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5a. Input the string "Python" as a list of characters from console, delete at least 2 characters, reversetheresultant string, and print it.

Sample input:

•python

Sample output:

• htyp

```
#Input the string "Python" as a list of characters from console, delete at least 2 characters, reversetheresultant string, and print it.
val =input('Enter your value:')
print(val)
del_val = val[:-2]
print(del_val)
rev_val = del_val[::-1]
print(rev_val)
```

```
Enter your value:python
python
pyth
htyp
```

b. Take two numbers from user and perform at least 4 arithmetic operations on them.

```
[ ] #Take two numbers from user and perform at least 4 arithmetic operations on them.
    num1 = int(input('Enter the first number:'))
    num2 = int(input('Enter the second number:'))
    print(num1 ** num2)
    print(num1 // num2)
    print(num1 / num2)
    print(num1 % num2)
```

```
Enter the first number:3
Enter the second number:4
81
0
0.75
3
```

6. Write a program that accepts a sentence and replace each occurrence of ‘python’ with ‘pythons’.

- Sample input:
- I love playing with python
- Sample output:
- I love playing with pythons

```
[ ] from os import replace
    #Write a program that accepts a sentence and replace each occurrence of ‘python’ with ‘pythons’.
    val = input('Enter the sentence:')
    mod_val = val.replace('python','pythons')
    print(mod_val)
```

```
Enter the sentence:I love playing with python
I love playing with pythons
```

7 . Use the if statement conditions to write a program to print the letter grade based on an input class score. Use the grading scheme we are using in this class.

```
[ ] # Use the if statement conditions to write a program to print the letter grade based on an input class score.
    score = float(input('Enter your class score:'))
    if score >= 90.0:
      print('A')
    elif score >= 80.0:
        print('B')
    elif score >= 70.0:
          print('C')
    elif score >= 60.0:
            print('D')
    else:
              print('F')
```

```
Enter your class score:69.9
D
```

8. Write a code that appends the type of elements from a given list.

Input

x = [23, ‘Python’, 23.98]

Expected output

[23, 'Python', 23.98]

[<class ‘int’>, <class ‘str’>, <class ‘float’>]

```
[ ] # Write a code that appends the type of elements from a given list.
    x = [23, 'Python', 23.98]
    types =[]
    for char in x:
      types.append(type(char))
    print(x)
    print(types)
```

```
[23, 'Python', 23.98]
[<class 'int'>, <class 'str'>, <class 'float'>]
```

9. IT_companies = {'Facebook', 'Google', 'Microsoft', 'Apple', 'IBM', 'Oracle', 'Amazon'}

A = {19, 22, 24, 20, 25, 26}

B = {19, 22, 20, 25, 26, 24, 28, 27}

age = [22, 19, 24, 25, 26, 24, 25, 24]

- Find the length of the set IT_companies
- Add 'Twitter' to IT_companies
- Insert multiple IT companies at once to the set IT_companies
- Remove one of the companies from the set IT_companies
- What is the difference between remove and discard
- Join A and B
- Find A intersection B
- Is A subset of B
- Are A and B disjoint sets
- Join A with B and B with A
- What is the symmetric difference between A and B
- Delete the sets completely
- Convert the ages to a set and compare the length of the list and the set.

```
IT_companies = {'Facebook', 'Google', 'Microsoft', 'Apple', 'IBM', 'Oracle', 'Amazon'}
A = {19, 22, 24, 20, 25, 26}
B = {19, 22, 20, 25, 26, 24, 28, 27}
age = [22, 19, 24, 25, 26, 24, 25, 24]

#Find the length of the set IT_companies
print(len(IT_companies))
#Add 'Twitter' to IT_companies
IT_companies.add('Twitter')
print(IT_companies)
#Insert multiple IT companies at once to the set IT_companies
IT_companies.update(['TCS','CGI','Deloitte'])
print(IT_companies)
#Remove one of the companies from the set IT_companies
IT_companies.remove('TCS')
print(IT_companies)
#What is the difference between remove and discard
#remove - It removes the element from the set. If that element doesn't present in the set then it raise a Keyerror.
#discard - It removes the element from the set. If that element doesn't present in the set, then it does nothing.
#Join A and B
C = A.union(B)
print(C)
#Find A intersection B
print(A.intersection(B))
# Is A subset of B
print(A.issubset(B))
# Are A and B disjoint sets
print(A.isdisjoint(B))
# Join A with B and B with A
print(A.union(B))
print(B.union(A))
```

```
#What is the symmetric difference between A and B
print(A.symmetric_difference(B))
# Delete the sets completely
del IT_companies
del A
del B
# Convert the ages to a set and compare the length of the list and the set.
ages_set = set(age)
print(len(age))
print(len(ages_set))
```

```
7
{'Apple', 'Oracle', 'Microsoft', 'Google', 'IBM', 'Twitter', 'Amazon', 'Facebook'}
{'Deloitte', 'Twitter', 'Amazon', 'CGI', 'Apple', 'Oracle', 'TCS', 'Microsoft', 'Google', 'IBM', 'Facebook'}
{'Deloitte', 'Twitter', 'Amazon', 'CGI', 'Apple', 'Oracle', 'Microsoft', 'Google', 'IBM', 'Facebook'}
{19, 20, 22, 24, 25, 26, 27, 28}
{19, 20, 22, 24, 25, 26}
True
False
{19, 20, 22, 24, 25, 26, 27, 28}
{19, 20, 22, 24, 25, 26, 27, 28}
{27, 28}
8
5
```