#lec #3.2

Rising codeers Eng

8) Range.
9) List.
10) Tuple.

} + append function.
- remove function.

8] range datatype

"create & manipulate a range of numbers."

```
#Define range from 1 to 5
my_range = range(1,6)

#printing the elements in the range
for num in my_range:
    print(num)
```

Exp 'range(1,6)' creates a range that includes no's from 1 up to (but not including) 6. The loop then iterates through each no in the range and prints it.

Note :→

"range" function creates numbers one after the other as they're needed, which helps save computer memory when working with big sets of numbers.

9] List datatype

"List is a data structure that can hold a collection of items. Each items can be any data type, and they have a specific position within the list."

Note

"Lists are mutable"

```
# use of roll-no.
Roll-no = [100, 200, 30, 50]

# creating list of strings
fruits = ["apple", "banana", "strawberry"]

# mixed - type list.
mixed - list = ["Hello", 3.10, 500, True]

# Accessing elements in a list using index
~~fruit = f~~
first - fruit = fruits[0]
second - number = ~~num~~ Roll-no [1]
```

```
# Modifying elements in a list
fruits[1] = "orange"

# Adding elements to the end of a list
numbers.append(6)

# Removing elements from a list
mixed_list.remove("Hello")

# checking if an element is in a list
if "apple" in fruits:
    print("Apple is in the list!")

# Length of list..
list_length = len(numbers)
```

☆ Append function ⇒ used to add
☆ remove function ⇒ used to remove.

10] Tuple datatype

"data structure that can hold a collection of elements of different types. Unlike lists, tuples are immutable.

☆ Used to group related data together,

person = ("John", 30, "New York")

person ⇒ Tuple. contains 3 elements, string "John" Integer (30), another string "New York".

elements ordered can be accessed using indexing like person[0] to get john.

person[1] to get 30.