

Advent of Code 2022 Day 1

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1 Introduction:

We'll solve the Advent of Code 2022's Day 1 puzzle in this assignment. The assignment was to identify the elf carrying the most calories among a group of elves and report both the identity of that elf and the total number of calories they were carrying.

2 Day 1: Calorie Counting

A group of elves are traveling together, and each elf is carrying a specific number of calories. The elves' rations are listed in a text file. Each line, one item.

Each elf leaves a blank line between their own inventory and the preceding elf's inventory, if there was one. Thus, the aim is to identify the elf carrying the most weight and determine how many calories that elf is carrying overall. As we can see in the assignment example that the first 4 th numbers was to the first elf and the 5th number was to the second elf and the 6th and 7th was to the third elf and the 8th ,9th ,10th was to the fourth elf, and the result was 24000 calories that the biggest number of calories.

```
1000
2000
3000
20000

4000

5000
6000

7000
8000
9000

10000
```

To solve the problem We had to import the raw text file first in order to address the issue. like in this code:

```
def getInput(input) do
    {:ok, data} = File.read(input)
```

The text file divided into segments, an accumulator to add the total number of calories consumed by each elf, and a list to hold the updated values are the arguments our function accepts.

First we define function that get input and read the file text as a previous and then use the `String.split()` that can split a string into multiple strings given a pattern, and then sum all lists that we made. After that, create a function that adds up all the lists of calories for each elf. If the list is empty, it does nothing; if it is not, it adds up the lists of calories for each elf.

Finally, we construct the function that calculates the largest amount of calories the elf is holding. We sorted our list using the function `Enum.sort(list, :desc)` to go from the largest value to the smallest value in this function.

```
[h|_] = Enum.take(list, n)
h
```

that show the biggest value.

3 Result:

In general, the task was not easy. But after it was resolved, it became so.

The result of running my code with my text that I get from the assignment ("input.txt") is

```
{[69528]}
```

And I tested the number by log in to the advent of code 2022 day 1 and submit my answer and I passed it.