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Code:

def Dynamic\_Knapsack (wt, val, W, n):

    t = [[-1 for i in range (W+1)] for j in range(n+1)]

    for i in range(n+1):

        for j in range(W+1):

            if(i==0 or j==0):

                t[i][j]=0

            elif(wt[i-1] <= j):

                t[i][j] = max(val[i-1]+ t[i-1][j-wt[i-1]], t[i-1][j])

            else:

                t[i][j] = t[i-1][j]

    return t[n][W]

def Greedy\_Knapsack(wt, val, W, n):

    ratio=[val[i]/wt[i] for i in range(n)]

#Selection sort on the ratio list to sort the wt, val and ratio list #in descending oreder

    for i in range(n):

        max\_ind = i

        for j in range (i+1 , n):

            if ratio[max\_ind] < ratio[j]:

                max\_ind = j

            ratio[i],ratio[max\_ind] = ratio[max\_ind], ratio[i]

            wt[i],wt[max\_ind] = wt[max\_ind],wt[i]

            val[i],val[max\_ind]=val[max\_ind],val[i]

    profit = 0

    i=0

    while(W>0 and i<n):

        if (wt[i]<W) :

            profit = val[i] + profit

            W=W-wt[i]

            i+=1

        else:

            i+=1

    return profit

# Driver code 1

val = [55,10,47,5,4,50,8,61,85,87]

wt = [95,4,60,32,23,72,80,62,65,46]

W = 269

n = 10

print ("Value obtained by Dyanamic algorithm is: ")

print (Dynamic\_Knapsack(wt,val,W,n))

print ("Value obtained by Greedy algorithm is: ")

print (Greedy\_Knapsack(wt,val,W,n))

Result:

