

AI ML

ASSIGNMENT-1

Task 1:-

- Create two list and join those two list.

→ Here are *two ways* to create two lists and join them in python:

1. *Using the + operator*:

You can use the + operator to concatenate two lists together, creating a new list that contains all the elements from both lists.

Here's an example:

python

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

```
combined_list = list 1 + list 2
```

```
Print(combined_list)
```

The will output: '[1, 2, 3, 4, 5, 6]'²³

2. *Using list unpacking*:

Another way to combine two lists is by unpacking all items from the lists you want to combine. By using the * operator you can access all the items in both lists and unpack them into a third list.

Here's an example:

python

```
list 1 = [1, 2, 3]
```

```
list 2 = [4, 5, 6]
```

```
combined_list = [*list 1, *list 2]
```

```
Print(combined_list)
```

The will output: '[1, 2, 3, 4, 5, 6]'.

- with if statement find the even numbers.

→ With ~~certainly~~! You can use an ~~* if statement *~~ to check if a number is odd or even in python. Here's an example code snippet that demonstrates this:

python

```
num = int (input("enter a number;"))
if (num % 2) == 0
    print (" {0} is an even number .". format
           (num))
```

else:

```
    print (" {0} is an odd number.". format (num))
```

in this code, we take an input number from the user using the 'input()' function we then use the modulo operator '%' to check if the number is divisible by 2. If the remainder is 0, the number is even; otherwise it is odd.

Task - 3:

- Create a dictionary with 3 keys and 2 values for each key.

→ Certainly ! Here's an example code snippet that creates a dictionary with 3 keys and 2 values for each key:

```
python  
my-dict = {'Key1': ['value1', 'value2'],  
           'Key2': ['value3', 'value4'],  
           'Key3': ['value5', 'value6']}  
print(my-dict)
```

In this code, we create a dictionary called 'my-dict' with 3 keys ('Key1', 'Key2' and 'Key3') and 2 values for each key. The values are stored as lists. Which are enclosed in square brackets and separated by commas. We then print the dictionary using the 'print()' function.

Task 4:

- Create a function with if statement which is used to find the odd number in python.

→ Example of a python function that uses an 'if statement' to determine whether a number is odd or even:

python

```
def check_odd_or_even(num):
```

```
    if num % 2 == 0:
```

```
        print(f"{num} is even")
```

```
    else:
```

```
        print(f"{num} is odd")
```

Example usage

```
check_odd_or_even(18) #
```

output: 18 is even.

In this example, the function 'check_odd_or_even' takes an input number 'num' and checks if it is divisible by 2 using the modulo operator '%'. If the remainder is 0, the number is even, otherwise it is odd. The function then prints the result accordingly.

Task-5:

- Write a python function to sum all the numbers in a list.

Sample list: (8, 2, 3, 0, 7)

Expected output: 20

→ python

```
def sum_list(lst):  
    return sum(lst)
```

Example usage

```
sample_list = [8, 2, 3, 0, 7]
```

```
Print (sum_list(sample_list))
```

output: 20

In this example, the function 'sum_list' takes a list 'lst' as input and returns the sum of all the numbers in the list using the built-in 'sum()' function. The function then prints the result.

Alternatively, you can use a loop to iterate over the list and add up the numbers one by one. Here's an example:

python

```
def sum_list(lst):  
    total = 0  
    for num in lst:  
        total += num  
    return total
```

Example, using

sample - list = [8, 2, 3, 0, 7]

Print (sum - list (sample - list))

output : 20.