# Code Challenge

Please submit the solution to your challenge as a tarball, with clear instructions on how to execute it.

## Rubric

Here's what we're looking for:

- *Correctness*. Does the code fulfill the requirements of the challenge?
- *Readability*. Is the code well-structured by the standards of the host language? Is it simple and clean? Does it reflect the domain of the problem?
- *Fit and polish*. Is there a README? A build script? Are there spelling errors or extraneous comments? How does it handle unspecified behavior?
- *Test coverage*. Not every developer writes tests, and that's okay. But we do. (Most of the time.)

## Challenge: Pizzabot

As part of our continuing commitment to the latest cutting-edge pizza technology research, Slice is working on a robot that delivers pizza. We call it *(dramatic pause)*: Pizzabot. Your task is to instruct Pizzabot on how to deliver pizzas to all the houses in a neighborhood.
In more specific terms, given a grid (where each point on the grid is one house) and a list of points representing houses in need of pizza delivery, return a list of instructions for getting Pizzabot to those locations and delivering. An instruction is one of:
N: Move north
S: Move south
E: Move east
W: Move west
D: Drop pizza

Pizzabot always starts at the origin point, (0, 0). As with a Cartesian plane, this point lies at the most south-westerly point of the grid.
Therefore, given the following input:
“ ./pizzabot "5x5 (1, 3) (4, 4)"
one correct solution would be:
ENNNDEEEND

In other words: move east once and north thrice; drop a pizza; move east thrice and north once; drop a final pizza.
If you'd prefer to avoid stdin, or work predominantly in a platform that makes it difficult to use, the equivalent solution expressed as an integration test is just fine. The API is entirely up to you, as long as the test exercises functionality that accepts and returns properly formatted strings:

```
assertEqual(pizzabot("5x5 (1, 3) (4, 4)"), "ENNNDEEEND")
```

There are multiple correct ways to navigate between locations. We do not take optimality of route into account when grading: all correct solutions are good solutions.
To complete the challenge, please solve for the following *exact input*:
5x5 (0, 0) (1, 3) (4, 4) (4, 2) (4, 2) (0, 1) (3, 2) (2, 3) (4, 1)

Keep it simple, and have fun!