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import numpy as np

# task1:

print("\ntask1")

arr=np.array([1,2,3,4,5,6])

reshaped=arr.reshape(2,3)

print("Orignal array ",arr)

print("reshaped array ",reshaped)

# TASK 2:

print("\ntask 2")

array1=np.zeros(5)

array2=np.ones(5)

print("array of zeros ",array1)

print("array of ones ",array2)

# task 3

print("\ntask 3")

array\_even=np.arange(2,21,2)

print(array\_even)

# task 4

print("\ntask 4")

array\_1\_9=np.arange(1,10)

print("orignal array ",array\_1\_9)

array\_1\_9\_reshaped=array\_1\_9.reshape(3,3)

print("reshaped array ",array\_1\_9\_reshaped)

# task 5:

print("\ntask 5")

arr5=np.array([[10,20,30],[40,50,60]])

print("first roe: ",arr5[0])

print("last element of secind row: ",arr5[1,2])

# task 6:

print("\ntask 6")

a=np.array([1,2,3])

b=np.array([4,5,6])

print("addition: ",a+b)

print("subtraction: ",a-b)

print("multiplication: ",a\*b)

#task 7:

print("\ntask 7")

arr7=np.array([5,12,3,8,7])

print("maximum number: ",max(arr7) )

print("minimum number: ",min(arr7) )

print("mean number: ",np.mean(arr7) )

#task8:

import random

arr8=np.random.randint(1,101,size=(3,3))

print("\ntask 8")

print(arr8)

# task9

arr9=np.arange(1,11)

filtered\_Aray=arr9[arr9>5]

print("\ntask 9")

print(filtered\_Aray)

# task 10:

arr10=np.random.randint(1,10, size=10)

print("\ntask 10")

print("orignal array: ",arr10)

sorted=np.sort(arr10)

print("array in assending order: ", sorted)

**OUTPUT**:



