Controlling Cloud using Phone

Project 5e

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Contents

1. Project Objective
2. Need for the project
3. Salient Features
4. System Architecture
5. Eucalyptus Cloud
6. Use-case Diagram
7. Class Diagram
8. Sequence Diagram
9. Screenshots

Project Objective

The objective of this project is to create a cloud and a suitable phone interface that can be used to control it for all routine administrative purposes.

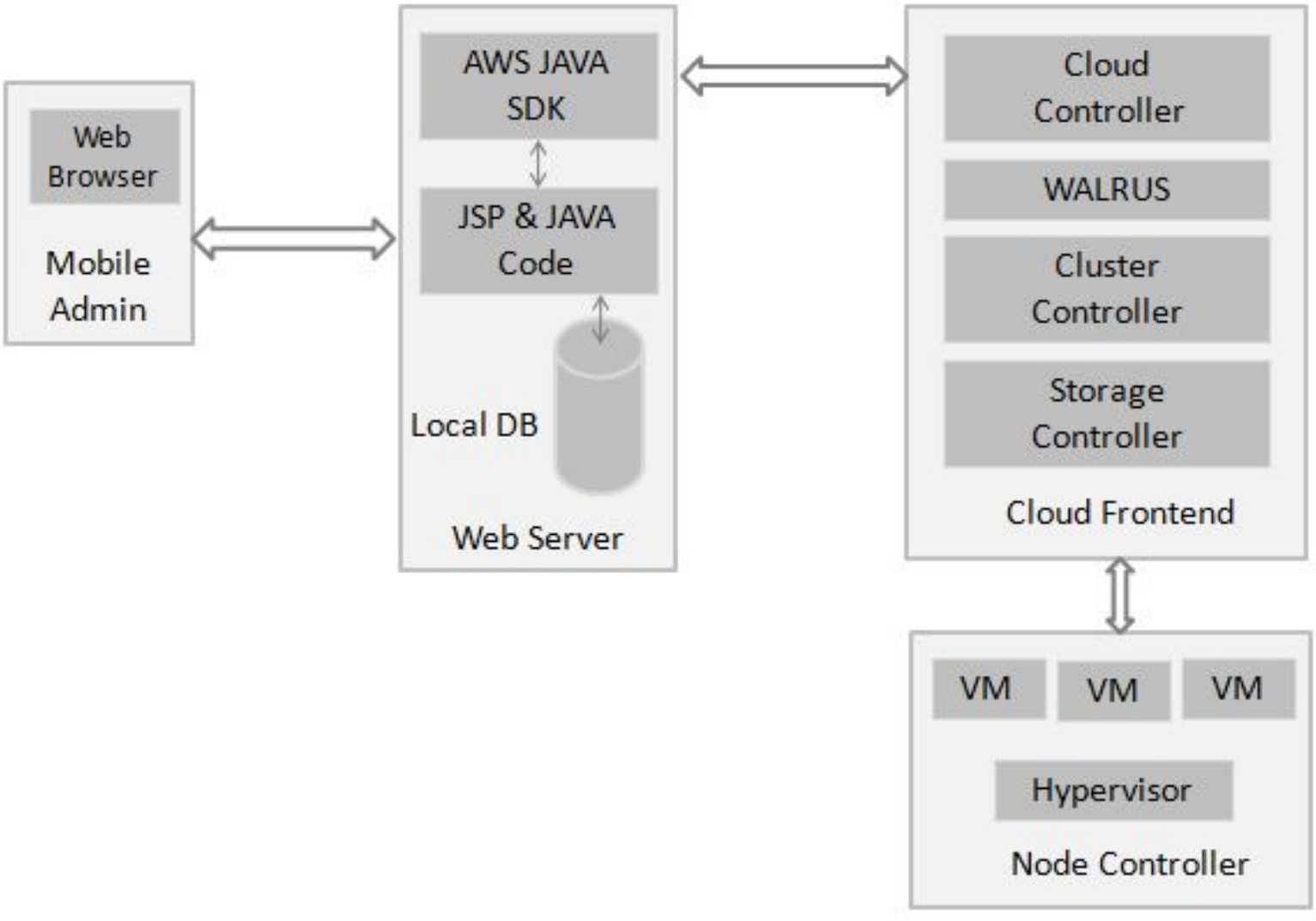
Need for the Project

1. No existing mobile admin for Eucalyptus
2. Providing flexibility to administrator
3. Ease in accessing/monitoring instances and resources

Salient Features

1. Instant cloud updates on the home screen
2. Twenty five use-cases for cloud administrative tasks (divided into three categories namely cloud controller, storage controller and network controller).
3. Quick links for most frequent use-cases (like launching instances, creating snapshots, attaching volume snapshots)
4. Tab view just like HybridFox so as to keep the administrator familiar with the application
5. Generalization to any cloud platform made over Amazon or Eucalyptus
6. The mobile web-app can run on any mobile/tablet having Internet access.

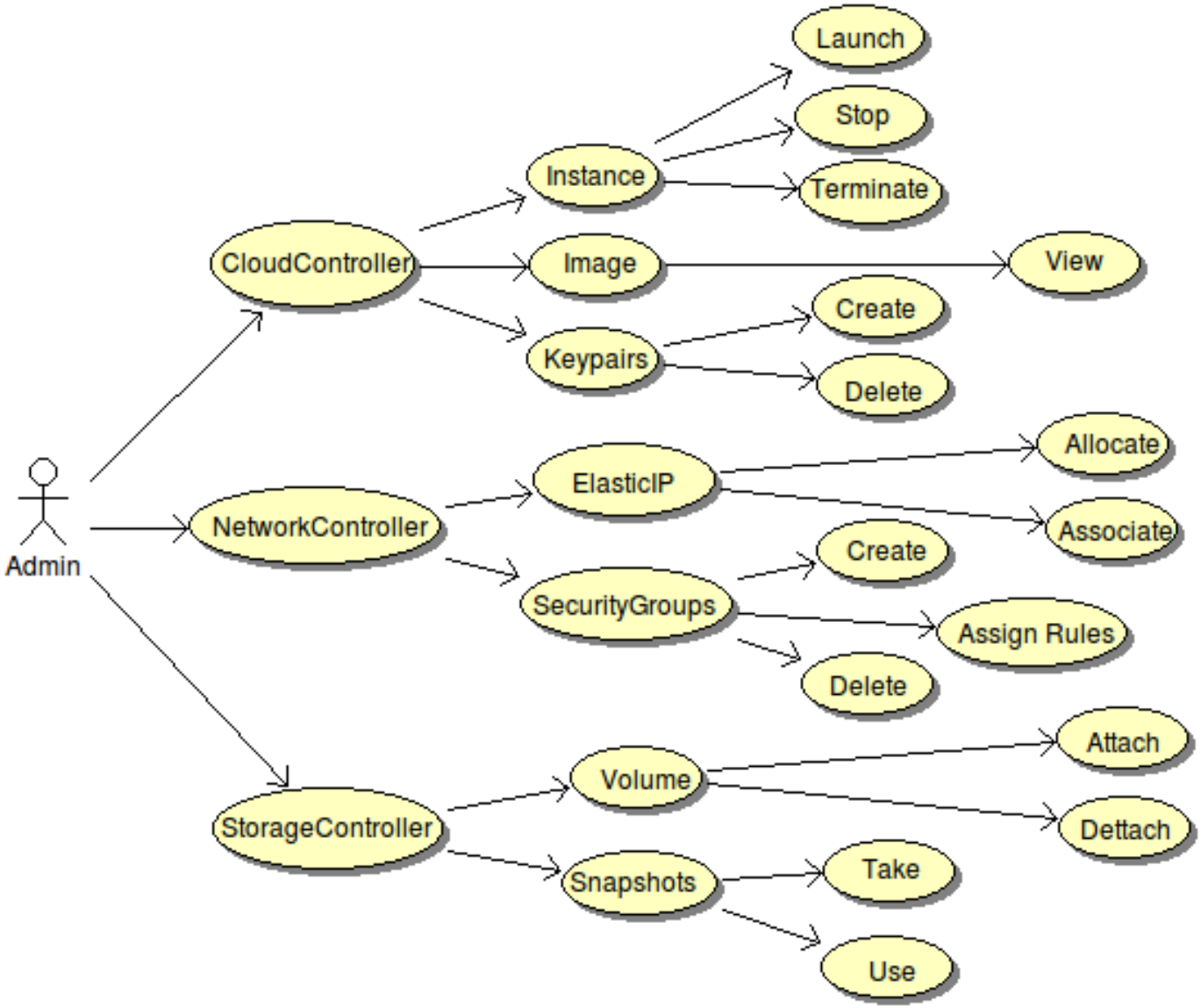
System Architecture



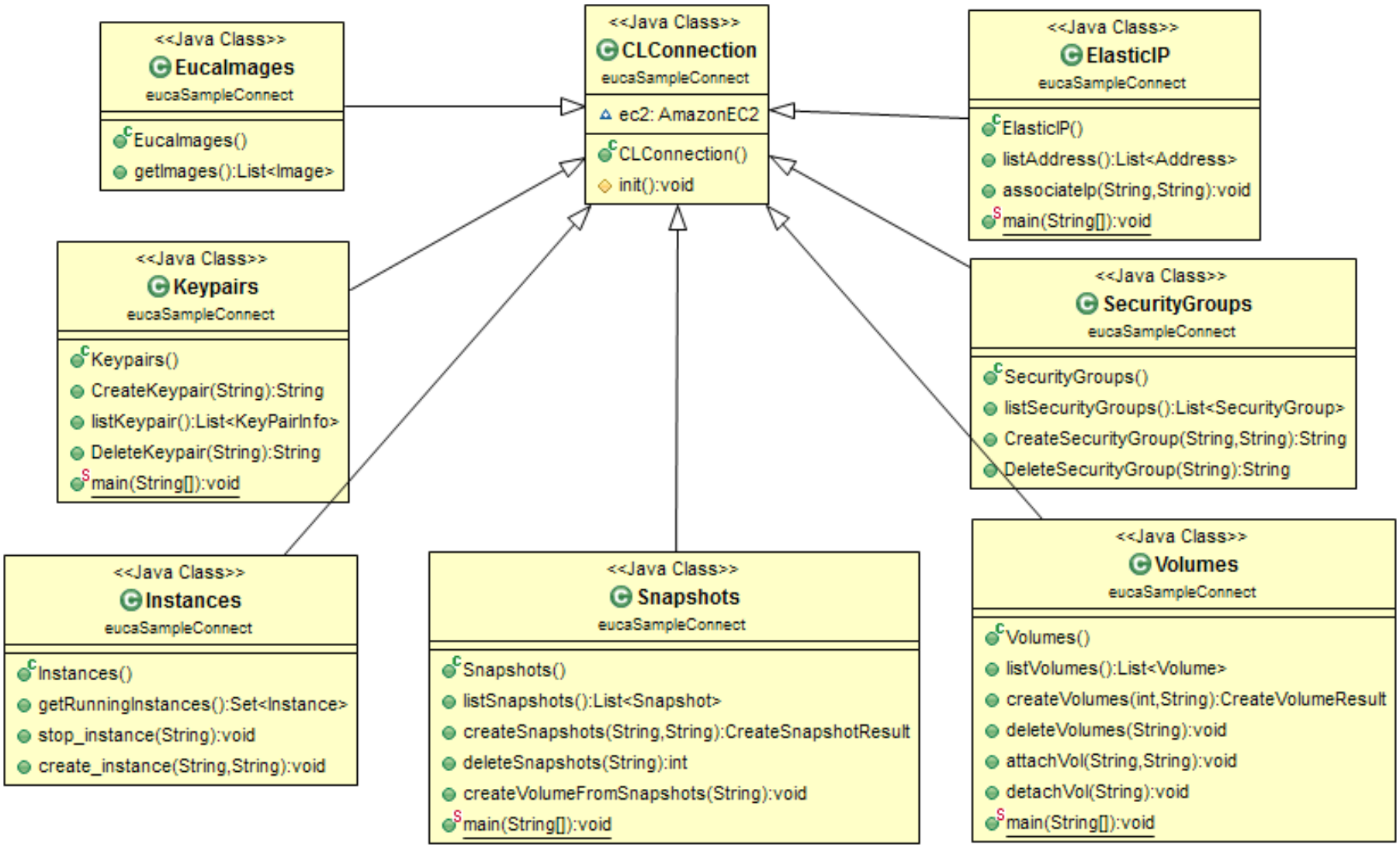
Eucalyptus Cloud

1. Node Controller (NC)
   - controls the life cycle of instances running on the node
   - collects data related to resource availability and utilization on the node
   - reports the data to CC
2. Cluster Controller (CC)
   - CC manages one or more Node Controllers and deploys/manages instances
   - Manages networking for the instances running
3. Walrus Storage Controller (WSC)
   - provides persistent simple storage service
4. Storage Controller (SC)
   - provides persistent block storage for use by the instances
5. Cloud Controller (CLC)
   - monitors running instances
   - information about availability and usage of resources in the cloud
   - decides which clusters to use for provisioning instances

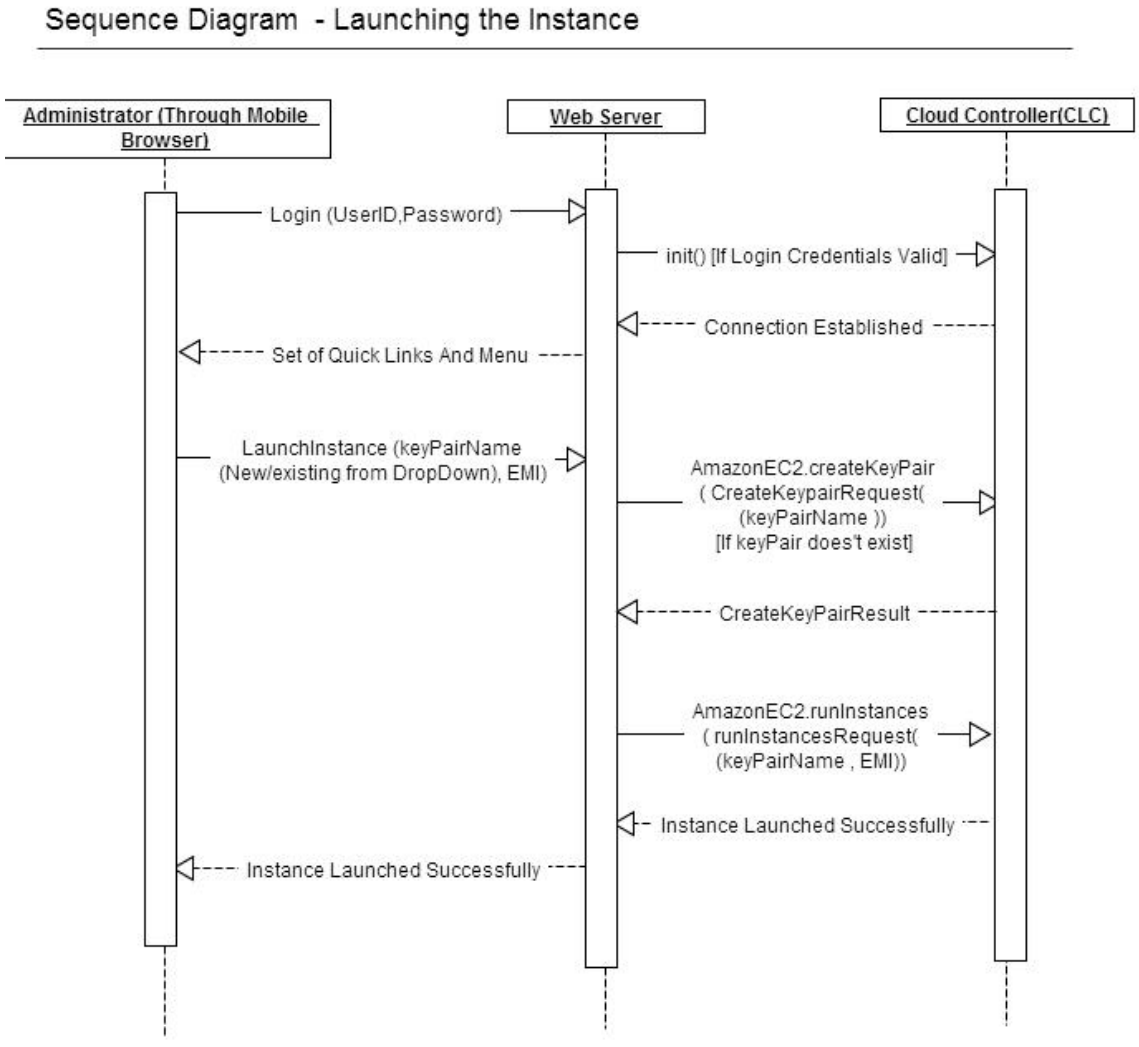
Use-Case Diagram



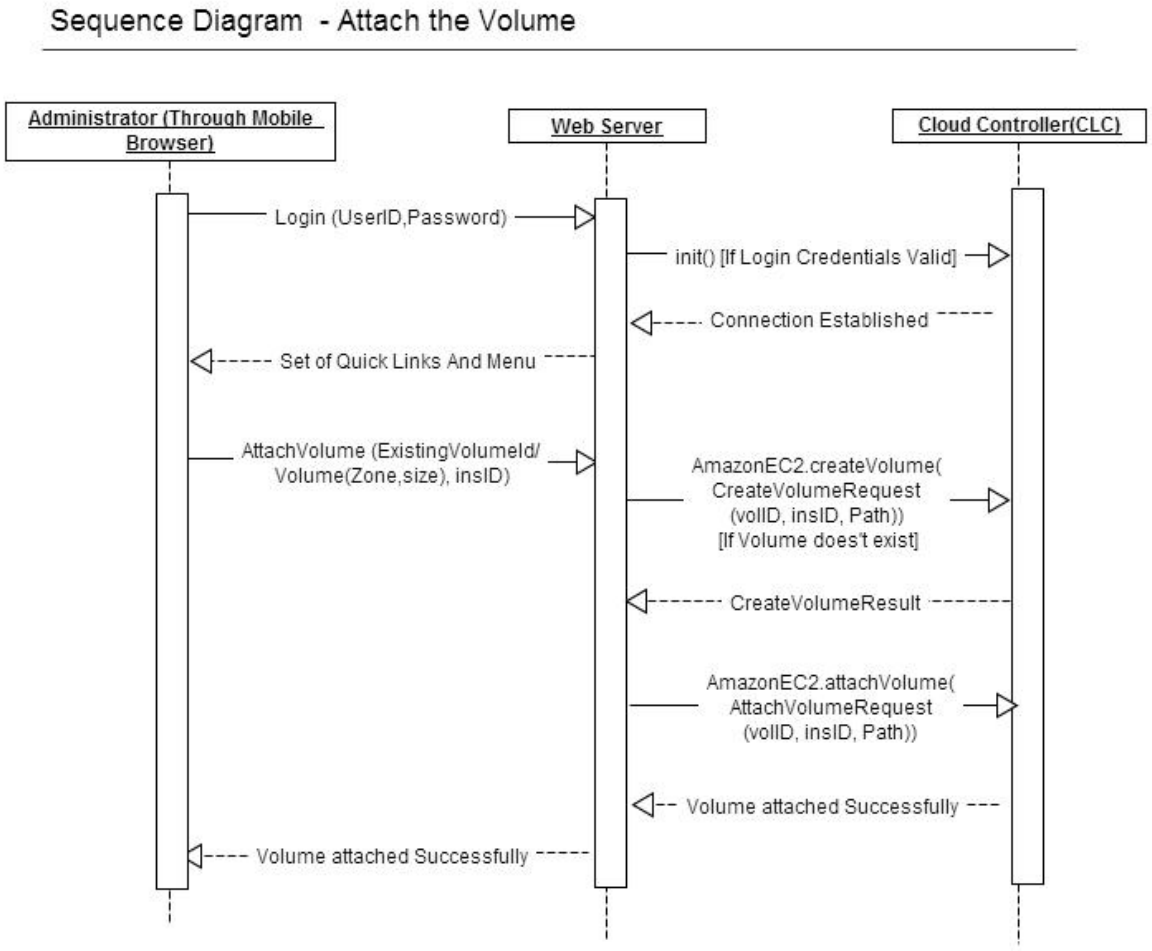
Class Diagram



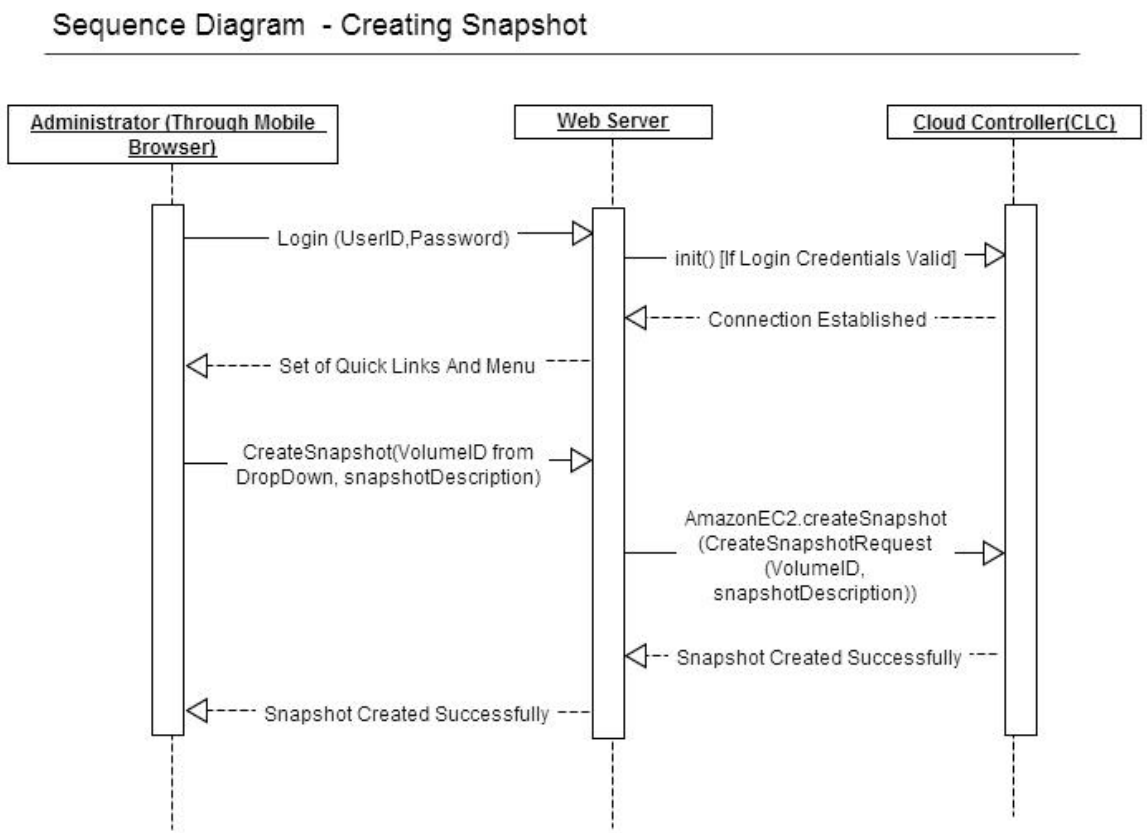
Sequence Diagram



Sequence Diagram(2)



Sequence Diagram(3)



Screenshots

Screenshots(2)

Screenshots(3)

Screenshots(4)

Screenshots(5)

Screenshots(6)

Thank you