# Pipelines

*To build your code or deploy your software using Azure Pipelines, you need at least one agent. As you add more code and people, you'll eventually need more.*

*That’s why we need you to develop an alogirthm that distributes pipelines to agents.*

We have **X agents** and **Y pipelines**.

Each agent can complete **at most one** pipeline and **vice versa**.

Each agent has a specific configurations and each pipeline has different demands (capabilities the agent must have to run this pipeline), therefore we have a mapping that shows **which agents can complete which pipelines**.

Find the **maximum distribution** that assigns pipelines to agents to complete a maximum number of builds.

## Input

* On the first line, you will receive an integer – agents.
* On the next line, you will receive an integer – pipelines.
* On the next agents lines you will receive a string – unique agent identifier.
* On the next pipelines lines you will receive a string – name of the pipeline.
* On the next agents lines you will receive which agent which pipelines can run in the following format: "{agent}, {pipeline…1}, … {pipelineN}".

## Output

* Print the maximum distribution that assigns agents to pipelines to complete a maximum number of builds in the following format: "{agent} - {pipeline}".
* Order of the output doesn’t matter.

## Constraints

* agents will be in the range [1… 10].
* pipelines will be in the range [1… 15].
* agent-pipeline mappings will always be valid.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  3  07a85db1  d294508d  6fcb0c04  Judge  SoftUni  SoftUni Digital  07a85db1, Judge, SoftUni Digital  d294508d, SoftUni, SoftUni Digital  6fcb0c04, Judge, SoftUni | 6fcb0c04 - Judge  d294508d - SoftUni  07a85db1 - SoftUni Digital |
| 3  3  07a85db1  d294508d  6fcb0c04  Google  Gmail  YouTube  07a85db1, Google, YouTube  d294508d, Google, Gmail, YouTube  6fcb0c04, Google, YouTube | 07a85db1 - Google  d294508d - Gmail  6fcb0c04 - YouTube |