PRELIM
CASE STUDY 1

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Real-World Problem:

Our real-world problem is how can you ensure you have enough money for weekend activities while managing school day expenses such as transportation and food.

PROBLEM CONTEXT

If you are given a certain amount of allowance and you have to spend it for school, how can you save it for your other weekend activities given that there is some other expenses?

DECOMPOSITION

- Create an algorithm using Dynamic Programming Approach
- Gather input of the user

PATTERN RECOGNITION

- As we get more expenses means that less money will be save.

ABSTRACTION

- Relevant Information: amount of money, total days of school, expenses per day
- Irrelevant Information: types of expenses, time of expenses

PROBLEM CONTEXT

How can dynamic programming techniques solve the allowance problem in a week?

DECOMPOSITION

- Use a bottom-up approach
- Initialize an array to store remaining amount for each day
- Calculate the remaining amount for each day from 1 to total days using for loop

PATTERN RECOGNITION

- Inputs can be repeated and outputs can be compared to other previous weeks

ABSTRACTION

- Relevant Information: programming approach, input and output
- Irrelevant Information: programming language

THANK YOU!