Week 1 Notes and Resources

KEY TOPICS

The Internet of Things

A good general introduction to IoT concepts can be found on Wikipedia. IoT on AWS provides a broad and deep set of services that work from the edge to the cloud, provide multi-layered security, Integration with AI systems, and scalability. We will be detailing these services in this class. More information can be found on the AWS IoT website.

AWS IoT Core Services

AWS IoT Core is a managed cloud service that lets connected devices easily and securely interact with cloud applications and other devices. AWS IoT Core can support billions of devices and trillions of messages, and can process and route those messages to AWS endpoints and to other devices reliably and securely. With AWS IoT Core, your applications can keep track of and communicate with all your devices, all the time, even when they aren't connected.

AWS IoT Core also makes it easy to use AWS services like AWS Lambda, Amazon Kinesis, Amazon S3, Amazon SageMaker, Amazon DynamoDB, Amazon CloudWatch, AWS CloudTrail, and Amazon QuickSight, to build IoT applications that gather, process, analyze and act on data generated by connected devices, without having to manage any infrastructure.

ADDITIONAL SERVICES/CONCEPTS

Creating an AWS Account

If you do not have an AWS account, you may want to review the section in the edX Building on AWS class on this topic as well as information and best practices surrounding the AWS Free Tier.

Developing in the Cloud with AWS Cloud9

AWS Cloud9 is a cloud-based integrated development environment (IDE) that lets you write, run, and debug your code with just a browser. It includes a code editor, debugger, and terminal. You can run this development environment on a managed Amazon Elastic Compute Cloud (Amazon EC2) instance that automatically sleeps when you are not using it.
Follow the exercise directions carefully when setting up your AWS Cloud9 instance.

WHAT YOU ACCOMPLISHED THIS WEEK

- You created your AWS Cloud9 instance.
- You deployed two "car" Things.