```
----- knapsack2(k2) -----
     ----- V matrix ----
  0
     0
         0
            0
               0
                  0
               5
                  5
  0
     0
         0
            5
            5
               5
       3
                  8
  0
            7
               9
  0
        4
                  9
        -- k matrix -----
     0
  0
         0
            0
               0
                  0
  0
     0
        0 1
              1
                  1
       1 0
  0
     0
              0 1
       1 1
              1
  0
     1
                  1
        2 3
i =
     1
     3
         2
            1
v =
     5
         3
Max Value of 9 can obtained from items {3,1} that has values {4+5=9}
-----knapsack1(animal) -------
     ----- V matrix -----
     0
         0
            0
               0
                  0
  0
     0
       12
          12
              12
                  12
  0
    10
       12
          22
              22
                 22
       12
          22
              30 32
  0
     10
  0
     10
       15
          25
              30
                 37
       --- k matrix ---
  0
     0
           0
               0
        1 1
  0
               1
                  1
       0 1 1 1
  0
     1
  0
     0 0 0
              1
                  1
        1 1
              0
  0
     0
     1
        2
            3
               4
i =
     2
       1
            3
               2
        10
           20
              15
Max Value of 37 can obtained from items {4,2,1} that has values
{15+10+12=37}
----- knapsack3 ------
        -- V matrix --
     0
         0
                  0
  0
            0
              0
  0
     0
         3
            3
               3
                  3
          4
                  7
  0
     0
        3
               4
        3
               5
                  7
            4
  0
     0
         3
            4
               5
                  7
  0
        -- k matrix ---
  0
     0
         0
            0
               0
                  0
  0
     0
         1 1
               1
                  1
  0
       0 1 1
                  1
  0
        0 0
              1
     0
  0
     0
        0 0
              0
        2 3 4
i =
     1
     2
        3
           4
               5
w =
         4
Max Value of 7 can obtained from items {2,1} that has values {4+3=7}
```

```
----- knapsack4(k1) -----
      ----- V matrix ---
      0
          0
                         0
                             0
                                 0
                                    0
                                        0
  0
              0
                 0
                     0
                 0
                    10
                            10
                                   10
                                       10
  0
      0
          0
              0
                        10
                                10
                                       50
  0
      0
              0
                 40
                    40
                        40
                            40
                                40
                                   50
          0
  0
      0
              0
                 40
                    40
                        40
                            40
                                40
                                   50
                                       70
          0
  0
      0
             50
                 50
                    50
                        50
                            90
                                90
                                    90
                                       90
          -- k matrix --
                                    0
                                        0
  0
      0
          0
              0
                 0
                     0
                         0
                             0
                                 0
                 0
                     1
                         1
                            1
                                1
                                    1 1
  0
      0
          0
              0
                     1
                                1
                                    1
                                        1
  0
      0
              0
                 1
                         1
                             1
          0
  0
      0
          0
              0
                0 0
                         0
                             0
                                 0
                                    0
                                        1
  0
      0
          0 1
                1
                     1
                         1
                             1
                                 1
                                    1
                                        1
              3
      1
          2
                 4
i =
      5
          4
             6
                  3
w =
     10 40
             30
                50
```

Max Value of 90 can obtained from items  $\{4,2\}$  that has values  $\{50+40=90\}$ 

You are amazing. Bring me a bar of Chocolate knapsackdp.cpp ends