W205 2017 summer Lab1 Weixing Sun

Q1: What is the difference between EBS and S3?

S3 and EBS are both storage services offered by Amazon Web Services. S3 stores objects in a flat environment. Each file is stored in the storage with a header and a sequence of bytes. Files are accessible by local users and external users. EBS saves data in blocks and organizes them in hierarchy. EBS must be used by Amazon EC2 with an attachment of a provisioned size.

S3 storage can be easily scaled, EBS storage cannot. S3 is better for static data storage, such as backups. EBS is better for more actions such as reading and writing.

Q2: When would you consider a cloud infrastructure for your data science tasks?

I would consider cloud infrastructure when I don’t have access to a dedicated local server but I need to run computing tasks, both small scale and large scale tasks. On the other hand, even though I have a local server, I would prefer to use cloud when 1. Data storage of the local server is not enough; 2. the task is so simple that the local server is an overkill.

Q3: What is the difference between spot instances and reserved instances?

Spot instances enable you to **bid** on unused EC2 instances with a discount of up to 90% off on-demand instances. Reserved instances enable you to **reserve** an instance with a set of instance type, availability zone, platform, and tenancy, providing a discounted hourly rate and an optional capacity reservation for EC2 instances.

Q4: List the names of four software packages installed on the UCB AMI

I ran “sudo yummy grouplist” and got a list of installed groups

Four installed software packages: Electronic Lab, Emacs, Perl Support, PostgreSQL Database client

