Activity 3 - Code Review Hands On

Code Snippets to Review

You will need to provide feedback as demonstrated in the assignment description for the following five snippets. Please use this template document to complete this assignment. You will need to provide written feedback and also “corrected” code just like in the examples in the assignment description.

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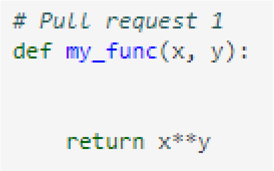
Snippet 1



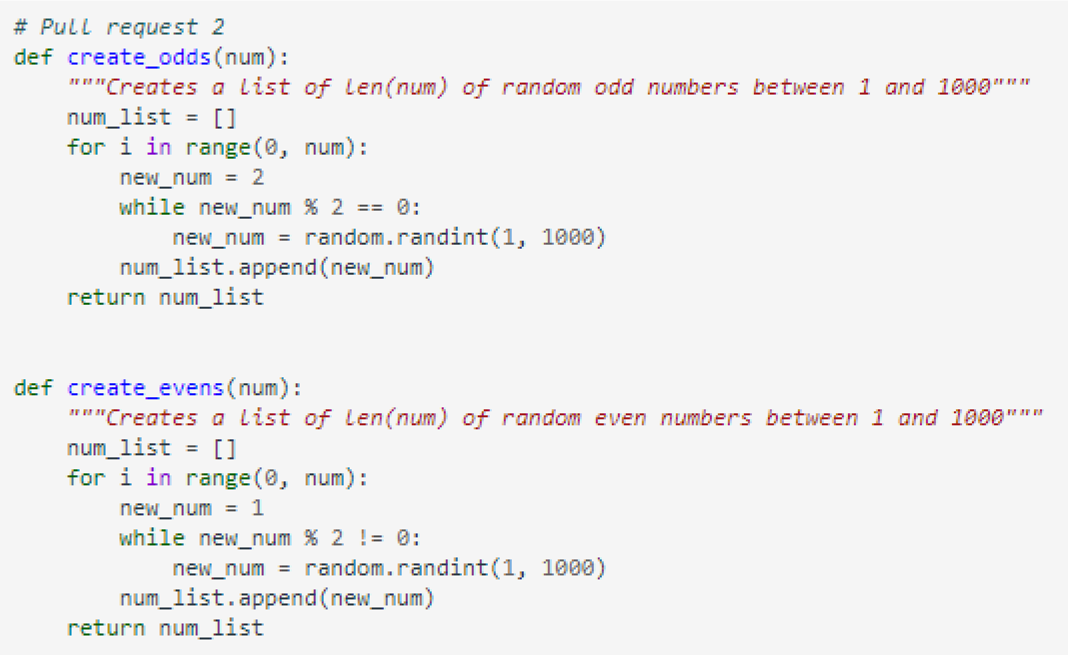
```
# Pull request 1
def my_func(x, y):


    return x**y
```

Feedback: The code is tidy and follows the style guide. The name of the function does not provide much information on what exactly it does. It appears to be a function that takes two variables, x and y, and returns the result of x raised to the power of y. The variables may benefit from being assigned names to represent what they mean and/or commenting to let others understand the intent of the function.

Corrected Code:

```
def my_func(val, pwr):
    “””Returns val raised to the power of pwr”””
    return val**pwr
```

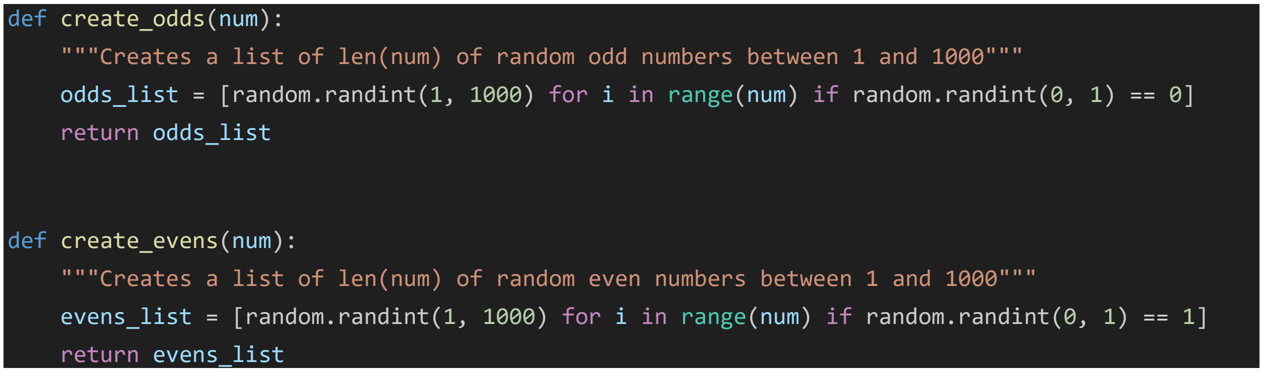
Snippet 2



```python
# Pull request 2
def create_odds(num):
    """Creates a list of len(num) of random odd numbers between 1 and 1000"""
    num_list = []
    for i in range(0, num):
        new_num = 2
        while new_num % 2 == 0:
            new_num = random.randint(1, 1000)
        num_list.append(new_num)
    return num_list


def create_evens(num):
    """Creates a list of len(num) of random even numbers between 1 and 1000"""
    num_list = []
    for i in range(0, num):
        new_num = 1
        while new_num % 2 != 0:
            new_num = random.randint(1, 1000)
        num_list.append(new_num)
    return num_list
```

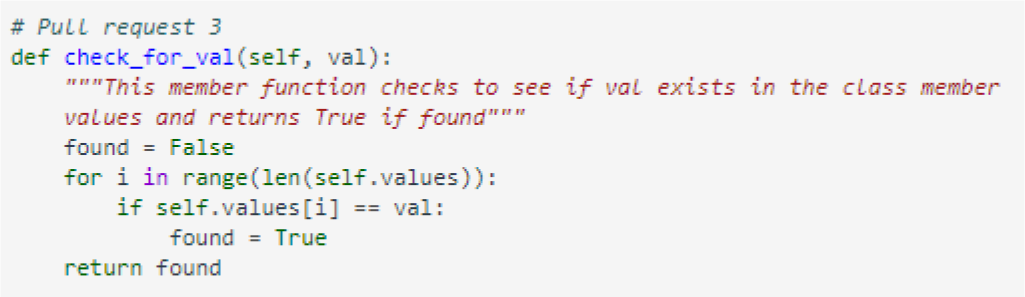
Feedback: The function names are clear about the intent and the code is formatted to be easy to read and understand what is happening. The descriptions give a concise description of the intent of each function, and they both work as described. Have you considered trying to expedite your code and do all of each function in a shorter amount of code. Possibly creating the list of numbers within the definition.

Corrected Code:



```python
def create_odds(num):
    """Creates a list of len(num) of random odd numbers between 1 and 1000"""
    odds_list = [random.randint(1, 1000) for i in range(num) if random.randint(0, 1) == 0]
    return odds_list


def create_evens(num):
    """Creates a list of len(num) of random even numbers between 1 and 1000"""
    evens_list = [random.randint(1, 1000) for i in range(num) if random.randint(0, 1) == 1]
    return evens_list
```

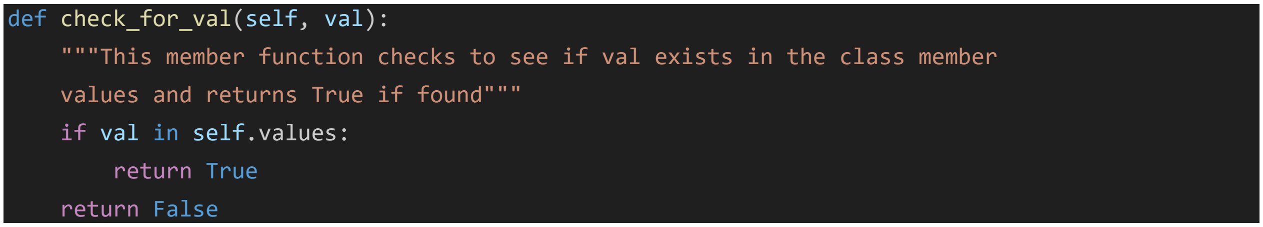
Snippet 3



```
# Pull request 3
def check_for_val(self, val):
    """This member function checks to see if val exists in the class member
    values and returns True if found"""
    found = False
    for i in range(len(self.values)):
        if self.values[i] == val:
            found = True
    return found
```

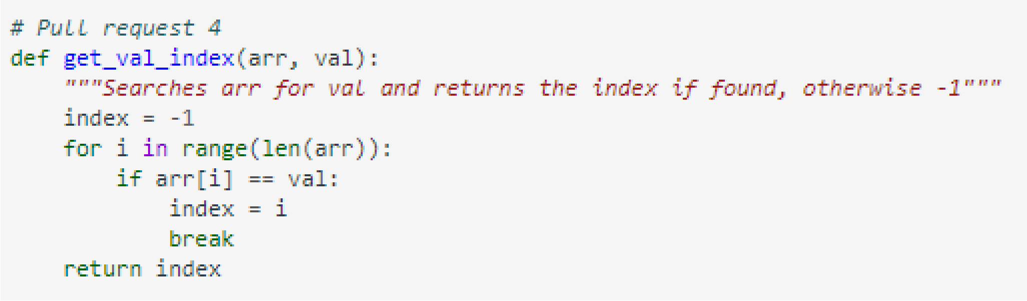
Feedback: I like the use of the descriptive note or docstring to let the user. The purpose of finding if a “val” is present in the parent Classes “values” and returns a bool if it is or not in it. It may be a good idea to try a more expedited approach and instead of iterathrough the entire range of values, an utilize the “in” operator.

Corrected Code:



```
def check_for_val(self, val):
    """This member function checks to see if val exists in the class member
    values and returns True if found"""
    if val in self.values:
        return True
    return False
```

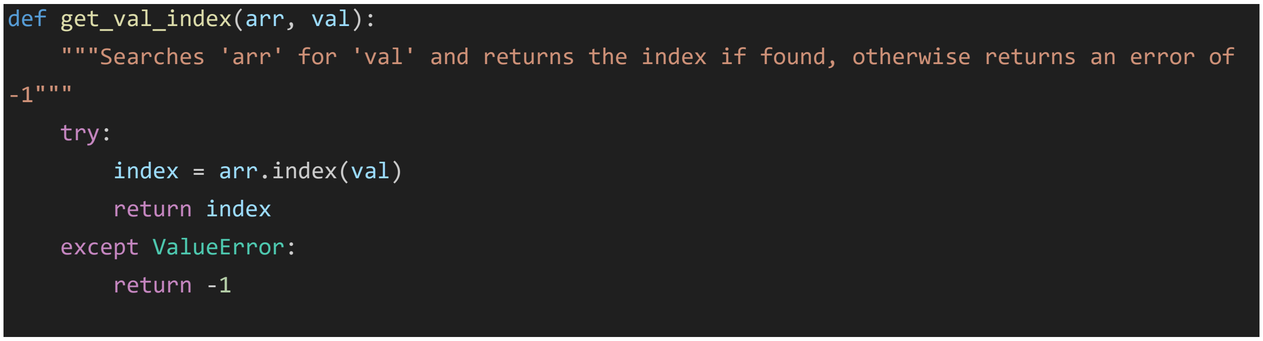
Snippet 4



```
# Pull request 4
def get_val_index(arr, val):
    """Searches arr for val and returns the index if found, otherwise -1"""
    index = -1
    for i in range(len(arr)):
        if arr[i] == val:
            index = i
            break
    return index
```

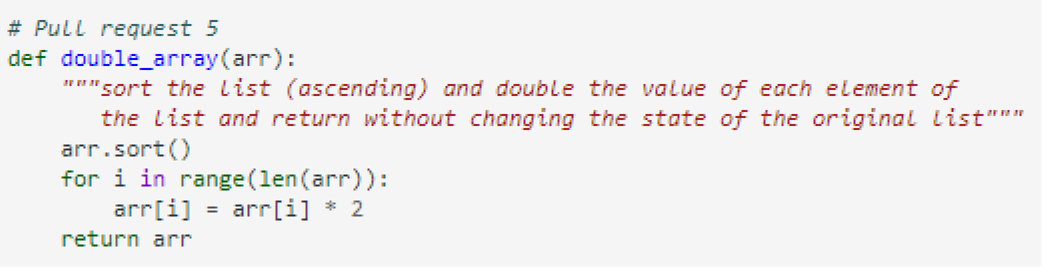
Feedback: The code seems to be searching through an array(“arr”) for a value(“val”), and giving the user back the placement of the value, if it is found. The function itself can be altered possibly to use the index() option with the array or list. It would return the placement of the first appearance of the given value. One other piece of input would be to add error handling that returns a “-1” instead, it does not change the functionality of the code, but would possibly make more sense to the user.

Corrected Code:



```python
def get_val_index(arr, val):
    """Searches 'arr' for 'val' and returns the index if found, otherwise returns an error of
-1"""
    try:
        index = arr.index(val)
        return index
    except ValueError:
        return -1
```

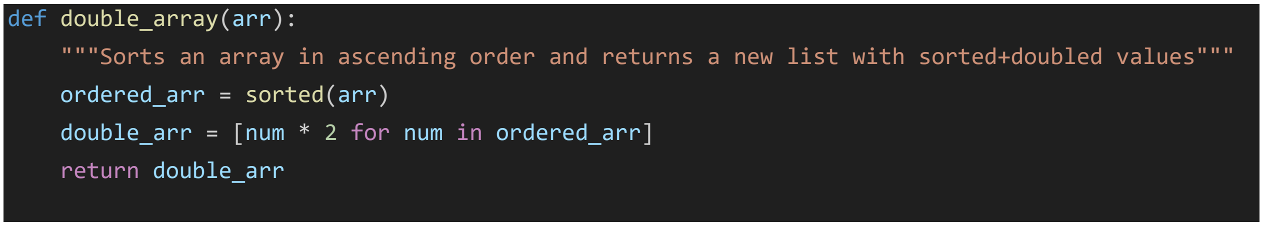
Snippet 5



```python
# Pull request 5
def double_array(arr):
    """sort the list (ascending) and double the value of each element of
       the list and return without changing the state of the original list"""
    arr.sort()
    for i in range(len(arr)):
        arr[i] = arr[i] * 2
    return arr
```

Feedback: The desired output of the code, the way I understand it, is almost produced, as well as the code is formatted clearly and annotated well to comprehend the goal. The intent of the code is to sort a list, while doubling the value of every value, but returning the double valued list to the user without changing the state of the original list, So sorting and returning a list of the values in the list doubled. If this intent is correct, then a minor suggestion would be to create a new array to double and return to the user, to keep the original list in tact, and giving the computer something to sort and double, for extra code clarity.

Corrected Code:



```python
def double_array(arr):
    """Sorts an array in ascending order and returns a new list with sorted+doubled values"""
    ordered_arr = sorted(arr)
    double_arr = [num * 2 for num in ordered_arr]
    return double_arr
```