

Robotic Code Representation

Our research lab has designed a robot that can execute various commands, e.g. `LEFT`, `DOWN`, `GRAB`, `UP`, `RIGHT`, `DROP`. Unfortunately, the commands need to be represented as strings composed of zeros and ones (so called Robotic Command Representation - RCR).

The robot is imperfect yet and processes long RCRs quite slowly. We would like to generate short RCRs for commands that are used frequently (we have a log of all commands that have ever been issued).

Our algorithmic team has sketched an algorithm for creating the RCRs:

- 00 for GRAB
- 01 for BACK
- 1 for LEFT

Task

Implement a microservice that given the log of issued commands calculates the RCR.

The microservice should expose a REST API, with 2 methods:

- POST /commands that would accept a json payload with the log of issued commands, in the following structure:

```
{
  "commands": List[string]
}
```

- GET /rcrs/{command} that should return the RCR for the given command. The expected shape of the returned payload is

```
{
  "rcr":string
}
```

Your microservice should be dockerized and should expose the implemented REST API on port 80. Please provide commands to build and run the dockerized microservice.

You can use Python, Java, TypeScript or Go to implement the microservice. You are free to use any external libraries or frameworks you need. Your solution will be evaluated based on correctness, code structure, readability and efficiency.

You are not required to implement any security mechanisms.

You may keep all the application state in memory (no need to persist it to a database).