

**2**

```
In [2]: # string = 'hello world 'reverse the given string.
        for i in reversed('hello world'):
            print(i,end='')
```

dlrow olleh

**3**

```
In [5]: # S=" ASjhdbgjhdBFYYJGJYTFJHGghdbhj%%6teyt894yt83yt87yt87ye". find the unique values in the given
        S1 = "ASjhdbgjhdBFYYJGJYTFJHGghdbhj%%6teyt894yt83yt87yt87ye"
        unique_values = set(S1)
        print(f"Unique values in the string:{unique_values}")
```

Unique values in the string: {'9', 'Y', 'h', 't', 'e', '%', '8', 'F', 'j', '4', 'T', 'J', 'y', 'G', 'H', '7', '3', 'A', '6', 'd', 'S', 'g', 'b'}

**1**

```
In [19]: phone_number = input("Please enter your phone number: ")
        digits = [int(digit) for digit in phone_number if digit.isdigit()]
        unique_digits = list(set(digits))
        print("Number of unique digits in the phone number:", len(unique_digits))
        print("Unique digits:", unique_digits)
```

Please enter your phone number: 7789905114  
 Number of unique digits in the phone number: 7  
 Unique digits: [0, 1, 4, 5, 7, 8, 9]

**4**

```
In [12]: # range function is not count last number (Ending number)
        # only 1 to 100 is counted

        for i in range(2,101):
            for j in range(2,101):
                if i%j == 0:
                    break
            if i == j:
                print(i,end=",")
```

2,3,5,7,11,13,17,19,23,29,31,37,41,43,47,53,59,61,67,71,73,79,83,89,97,

**5**

```
In [14]: with open("names.txt", "a") as file:

        file.write("Your Name\n")
```

## 6

```
In [15]: my_dict = {"name": "Aditya", "age": 30, "city": "hyd"}
keys = my_dict.keys()
values = my_dict.values()

print("Keys:", keys)
print("Values:", values)
```

```
Keys: dict_keys(['name', 'age', 'city'])
Values: dict_values(['Aditya', 30, 'hyd'])
```

## 7

**Explain the list and tuple with one basic program. Explain the difference between them.**

```
In [ ]: list are created using [] brackets.
list are mutable.
you can add remove modify in a LIST .
```

```
In [17]: l1=[1,2,3,4]
type(l1)
```

Out[17]: list

```
In [ ]: # TUPLE
Tuples are created using parentheses ( ).
tuple are immutable.
you can add, remove ,modify elements.
```

```
In [18]: t1=(2,3,4,5,6)
type(t1)
```

Out[18]: tuple

## 8

```
In [ ]: # mutable
Mutable objects are modified and created .
Examples of mutable objects in Python include lists, dictionaries, and sets.
# immutable
Immutable objects are cannot be modified after they are created.
Examples of immutable objects in Python include integers, floats, strings, tuples, and frozensets
```