchase * 0.15