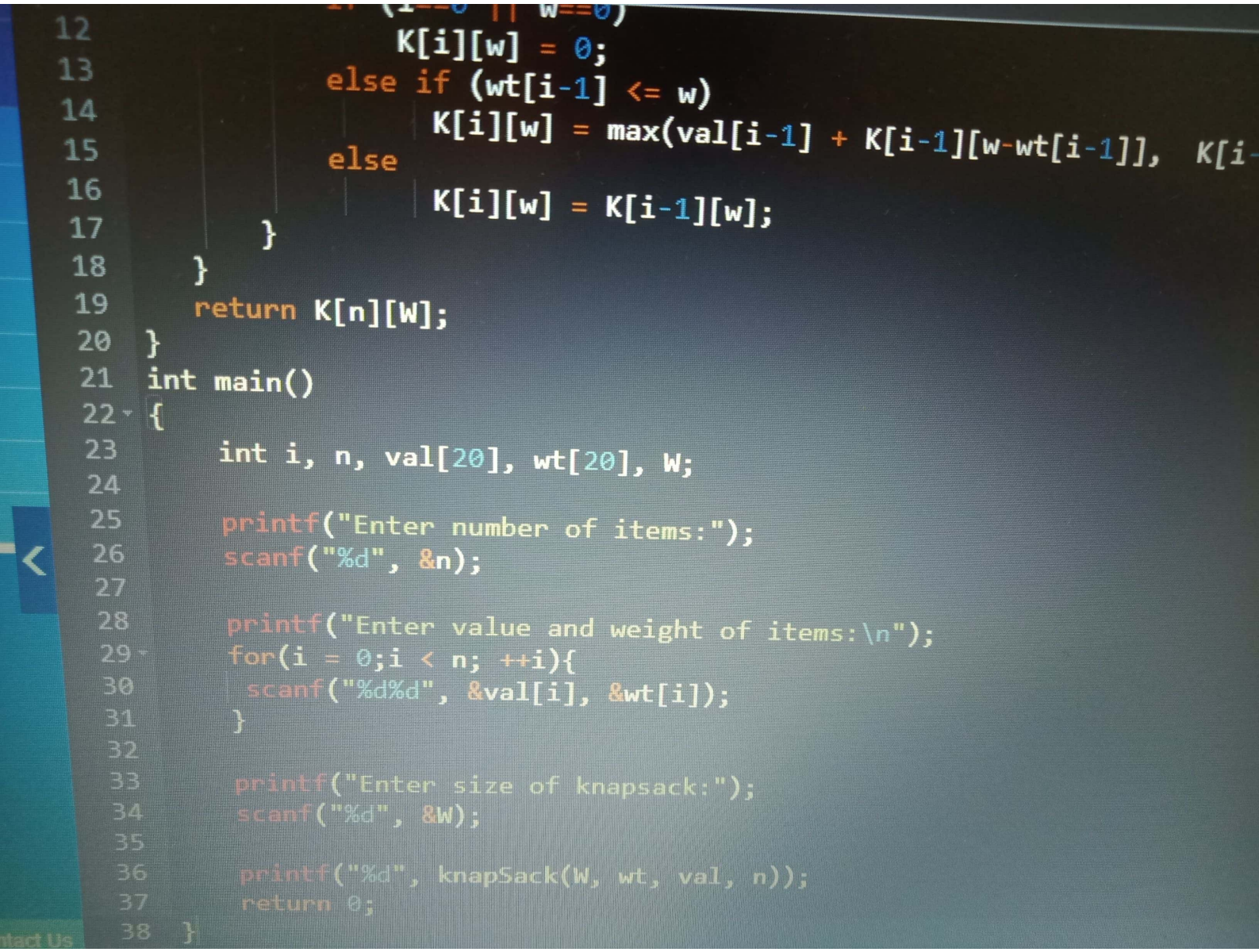
main.c

{ } Beautify

```c
#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 i, n, val[20], wt[20], W;

    printf("Enter number of items:");
    scanf("%d", &n);

    printf("Enter value and weight of items:\n");
```



```
12                  K[i][w] = 0;
13              else if (wt[i-1] <= w)
14                  K[i][w] = max(val[i-1] + K[i-1][w-wt[i-1]],  K[i-
15              else
16                  K[i][w] = K[i-1][w];
17          }
18      }
19      return K[n][W];
20  }
21  int main()
22  {
23      int i, n, val[20], wt[20], W;
24
25      printf("Enter number of items:");
26      scanf("%d", &n);
27
28      printf("Enter value and weight of items:\n");
29      for(i = 0;i < n; ++i){
30        scanf("%d%d", &val[i], &wt[i]);
31      }
32
33      printf("Enter size of knapsack:");
34      scanf("%d", &W);
35
36      printf("%d", knapSack(W, wt, val, n));
37      return 0;
38  }
```