

Program:

```
1  #include <stdio.h>
2  int max(int a, int b)
3  {
4      return (a > b) ? a : b;
5  }
6  int knapSack(int W, int wt[], int val[], int n)
7  {
8      int i, w;
9      int K[n + 1][W + 1];
10     for (i = 0; i <= n; i++)
11     {
12         for (w = 0; w <= W; w++)
13         {
14             if (i == 0 || w == 0)
15                 K[i][w] = 0;
16             else if (wt[i - 1] <= w)
17                 K[i][w] = max(val[i - 1]
18                             + K[i - 1][w - wt[i - 1]],
19                             K[i - 1][w]);
20             else
21                 K[i][w] = K[i - 1][w];
22         }
23     }
24     return K[n][W];
25 }
26 int main()
27 {
28     int val[] = { 60, 100, 120 };
29     int wt[] = { 10, 20, 30 };
30     int W = 50;
31     int n = sizeof(val) / sizeof(val[0]);
32     printf("%d", knapSack(W, wt, val, n));
33     return 0;
34 }
```

Output:

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

```
PS D:\5th-Sem-Practicals\DAA\Pract 7> gcc prog.c
PS D:\5th-Sem-Practicals\DAA\Pract 7> ./a.exe
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PS D:\5th-Sem-Practicals\DAA\Pract 7> █
```