# Problem 2 – Hero of Eldevir

Greetings Red Paladin, you are preparing for the grand battle of the realm! You are given an input data from the console. The first line represents all items in your inventory, separated by comma and whitespace. You will receive lines of information which contain actions about what happens to the items in your inventory, until command "Battle" or if there are no items left in your inventory. Your task is to print all items in the inventory.

You may receive the following actions:

* Loot {item}
* Disenchant {item}
* Upgrade {firstItem}/{secondItem}

If you receive the **Loot action**, you should **add** the item to the inventory, but only **if** the item is not in the inventory.

* If the loot is successful print in the console -> "{item} has been added to the inventory."

If you receive the **Disenchant action**, you must **remove** the item **if** it is part of the inventory.

* After removing the item if there are no items in the inventory you should print only "The inventory is empty." and stop the program.
* If the item is disenchanted and there are items left in the invetory print in the console -> "{item} has been disenchanted."

If you receive the **Upgrade action**, you must upgrade the first item, but only if the first item is part of the inventory.

* If the upgrade is successful you should print in the console "{item} has been upgraded to {firstItem} ~ {secondItem}."

## Input / Constraints

You will receive lines until command **"Battle"** or if thereare **no items in the inventory**.

* In the **first line,** you will receive all the items in the inventory– sequence of items, separated by comma and space.
* Each next line will be **action** and **item name**.

## Output

* When you get command **"Battle"** you should print
  + "Red Paladin's inventory :"
* And print all items in the inventory in the following way.
  + "--> {itemName}"

## Constraints

* The **actions will always be valid.**
* The **items will be a string containing only letters from the alphabet**.
* Allowed working **time** / **memory**: **100ms** / **16MB**.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| SwordOfDivine, InfinityEdge, Sheen  Loot Potion  Disenchant Sheen  Upgrade InfinityEdge/MightOfPower  Battle | Potion has been added to the inventory.  Sheen has been disenchanted.  InfinityEdge has been upgraded to InfinityEdge ~ MightOfPower.  Red Paladin's inventory :  --> SwordOfDivine  --> InfinityEdge ~ MightOfPower  --> Potion |
| ShadowMourne, KaelsDagger  Loot Bane  Loot CrimsonHelemt  Loot ShadowMourne  Disenchant Bane  Battle | Bane has been added to the inventory.  CrimsonHelemt has been added to the inventory.  Bane has been disenchanted.  Red Paladin's inventory :  --> ShadowMourne  --> KaelsDagger  --> CrimsonHelemt |
| FuriousPauldron, RelentlessGauntlet, Mace  Loot Bersker  Upgrade FuriousPauldron/WrathFull  Battle | Bersker has been added to the inventory.  FuriousPauldron has been upgraded to FuriousPauldron ~ WrathFull.  Red Paladin's inventory :  --> FuriousPauldron ~ WrathFull  --> RelentlessGauntlet  --> Mace  --> Bersker |