

labTest

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1 Answers

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1.1 Print alternate digits of a 7-digit no.

```
[2]: def alterDigit(n:int):  
    ifPrint: bool = False  
    while (n>0):  
        if ifPrint:  
            print(n%10)  
        ifPrint = not ifPrint  
        n //= 10  
  
alterDigit(7878124)
```

2

8

8

1.2 Keep elements from odd indices of an array and store in reverse order.

```
[3]: def getList(n):  
    arr = []  
    for i in range(len(n)):  
        if ((i&1) == 1):  
            arr.append(n[i])  
    return arr[::-1]  
  
getList([1,2,3,4,5,6,7])
```

[3]: [6, 4, 2]

1.3 Add two times in clock and print in hrs, minutes and seconds.

```
[5]: class Time:
    def __init__(self, h,m,s):
        self.hrs = h
        self.min = m
        self.sec = s

    def addTime(obj1: Time, obj2: Time):
        res = Time(0,0,0)
        s = obj1.sec + obj2.sec
        res.sec = s%60
        res.min = s//60
        res.min += obj1.min + obj2.min
        res.hrs = res.min // 60
        res.min %= 60
        res.hrs += obj1.hrs + obj2.hrs
        return res

t1 = Time(5,1,30)
t2 = Time(6,7,8)
t3 = addTime(t1,t2)
print(f"hrs={t3.hrs} min={t3.min} sec={t3.sec}")
```

hrs=11 min=8 sec=38

1.4 Write a menu driven program using Function to perform calculator operation for mathematical operations (i.e Addition, Subtraction, Multiplication, division)

```
[6]: choice = int(input("[1] add [2] mult [3] sub [4] div"))
op1 = int(input("enter first operand"))
op2 = int(input("enter second operand"))

if choice == 1:
    print(f"res = {op1 + op2}")
elif choice == 2:
    print(f"res = {op1 * op2}")
elif choice == 3:
    print(f"res = {op1 - op2}")
elif choice == 4:
    print(f"res = {op1 / op2}")
else:
    print("Invalid option")
```

res = 12

1.5 Write a program using function (C(n,r)) to calculate the compound interest for the given principal, rate of interest and number of years.

```
[8]: def C(P, r, t):  
      return P * (pow(1+r/100, t) - 1)  
  
      print(f"Compound interest = {C(5000, 6, 3)}")
```

Compound interest = 955.08000000000004