Assignment -1

Python Programming

Assignment Date	29 September 2022
Team ID	PNT2022TMID44152
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Maximum Marks	2 Marks

Question-1:

Write a Python program to add two objects if both objects are an integer type.

Solution:

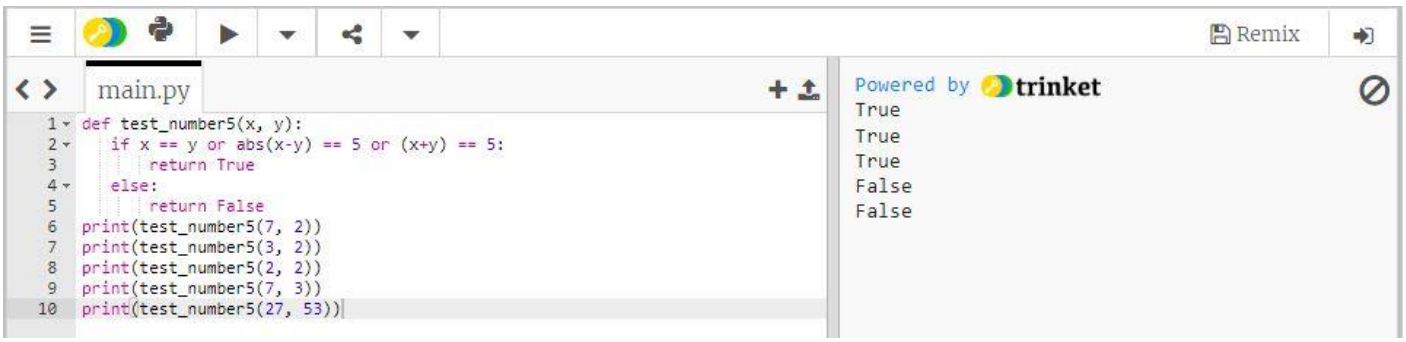
```
def add_numbers(a, b):
  if not (isinstance(a, int) and isinstance(b, int)):
      return "Inputs must be integers!"
  return a + b
print(add_numbers(10, 20))
print(add_numbers(10, 20.23))
print(add_numbers('5', 6))
print(add_numbers('5', '6'))
```

Question-2:

Write a Python program which will return true if the two given integer values are equal or their sum or difference is 5

Solution:

```
def test_number5(x, y):
   if x == y or abs(x-y) == 5 or (x+y) == 5:
       return True
   else:
       return False
print(test_number5(7, 2))
print(test_number5(3, 2))
print(test_number5(2, 2))
print(test_number5(7, 3))
print(test_number5(27, 53))
```

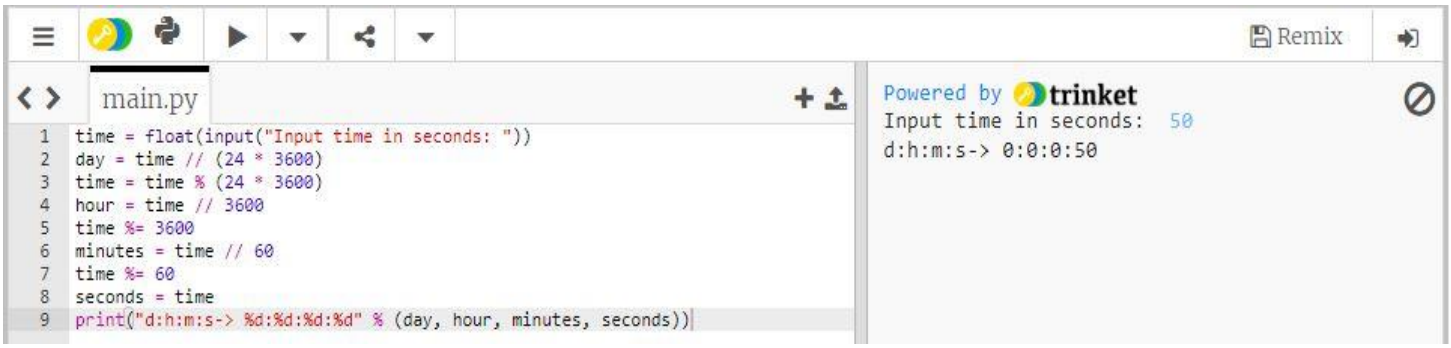


Question-3:

Write a Python program to convert seconds to day, hour, minutes and seconds.

Solution:

```
time = float(input("Input time in seconds: "))
day = time // (24 * 3600)
time = time % (24 * 3600)
hour = time // 3600
time %= 3600
minutes = time // 60
time %= 60
seconds = time
print("d:h:m:s-> %d:%d:%d:%d" % (day, hour, minutes, seconds))
```



Question-4:

Write a Python program to calculate body mass index.

Solution:

```
height = float(input("Input your height in Feet: "))
weight = float(input("Input your weight in Kilogram: "))
print("Your body mass index is: ", round(weight / (height * height),
2))
```

Question-5:

Write a Python program to hash a word.

Solution:

```
soundex=[0,1,2,3,0,1,2,0,0,2,2,4,5,5,0,1,2,6,2,3,0,1,0,2,0,2]

word=input("Input the word be hashed: ")

word=word.upper()

coded=word[0]

for a in word[1:len(word)]:
    i=65-ord(a)
    coded=coded+str(soundex[i])
print()
print("The coded word is: "+coded)
print()
```