```
#include<stdio.h>

int max(int a, int b) { return (a > b) ? a : b; }

int knapSack(int W, int wt[], int val[], int n) {
   int i, w;
   int K[n+1][W+1];

   for (i = 0; i <= n; i++) {
      for (w = 0; w <= W; w++) {
         if (i==0 || w==0)
            K[i][w] = 0;
         else if (wt[i-1] <= w)
            K[i][w] = max(val[i-1] + K[i-1][w-wt[i-1]],  K[i-1][w]);
         else
            K[i][w] = K[i-1][w];
      }
   }

   return K[n][W];
}

int main() {
   int val[100], wt[100], W, n, i;
   printf("Enter the number of items: ");
   scanf("%d", &n);
   printf("Enter the values and weights of each item:\n");
   for(i = 0; i < n; i++) {
      scanf("%d%d", &val[i], &wt[i]);
   }
   printf("Enter the capacity of knapsack: ");
   scanf("%d", &W);
   printf("The maximum value that can be put in a knapsack of capacity %d is: %d\n", W,
knapSack(W, wt, val, n));

   return 0;
}
```

Output: