

# KnapSack

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## Introduction

KnapSack is a C library providing structures and functions to solve the 0/1 knapsack problem: given a set of item with a cost and value, which subset of items has the maximum total value while the total cost stays under a given budget.

It uses the `PBErr` and `GSet` library.

## 1 Definitions

The definition of the knapsack problem and its solution can be found on Wikipedia:

[https://en.wikipedia.org/wiki/Knapsack\\_problem](https://en.wikipedia.org/wiki/Knapsack_problem)

## **2 Interface**

## **3 Code**

### **3.1 knapsack.c**

### **3.2 knapsack-inline.c**

## **4 Makefile**

## **5 Unit tests**

## **6 Unit tests output**