# **Problem 2. ATM Machine**

Now going on the next machine you need to process money from. It is the ATM. You will receive some commands for withdrawing, reporting or loading and you need to process them.

The input is an array of arrays. Each array from the input is a different command depending on its length.

If the **command array length is greater than 2 – Insert** money in the ATM.

If the **command array length is 2** - Withdraw money from the ATM.

If the **command array length is 1 - Report** the **count** of a **given banknote** in the ATM:

#### 1. Insert command:

**Each element** from the current command is a **banknote** that is inserted. After inserting, you have to **print a report message**:

'Service Report: {insertedCash}\$ inserted. Current balance:
{totalCashInATM}\$.'

### 2. Withdraw command:

The **first element** of the array is the **current balance** in the person **account**. The **second element** are the money **to withdraw**.

• If the **balance** of the account **is less** than the **money** to **withdraw** print:

'Not enough money in your account. Account balance: {accountBalance}\$.'

• If there is **not enough money in the ATM**, print the following message:

'ATM machine is out of order!'

 Otherwise, the withdraw is <u>always possible</u> and you need to start looping through the banknotes from the ATM, starting from the <u>biggest ones</u> and <u>remove them until you</u> <u>complete the withdraw</u>. When you finish the withdraw, print:

'You get {withdraw}\$. Account balance: {accountBalance}\$. Thank you!'

### 3. Report command:

Count the banknotes of the value given in the ATM:

'Service Report: Banknotes from {banknote}\$: {banknoteCount}.'

# **Input / Constrains**

- Comes as an array of arrays
- Input will always be valid

## **Output**

- After each array there is a specific message you need to print
- There is no other output that needs to be printed

## **Examples**

| Input   | Output   |
|---|--|
| [[20, 5, 100, 20, 1], [457, 25], [1], [10, 10, 5, 20, 50, 20, 10, 5, 2, 100, 20], [20, 85], [5000, 4500], | Service Report: 146\$ inserted. Current balance: 146\$.  |
|   | You get 25\$. Account balance: 432\$. Thank you!         |
|   | Service Report: Banknotes from 1\$: 1.                   |
|   | Service Report: 252\$ inserted. Current balance: 373\$.  |
| ]   | Not enough money in your account. Account balance: 20\$. |
|   | ATM machine is out of order!                             |

#### Comments

First Command - we insert each element /banknotes/ and print the report.

Second Command - withdraw, which is possible. We start from the biggest banknotes, so the banknotes are (20 + 5) = 25\$. After the withdraw there are 121\$ left in the ATM.

Third Command - we need to print how many banknotes of 1\$ there are in the ATM (1).

Forth Command - insert again and print the report (252\$ inserted).

Fifth Command - withdraw cannot be completed, because the account does not have enough money.

The last Command - withdraw cannot be completed, because the ATM does not have enough money.