Lecture #05

Campus	Lecture Date	Lecture Recording Availability Date
Boston	06/08/2019	N/A
Online	N/A	06/08/2019

Agenda

- Review Assignment #01 [../../assignments/01/]
- Introduction to Amazon Web Services (AWS)
- Identity & Access Management (IAM)
- Infrastructure as Code
  - AWS SDK
  - AWS CLI
  - AWS CloudFormation
- Discuss Assignment #02 [../../assignments/02/]

Slides

- Identity & Access Management [https://northeastern-my.sharepoint.com/:b:/g/personal/tejasparikh_northeastern_edu/EV3tQiIShY1GsrgMuPSdj6YBizJyboX3vnhAaDHtBOq4RA?e=akz7ym]

- Infrastructure as Code [https://northeastern-my.sharepoint.com/:b:/g/personal/tejasparikh_northeastern_edu/EQ-wHVehr5ZGu2bp0GC2YNgBFk7mNdpHzpgUFWIhRPoClg?e=7kC2vz]
- AWS CLI [https://northeastern-my.sharepoint.com/:b:/g/personal/tejasparikh_northeastern_edu/ETU89dkqxzZGpTp6yKWix3gB6NGM843JW9PuM19jXaeQsw?e=RzJSxL]
- AWS CloudFormation [https://northeastern-my.sharepoint.com/:b:/g/personal/tejasparikh_northeastern_edu/EQVMFf0KQrhGgsp3FVGza2EBcOOCpZnZtd579h2QIFGLiQ?e=4qcJv1]

Lab

- AWS CLI Setup

Reading

IAM

- AWS Identity and Access Management (IAM) [https://aws.amazon.com/iam/]
- IAM Actions, Resources, and Condition Keys for AWS Services [https://docs.aws.amazon.com/IAM/latest/UserGuide/reference_policies_actions-resources-contextkeys.html]

AWS SDK & CloudFormation

- AWS Command Line Interface [https://aws.amazon.com/cli/]
  - Install AWS CLI [http://docs.aws.amazon.com/cli/latest/userguide/installing.html]
  - Configure AWS CLI [http://docs.aws.amazon.com/cli/latest/userguide/cli-chap-getting-started.html]
- AWS CloudFormation [https://aws.amazon.com/cloudformation/]

- Tools for Amazon Web Services [https://aws.amazon.com/tools/]
- CloudFormation Intrinsic Function References [https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/intrinsic-function-reference.html]

Infrastructure as Code

- https://www.cio.com/article/3017722/what-is-infrastructure-as-code-and-why-should-you-embrace-it.html [https://www.cio.com/article/3017722/what-is-infrastructure-as-code-and-why-should-you-embrace-it.html]
- https://dzone.com/articles/how-to-leverage-infrastructure-as-code-with-devops [https://dzone.com/articles/how-to-leverage-infrastructure-as-code-with-devops]
- https://www.thoughtworks.com/insights/blog/infrastructure-code-reason-smile [https://www.thoughtworks.com/insights/blog/infrastructure-code-reason-smile]

Sample CloudFormation Template

- VPC [https://gist.github.com/tejasparikh/913a310591ab596e2f508b5bf9622b91]
- EC2 Instance [https://gist.github.com/tejasparikh/8eb20a9f2b88a2e91b311057563713c7]