

# PROJECT SPECIFICATION

## Deploy a High-Availability Web App using CloudFormation

### The Basics

CRITERIA	MEETS SPECIFICATIONS
Parameters	The more the better, but an exaggerated number of parameters can be messy ( say, 10 or more ). 1 or 0 is definitely lacking.
Resources	This is the mandatory section of the script, we are looking for a LoadBalancer, Launch Configuration, AutoScaling group a health check, security groups and a Listener and Target Group.
Outputs	This is optional, but it would be nice to have a URL here with the Load Balancer DNS Name and “http” in front of it .
Working Test	If the student provides a URL to verify his work is running properly, it will be a page that says “it works! Udiagram, Udacity”


### Load Balancer

CRITERIA	MEETS SPECIFICATIONS
Target Group	The auto-scaling group needs to have a property that associates it with a target group. The Load Balancer will have a Listener rule associated with the same target group
Health Check and Listener	Port 80 should be used in Security groups, health checks and listeners associated with the load balancer

### Auto-Scaling

CRITERIA	MEETS SPECIFICATIONS
Subnets	Students should be using PRIV-NET ( private subnets ) for their auto-scaling instances
Machine Specs	The machine should have 10 GB or more of disk and should be a t3.small or better.
SSH Key	There shouldn’t be a ‘keyname’ property in the launch config

### Bonus

CRITERIA	MEETS SPECIFICATIONS
Output	Any values in the output section are a bonus
Bastion Host	Any resource of type AWS:  :Instance, optional, but nice to have.

## Suggestions to Make Your Project Stand Out!

- Students can deploy Windows Servers instead of Linux and use PowerShell scripts to showcase their Windows management skills.
- Students can use AWS Parameter Store to save sensitive data, such as credentials to showcase their attention to security.
- Students can use CloudWatch Alarms and CloudWatch custom metrics to showcase their performance and monitoring skills.