1. Given **N** items where each item has some weight and profit associated with it and also given a bag with capacity **W**, [i.e., the bag can hold at most **W** weight in it]. The task is to put the items into the bag such that the sum of profits associated with them is the maximum possible.

   **Note:** The constraint here is we can either put an item completely into the bag or cannot put it at all [It is not possible to put a part of an item into the bag].

   Example: **Input:** N = 3, W = 4, profit[] = {1, 2, 3}, weight[] = {4, 5, 1} **Output:** 3

   **Explanation:** There are two items which have weight less than or equal to 4. If we select the item with weight 4, the possible profit is 1. And if we select the item with weight 1, the possible profit is 3. So the maximum possible profit is 3. Note that we cannot put both the items with weight 4 and 1 together as the capacity of the bag is 4.

   **Input:** N = 3, W = 3, profit[] = {1, 2, 3}, weight[] = {4, 5, 6} **Output:** 0.

2. Given weights and values of n items, put these items in a knapsack of capacity W to get the maximum total value in the knapsack. In other words, given two integer arrays, val[0..n-1] and wt[0..n-1] represent values and weights associated with n items respectively. Also given an integer W which represents knapsack capacity, find out the items such that sum of the weights of those items of a given subset is smaller than or equal to W. You cannot break an item, either pick the complete item or don't pick it (0-1 property).

   **Examples:**

   Input: val[] = {60, 100, 120};
   wt[] = {10, 20, 30};
   W = 50;
   Output : 220 //maximum value that can be obtained
   30 20 //weights 20 and 30 are included.

   Input : val[] = {40, 100, 50, 60};
   wt[] = {20, 10, 40, 30};
   W = 60;
   Output : 200
   30 20 10

3. Write a C program that accepts a filename as a command line argument and verifies if the file exists.
4. Write a Program to sort a string of characters.
5. Can you pass command-line arguments(argc,argv[]) to a function other than main()? . Write a program to explain your answer.