Overview

This coding challenge is meant for you to demonstrate how you can solve a problem. We are best able to assess solutions written in Ruby or JavaScript but please let us know if you'd like to use something else.

We're looking for code that is:
- clean and well structured
- simple but extensible
- covered with automated tests

Completing your solution shouldn't take more than a few days. Please ask us if you have any questions.

Please supply us with a zipped git repository or git bundle containing your solution when you are finished.

The Problem

Description

Pets2U is an online pet shop that ships pets through the postal service.

Each package that they send costs time and money so they are interested in minimising the number required to fulfil each order. Smaller boxes are preferred as they are cheaper to send than larger ones.

The boxes available to ship pets are the following:

- **B1** - 20cm x 20cm
- **B2** - 40cm x 20cm
- **B3** - 40cm x 40cm

The available animals are:

- **Rat (R)** - occupies 20cm x 20cm
- **Hedgehog (H)** - occupies 20cm x 20cm
- **Mongoose (M)** - occupies 40cm x 20cm
- **Snake (S)** - occupies an **L** shape of 40cm on each side and 20cm on the ends

You will need to develop a program that receives an order of different pets as an input and then produces the boxes required as an output.

Test Examples

Please show that at least the following examples work with your solution. You can use an automated test to demonstrate this.

Input	Output
R	B1
H	B1
M	B2
S	B3
R,H,H	B3

S,M	B2,B3
S,H,R,M	B3,B3
R,H,S	B1,B3