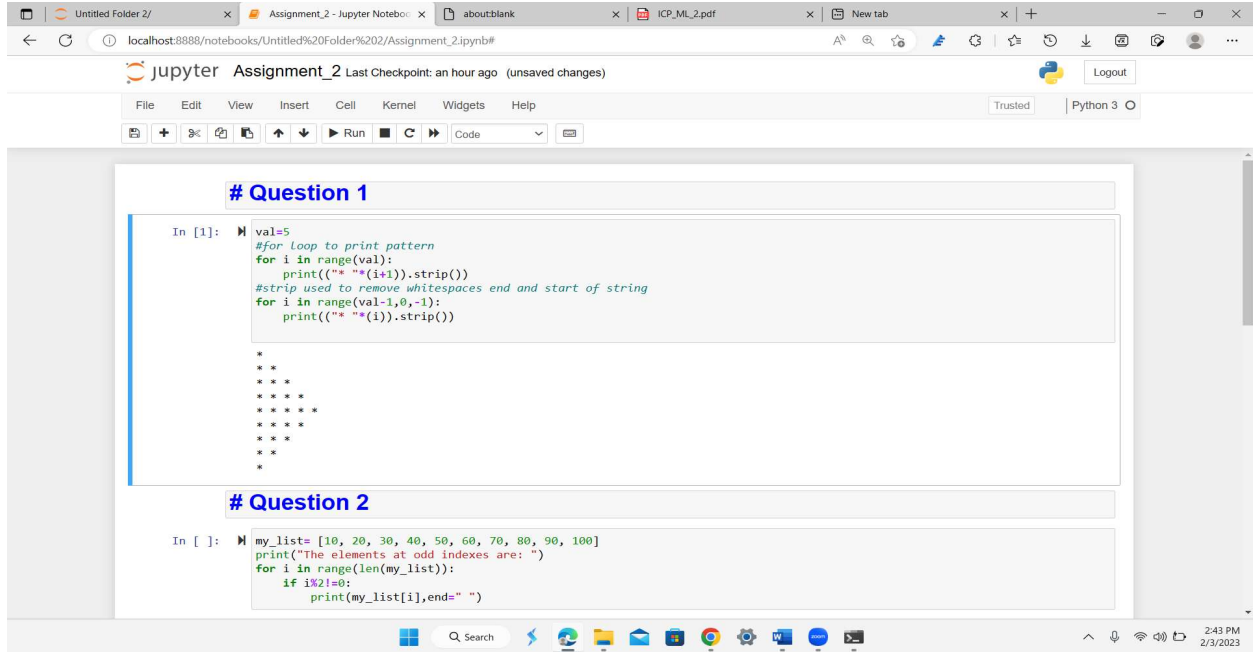


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Video Link: https://drive.google.com/file/d/1-VXOmVBspL3HG_jAaPljCLOgJ9SqUC64/view?usp=share_link

Question 1:



The screenshot shows a Jupyter Notebook interface with two code cells. The first cell, titled "# Question 1", contains Python code that prints a pattern of asterisks. The second cell, titled "# Question 2", contains Python code that prints elements at odd indexes from a list.

```
# Question 1

In [1]: val=5
        #for loop to print pattern
        for i in range(val):
            print((" "*(i+1)).strip())
        #strip used to remove whitespaces end and start of string
        for i in range(val-1,0,-1):
            print((" "*(i)).strip())

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# Question 2

In [ ]: my_list= [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
        print("The elements at odd indexes are: ")
        for i in range(len(my_list)):
            if i%2!=0:
                print(my_list[i],end=" ")
```

Question 2:

```

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# Question 2

In [2]: my_list= [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
print("The elements at odd indexes are: ")
for i in range(len(my_list)):
    if i%2!=0:
        print(my_list[i],end=" ")

The elements at odd indexes are:
20 40 60 80 100

# Question 3

In [ ]: x=input().split()
types=[]
#initially the user takes as input as string and converts to original type of the value
for i in range(len(x)):
    if '.' in x[i] and not(x[i].isalpha()):
        x[i]=float(x[i])
    elif x[i].isnumeric():
        x[i]=int(x[i])
#type function is used to determine type of an list element
for i in range(len(x)):
    types.append(type(x[i]))

```

Question 3:

```

The elements at odd indexes are:
20 40 60 80 100

# Question 3

In [3]: x=input().split()
types=[]
#initially the user takes as input as string and converts to original type of the value
for i in range(len(x)):
    if '.' in x[i] and not(x[i].isalpha()):
        x[i]=float(x[i])
    elif x[i].isnumeric():
        x[i]=int(x[i])
#type function is used to determine type of an list element
for i in range(len(x)):
    types.append(type(x[i]))

print(x)
print(types)

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

# Question 4

In [ ]: def unique_list(x):
    k=[]
    for i in range(len(x)):
        if x[i] not in k:
            k.append(x[i])
    return k

```

Question 4:

The screenshot shows a Jupyter Notebook titled "Assignment_2 Last Checkpoint: an hour ago (unsaved changes)". The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running cells, and code execution. The notebook is running on Python 3. The code in the cell is as follows:

```
[23, 'Python', 23.98]  
[<class 'int'>, <class 'str'>, <class 'float'>]  
  
# Question 4  
  
In [4]: def unique_list(x):  
        k=[]  
        for i in range(len(x)):  
            #No duplicate allowed condition  
            if x[i] not in k:  
                k.append(x[i])  
        return k  
  
        #input List  
        x=[1,2,3,3,3,3,4,5]  
        print("Sample List:",x)  
        #Here calls unique_list function  
        print("Unique List:",unique_list(x))  
  
        Sample List: [1, 2, 3, 3, 3, 3, 4, 5]  
        Unique List: [1, 2, 3, 4, 5]
```

Question 5:

The screenshot shows the same Jupyter Notebook interface, but the code in the cell is different. The code is as follows:

```
print("Sample List:",x)  
#Here calls unique_list function  
print("Unique List:",unique_list(x))  
  
Sample List: [1, 2, 3, 3, 3, 3, 4, 5]  
Unique List: [1, 2, 3, 4, 5]  
  
# Question 5  
  
In [5]: a=input("Input String: ").strip()  
        lower_count=upper_count=0  
        #isupper function checks whether the given letter is upper_case or not  
        #islower function checks whether the given letter is Lower_case or not  
        for i in range(len(a)):  
            if a[i].isalpha() and a[i].isupper():  
                upper_count+=1  
            elif a[i].isalpha() and a[i].islower():  
                lower_count+=1  
        print("No. of Upper-case characters:",upper_count)  
        print("No. of Lower-case characters:",lower_count)  
  
        Input String: The quick Brow Fox  
        No. of Upper-case characters: 3  
        No. of Lower-case characters: 12
```