# DevOps Homework

**Introduction**

The LoyaltyOne DevOps Homework is intended to gauge how technical candidates apply technical skills in solving a problem.

We are primarily looking for the manner in which the solution is attempted: the choices of technologies, tools, and architecture – all of which will give us insight into your working practices.

The challenge touches on many of the core technical concepts in use in our environment.

Upon completion of the homework you will be asked to provide access to completed work, demonstrate the portion of the challenge you were able to successfully complete, and explain the technologies and how they work. We will discuss any difficulties you encountered, setbacks that prevented completion of the challenge, and follow-on items mentioned below.

**The Challenge**

Create an internet-facing web service accepting a single word and deriving all possible anagrams.

**Guidelines**

1. Base the solution on a platform and language you are familiar with.
2. Ensure that the solution is developed using a source control system.
3. Provide adequate tests demonstrating that the solution is complete and correct.
4. Utilize a mechanism for deploying the solution to the platform.
5. Confirm that the solution is secured appropriately for public consumption.

**Follow-Up Discussion Items**

As part of the solution review, we’ll discuss the following items:

1. A minor change in requirements will be proposed. Make the necessary changes, check-in the code and deploy.
2. Describe how this solution might be monitored on a production platform, what are the key items to track?
3. Your solution receives a ‘social media hug’ resulting in a sudden increase in utilization, how might you respond to this situation?