Deposit Plan Case

Background information

At StashAway our customers can decide to open up one or multiple portfolios to save for different purposes (for example: a retirement portfolio and an emergency fund portfolio). Customers deposit funds into StashAway via bank transfer and have to include their personal StashAway reference code when submitting the transfer to their bank. This reference code is unique per customer and therefore does not include any information into which portfolio the funds shall be directed. As such, customers are encouraged to set up what we call a "deposit plan" for their account on either a one-time and/or monthly basis to specify how they want funds that are incoming to be allocated amongst their portfolios. The monthly plans exist for convenience purposes, so that customers can set-up a recurring deposit and don't have to login regularly to specify the split.

Please feel free to explore either our FAQs or our product in case you have questions about particular aspects of deposits at StashAway. You don't have to replicate StashAway's logic, as long as the solution you build is reasonable for the customer.

An example

A customer has two portfolios:
- High risk
- Retirement

As well as two deposit plans:
- One time (High risk: $10,000, Retirement: $500)
- Monthly (High risk: $0, Retirement: $100)

The customer made two fund deposits:
- First deposit: $10,500
- Second deposit: $100

The result of the fund deposit allocation should be:
- High risk portfolio gets 10,000$
- Retirement portfolio gets 600$

Keep in mind that this is a "happy" case.

Task

Your input consists of a list of one one-time and/or one monthly deposit plan (maximum two deposit plans total), as well as a list of fund deposits for a particular customer. When you design the data structures, each deposit plan must at least contain the portfolio as well as the absolute amount of money to allocate to that portfolio, and fund deposits must at least contain an absolute money amount deposited. Please build a method that can be called with the described input of both one-time and monthly deposit plans as well as a list of fund deposits, that returns the allocation of funds amongst the customer's portfolios. Keep in mind that all deposits must be distributed fully.

Please submit your solution using https://repl.it/ in either one of the following languages: Python, Node.JS, Java, Scala, Go