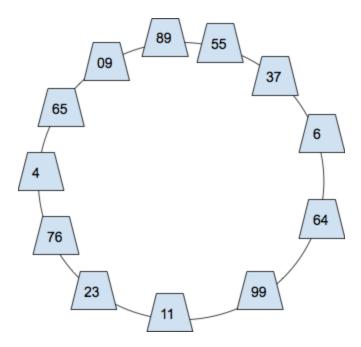
## **Smart Thief**

You're a smart thief and you want to break into as many houses as possible in a community and come away with maximum profit. This community is small, and the houses are built in a circle with adjacent houses on both left and right. Each house has a "profit score" value assigned to it and because you're a smart and diligent theft, you already completed a thorough investigation and know exactly how much profit score is for every house.



There is only one constraint -

You can not steal two houses in a row. That is, once a house is broken into, no adjacent house (left or right) can be robbed, as this creates too much disturbance and could trigger community alarm system and you'll get caught by the police!

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Goal: write a program (or describe your algorithm) to decide what house to hit and what to skip so that you could maximize your total profit score.

## Judging Criteria:

- The higher the score, the better.
- Efficiency (time and space complexity)
- Coding styles and readability
- Good use of comments

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Input: Attached <u>input.json</u> file - an JSON array with information about each houses, each one is a dictionary with the following keys:
Definitions:  "value" -> this house's own profit score  "prev" -> previous house's score  "next" -> next house's score
Output: A line-by-line decision to hit or not for a particular house, starting from the first house. Generate an output file.
Sample #1: your result mostly likely looks like this YES NO YES NO NO NO YES
Sample #2: skip all houses, what a chicken.  NO  NO  NO  NO  NO  NO  NO  NO  NO  N
Sample #3: violation of the rules, 2 YES in a row, you will be caught and go to jail YES YES NO YES