

MIDTERM EXAM

Create an account in Github

Create a directory: Python Midterm Examination

Upload all your source code inside the directory

Please include your explanation in the exam, follow instructions provided below.

Clearly explain the function of the source code.

Make sure that the activity is named into your specific activity, example: **Edwin_Pascua_Exam_1.ipynb**

Creating list, f string, append, remove, operators, if condition using python, understand and execute the requirements as stated in the following:

Exam_Part2.ipynb

Run the code and make sure to execute very well. Find the errors and fix the errors. Explain what was observed during the execution of the code below.

Markdown CELL1



Python CELL1

```
#Make a program that tells the user if the number in the list is even or odd.

numbers = [1, 2, 3, 4, 5, 6]

for number in numbers:
    if (number%2) == 0:
        print(f"{number} is even")
    else:
        print(f"{number} is odd")
```

Python CELL2

```
numbers = [1, 2, 3, 4, 5, 6]
evens = [ ]
odds = [ ]

for number in numbers:
    if (number%2) == 0:
        evens.append(number)

for number in numbers:
    if (number%2) != 0:
        odds.append(number)

print(evens)
```

```
print(odds)
```

Python CELL3

```
numbers = [1, 2, 3, 4, 5, 6]
doubles = [ ]
for number in numbers:
    number *= 2
    doubles.append(number)
print(doubles)
```

Python CELL4

```
numbers = [1, 2, 3, 4, 5, 6]

evens = [number for number in numbers if (number % 2) == 0]
odds = [number for number in numbers if (number % 2) != 0]

print(evens)
print(odds)
```

Python CELL5

```
numbers = [1, 2, 3, 4, 5, 6]
doubles = [number * 2 for number in numbers]
print(doubles)
```

Python CELL6

```
# Make a program that counts the length of each name and assign them to a list

name_lengths = []
names = ["alice", "bob", "carol"]
name_lengths = [len(name) for name in names]

print(name_lengths)
```

Python CELL7

```
# unpacking

record = ["alice", 5]

#name, length = record
name, length, gender = record

print(f"{name} have a length of {length}")
```

Python CELL8

```
records = [
    ["alice", 5],
    ["bob", 3],
    ["carol", 5],
]

for name, length in records:
    print(f"{name} have a length of {length}")
```

Python CELL9

```
names = ["alice", "bob", "carol"]
name_lengths = [5, 3, 5]

for name, length in zip(names, name_lengths):
    print(f"{name} have a length of {length}")

print (zip(names, name_lengths))
print (list(zip(names, name_lengths)))
```

Python CELL10

```
names = ["alice", "bob", "carol", "marvin"]
name_lengths = [5, 3, 5]
genders = ["female", "male", "female"]
ages = [15, 22, 34]

for name, length, gender, age in zip(names, name_lengths, genders, ages):
    print(f"{name} have a length of {length}. They are {gender}. Ages are {age}")
print(filtered)

# 200, 100, 43
# ambiguous instruction
```