```python
In [1]: #Q1 Write a Python program that prints "Hello, World!" to the console.

        print("Hello World")
```
Hello World

```python
In [2]: #Q2. Create variables to store your name, age, and favorite hobby. Print these variables.

        name = "pooja"
        age = 22
        hobby = "dancing"

        print("name:", name)
        print("age:", age)
        print("hobby:", hobby)
```
name: pooja
age: 22
hobby: dancing

```python
In [ ]: #Q3 Add comments to your code explaining what each line does.
```

```python
In [4]: #Q4. Write a Python program that takes an integer input from the user and prints whether the number is
        #positive, negative, or zero.


        num = int(input("Enter a number")) #taking integer input from user

        # cheching number is positive, negative or zero.
        if num > 0:
            print("The number is positive")

        elif num < 0:
            print("The number is nigative")

        else:
            print("The number is zero")
```
The number is nigative

```python
In [5]: #Q5. Create a program that checks if a given year is a leap year.

        yr = int(input("Enter a year"))

        if yr % 4 == 0:
            print("Enter year ia a leap year")

        else:
            print("Enter year is not leap year")
```
Enter year ia a leap year

```python
In [6]: #Q6 . Write a Python program to print the first 10 natural numbers using a for loop.

        for i in range(1, 11):
            print(i)
```
1
2
3
4
5
6
7
8
9
10

```python
In [1]: #Q7 Create a program that prints the multiplication table of a given number using a while loop.

        num = int(input("Enter a number"))

        m = 1

        while m <= 10:
            result = num * m
            print(f"{num}*{m}= {result}")
            m += 1
```
6*1= 6
6*2= 12
6*3= 18
6*4= 24
6*5= 30
6*6= 36
6*7= 42
6*8= 48
6*9= 54
6*10= 60

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In [7]: #Q8 . Write a Python program that iterates through numbers 1 to 10 and prints each number. Use the
        #continue statement to skip numbers that are divisible by 3.

        for i in range(1, 11):
            # If the number is divisible by 3, skip
            if i % 3 == 0:
                continue  #If the number is divisible by 3, continue to print number

            print(i)
```
1
2
4
5
7
8
10

```python
In [10]: #Q9 Create a program that stops printing numbers when it encounters a number greater than 5 using the
         #break statement.

         for i in range(1, 11):
             # Check if the number is greater than 5
             if i > 5:

                 break  # loop will break after condition false

             print(i)
```
1
2
3
4
5

```python
In [15]: #Q10 Define a function called greet that takes a name as an argument and prints "Hello, [name]!".

         def greet(name):
             print(f"Hello {name}!")

         greet("pooja")
         greet("Gayatri")
```
Hello pooja!
Hello Gayatri!

```python
In [17]: #Q11. Create a function that takes two numbers as arguments and returns their sum.

         def sum(a, b): # take two arguments
             result = a + b # store their summation as a result
             print(result) # print the result
```

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sum(20, 40)# calling a function
```

60

```python

```