

My Subscriptions

We want to build an intelligent system that can calculate the weekly subscription expenses of essential items for a household. For the sake of this assignment, we will go with the weekly newspaper subscription. Following table demonstrate prices of some of the prominent newspapers on a daily basis, all prices in Indian rupees.

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-------|--------|---------|-----------|----------|--------|----------|--------|
| TOI | 3 | 3 | 3 | 3 | 3 | 5 | 6 |
| Hindu | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 4 | 4 |
| ET | 4 | 4 | 4 | 4 | 4 | 4 | 10 |
| BM | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| HT | 2 | 2 | 2 | 2 | 2 | 4 | 4 |

The input to the program should be the weekly budget/amount that the user has allocated to his subscriptions. The output must be all possible combinations of the newspaper subscriptions for the user budget.

Example input/output combination:

| Input | Output |
|-------|---------------------------------------------------------------|
| 40 | {“TOI”, “BM”}, {“BM”, “HT”}, {“Hindu”, “BM”}, {“Hindu”, “HT”} |
| 35 | {“BM”, “HT”}, {“Hindu”, “BM”} |

Evaluation Criteria:

- The data structure to hold the details of all newspapers subscription details.
- Efficiency of the logic to calculate the possible combination of subscriptions
- Readable and modular code