```
#Q1
cost = [10,20,30,40,50]
total_bill = 0

for i in range(5):
  total_bill += cost[i]

print(total_bill)
```

→   150

```
#Q2
marks = (80,90,70,60,85)
avg_marks = 0

for i in range(5):
  avg_marks += marks[i]

print(avg_marks/5)
```

→   77.0

```
#Q3
email_list = ['a@gmail.com','b@gmail.com','a@gmail.com']
email_set = set()

for i in range(3):
  email_set.add(email_list[i])

print(email_set)
```

→   {'b@gmail.com', 'a@gmail.com'}

```
#Q4
input_data = {}

number_of_entries = int(input("How many entries do you want to add? "))

for i in range(number_of_entries):
    key = input(f"Enter key {i+1}: ")
    value = input(f"Enter value for {key}: ")
    input_data[key] = value

print("\nThe dictionary you created:")
print(input_data)
print()

for key,value in input_data.items():
  print(key + '-' + value)
```

→   How many entries do you want to add? 2
    Enter key 1: Alice
    Enter value for Alice: Present
    Enter key 2: bob
    Enter value for bob: Absent

    The dictionary you created:
    {'Alice': 'Present', 'bob': 'Absent'}

    Alice-Present
    bob-Absent

```
#Q5
import builtins
num = int(builtins.input("Enter an integer: "))

for i in range(1,11):
  print(num*i)
```

→   Enter an integer: 4
    4

```
        8
       12
       16
       20
       24
       28
       32
       36
       40
```

```python
#Q6
l1 = [1,2,3,4,5]

for i in range(5):
  l1[i] = l1[i]*l1[i]

print(l1)
```

```
[1, 4, 9, 16, 25]
```

```python
#Q7
n = int(input("Enter the height of the diamond (odd number): "))

if(n%2 == 0):
  print("Enter a odd number to proceed")
else:

  for i in range(1, n//2 + 2):
      print(" " * (n//2 - i + 1), end="")
      print("*" * (2*i - 1))

  for i in range(n//2, 0, -1):
      print(" " * (n//2 - i + 1), end="")
      print("*" * (2*i - 1))
```

```
Enter the height of the diamond (odd number): 7
      *
     ***
    *****
   *******
    *****
     ***
      *
```

```python
#Q8
l2 = [1,2,3,4,5,6,7,8,9,10]
even_count = 0
odd_count = 0
n = len(l2)

for i in range(n):
  if l2[i]%2 == 0:
    even_count += 1
  else:
    odd_count += 1

print("Number of even numbers: ",even_count)
print("Number of odd numbers: ",odd_count)
```

```
Number of even numbers:  5
Number of odd numbers:  5
```

```python
#Q9
fruits = ['apple','orange','mango','apple','orange']
m = len(fruits)
unique_fruits = set()

for i in range(m):
  unique_fruits.add(fruits[i])

print(unique_fruits)
```

```
{'mango', 'apple', 'orange'}
```

```python
#Q10
marks = {'Maths':70,'English':60,'Science':95}
```

```python
total_marks = 0;

for value in marks.values():
  total_marks += value

print(total_marks)
```

    225

```python
#Q11
original_list = [10,20,30,40,50]
reverse_list = []
l = len(original_list)

j = l-1

while j>=0:
  reverse_list.append(original_list[j])
  j = j-1

print(reverse_list)
```

    [50, 40, 30, 20, 10]

```python
#Q12
username = ['Ayush']
enter_username = input("Enter the username: ")

if(username[0] == enter_username):
  print("Login successful")
else:
  print("Login failed!!")
```

    Enter the username: Aayush
    Login failed!!

```python
#Q13
book_dict = {'Math': 4, 'History': 5, 'Science': 6}
total_books = 0

for value in book_dict.values():
  total_books += value

print("Total books in the dictionary are: ",total_books)
```

    Total books in the dictionary are: 15

```python
#Q14
a = int(input("Enter a number: "))

for i in range(1,a+1):
  if(i%3 == 0):
    print(i)
```

    Enter a number: 20
    3
    6
    9
    12
    15
    18

```python
#Q15

l1 = [1,2,3,4,5]
l2 = [2,3,6]

n1 = len(l1)
n2 = len(l2)

i = 0
j = 0
```

```python
if(n1 > n2):
  while j<n2:
    if(l2[j] in l1):
      print(l2[j])
    j += 1
else:
  while i<n1:
    if(l1[i] in l2):
      print(l1[i])
    i += 1
```

```
2
3
```

```python
#Q16
string = input("Enter a string: ")

for i in range(len(string)):
  if(string[i] == 'a' or string[i] == 'e' or string[i] == 'i' or string[i] == 'o' or string[i] == 'u'):
    print(string[i])
```

```
Enter a string: Ayush
u
```

```python
#Q17
list_input = [1,1,2,3,3]
set_of_list = set()

for i in range(len(list_input)):
  set_of_list.add(list_input[i])

final_list = list(set_of_list)

print(final_list)
```

```
[1, 2, 3]
```

```python
#Q18
user_data = {}

num_entries = int(input("How many entries do you want to add? "))

for i in range(num_entries):
    key = input(f"Enter key {i+1}: ")
    value = input(f"Enter value for {key}: ")
    user_data[key] = value

print("\nThe dictionary you created:")
print(user_data)
print()

for key,value in user_data.items():
  print(key + '-' + value)
```

```
How many entries do you want to add? 2
Enter key 1: 1
Enter value for 1: Alice
Enter key 2: 2
Enter value for 2: Bob

The dictionary you created:
{'1': 'Alice', '2': 'Bob'}

1-Alice
2-Bob
```

```python
#Q19
x = int(input("Enter the first range value: "))
y = int(input("Enter the second range value: "))

for i in range(x):
```

```
  for j in range(y):
    print((i,j))
```

```
Enter the first range value: 2
Enter the second range value: 3
(0, 0)
(0, 1)
(0, 2)
(1, 0)
(1, 1)
(1, 2)
```

```
#Q20
password = input("Enter a password: ")

check_digits = False
check_letters = False

for i in range(len(password)):
  if(password[i].isdigit()):
    check_digits = True
  elif(password[i].isalpha()):
    check_letters = True

if(check_digits and check_letters):
  print("Strong password")
else:
  print("Weak password")
```

```
Enter a password: dghsf
Weak password
```