# Problem 3 - Deck of Cards



You will **receive a list** of Cards **on a single line separated by ", ".** On the **next line,** you will receive a number **n**. On the next **n** lines, you will receive commands that could be:

* **"Add, {CardName}"**:
  + **Add** the given **card** to the card deck and **print**: **"Card successfully added"**
* If it is **already in the deck**, print: **"****Card is already in the deck"**
* **"Remove, {CardName}"**:
  + **Remove the given card** from the card deck and print**: "****Card successfully removed"**
  + If it is **not** **in the deck**, print: **"****Card not found"**
* **"Remove At, {index}"**:
* **Remove** **the card** at the given index and **print**: **"Card successfully removed"**
* If the **index is not in the range** of the list, print: **"****Index out of range"**
* "**Insert, {index}, {CardName}"**:
  + **Add the card at the given index** and **print: "Card successfully added"**
* If the **index is out of range**, **print: "Index out of range"**
* If the **index is in range,** but the **card is already in the deck**, **print: "Card is already added"**

#### Input

* The **first input line** will contain the **list** of **cards.**
* The **second** **input** will be the **number of commands** – an **integer number** in the range [0…50].
* On the **following input lines,** you will be receiving commands.

#### Output

* After going through all the commands, you need to **print** all cards **on a single line separated by ", "**.

#### Examples

|  |  |
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| **Input** | **Output** |
| Ace of Diamonds, Queen of Hearts, King of Clubs  3  Add, King of Diamonds  Insert, 2, Jack of Spades  Remove, Ace of Diamonds | Card successfully added  Card successfully added  Card successfully removed  Queen of Hearts, Jack of Spades, King of Clubs, King of Diamonds |
| Two of Clubs, King of Spades, Five of Spades, Jack of Hearts  2  Add, Two of Clubs  Remove, Five of Hearts | Card is already in the deck  Card not found  Two of Clubs, King of Spades, Five of Spades, Jack of Hearts |
| Jack of Spades, Ace of Clubs, Jack of Clubs  2  Insert, -1, Queen of Spades  Remove At, 1 | Index out of range  Card successfully removed  Jack of Spades, Jack of Clubs |