

CS301: ITSA

GROUP 8

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Jasmine



Wei Hao



Junxiang



James



Wen Jie

Project Proposal

Hotel Booking System

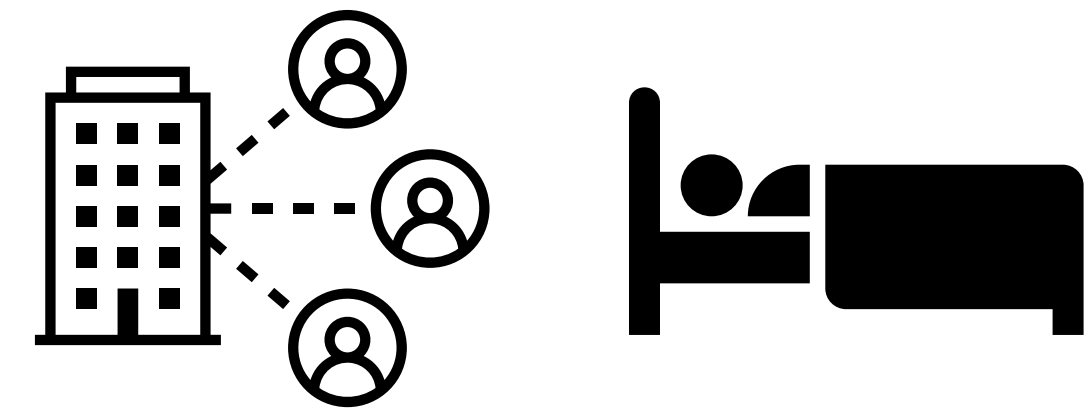


Background



Customers

< Ascenda >



Hotels

Business Needs

```
graph TD; BN[Business Needs] --- S[Speed]; BN --- SC[Scalability]; BN --- DS[Data Security]; BN --- M[Maintainability]; S --- A[Ascenda]; SC --- A; DS --- A; M --- A;
```

Speed

Scalability

Ascenda

Maintainability

Data Security

Stakeholders

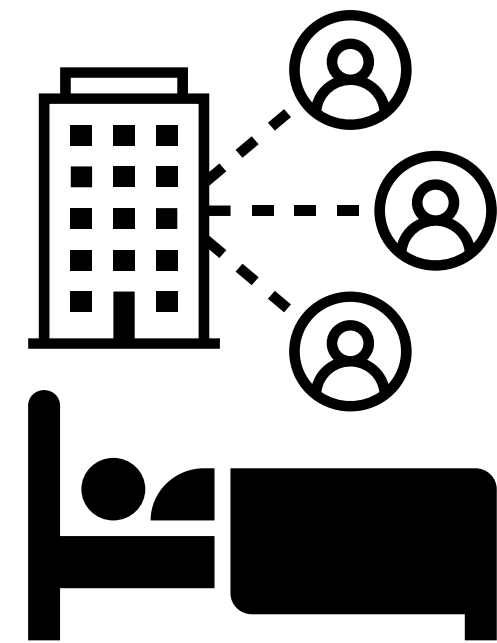
Business



Ascenda



Customers



Hotels

IT



Ascenda



Features > Use Cases

**Hotel
Search**



**View
Available Rooms**

**Booking
Data**



**Login
To System**

**Destination
Search**



**Search Destination
By Location**

**View Hotels
By Price**

Book Hotel

**Autocomplete
Search Input**

**Check Booking
Information**

Quality Metrics

Performance



Autocomplete
<100ms/request

Reliability



SLA
99.9% Uptime

Maintainability



Deployment
Zero Downtime

Security



Mozilla Observatory
A Grade

Quality Metrics

Performance



**Autocomplete
<100ms/request**

Reliability



**SLA
99.9% Uptime**

Maintainability



**Deployment
Zero Downtime**

Security



**Mozilla Observatory
B Grade**

<ul style="list-style-type: none">• Caching• Load Balancer	<ul style="list-style-type: none">• Multi-AZ Datacenters• Active/Passive Standby• AWS Application Load Balancing• AWS Auto-Scaling Group (80%/20%)	<ul style="list-style-type: none">• AWS Codedeploy	<ul style="list-style-type: none">• OWASP Secure Coding Practices• WAF Filter Rule Firewall• Separate Web & DB Servers (DMZ)• Revalidate Data (Server Side)
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Proposed Budget

Services



Cost (\$/Month)



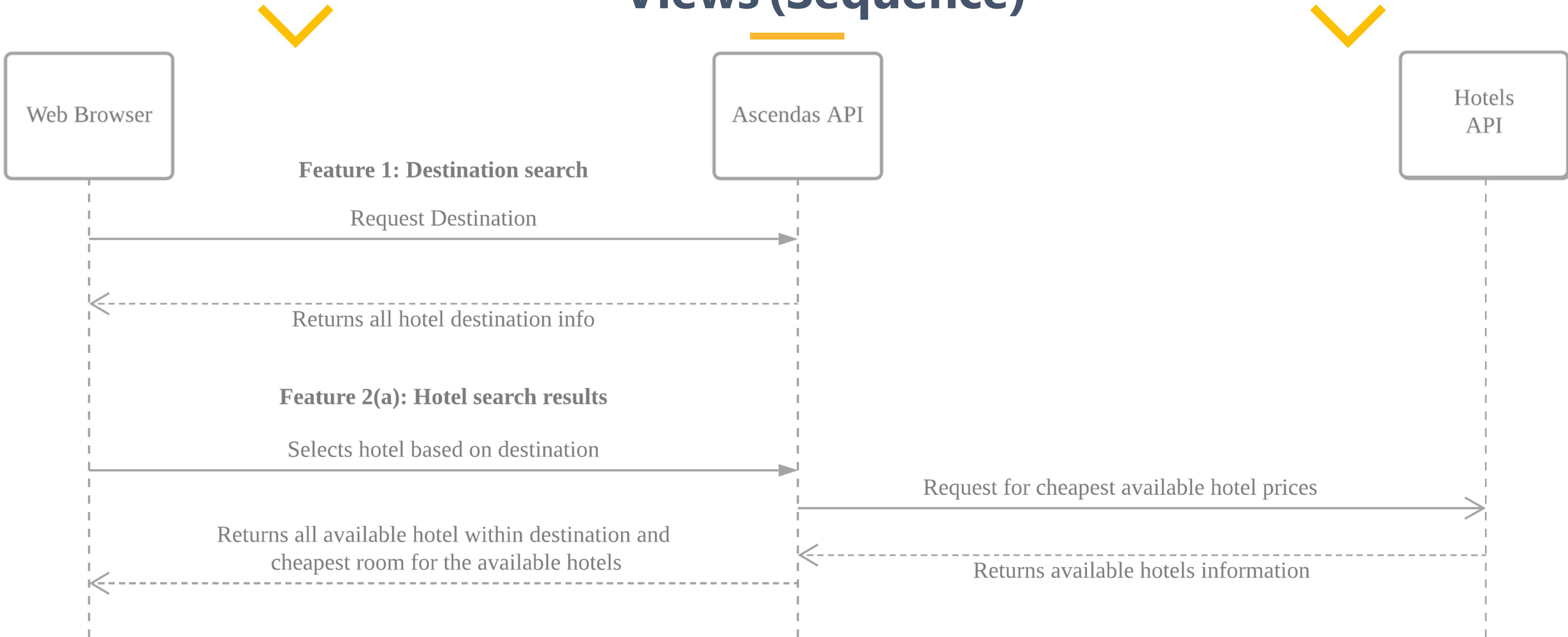
AWS Elastic Beanstalk (EBS)	\$6.26
AWS Application Load Balancer (ALB)	Free Tier
AWS RDS MySQL	Free Tier
AWS Simple Cloud Storage (S3)	Free Tier
AWS API Gateway	Free Tier
AWS CloudWatch	Free Tier
AWS API Gateway	Free Tier
AWS CodeDeploy	\$0.40
AWS CloudFront	Free Tier
AWS Web Application Firewall (WAF)	\$5.60
AWS Lambda	Free Tier
Domain Name (Domain.com)	\$6.99
Total:	\$19.61

Views (Sequence)

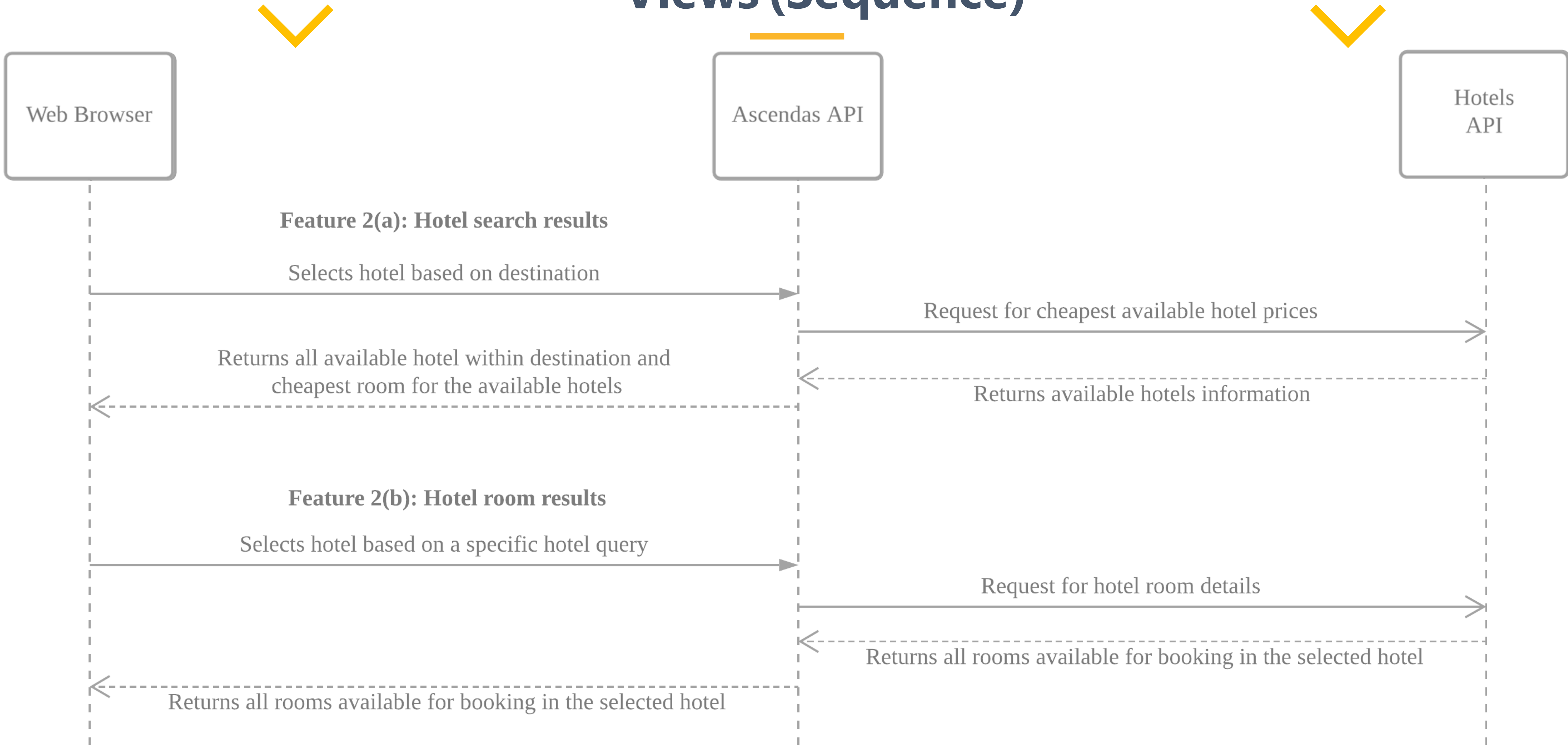
Sequence Diagram



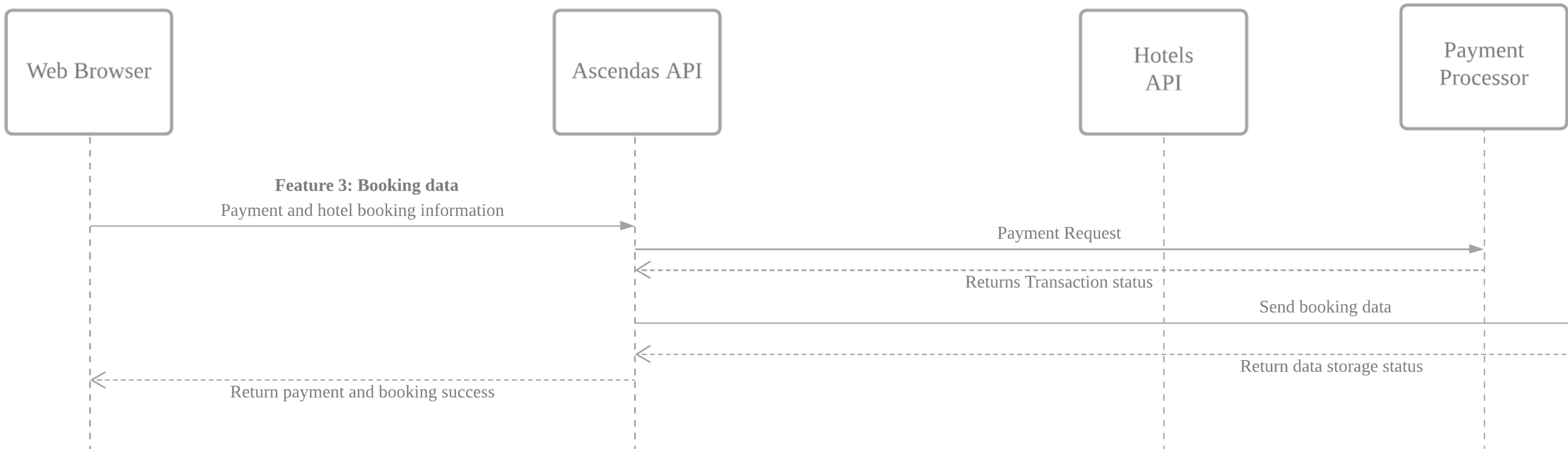
Views (Sequence)



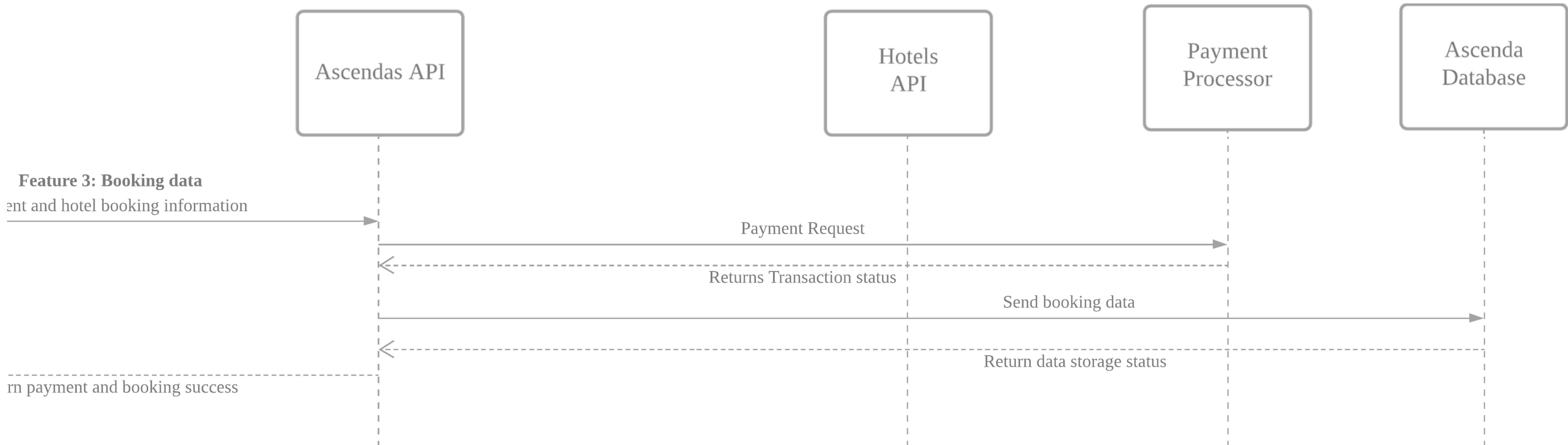
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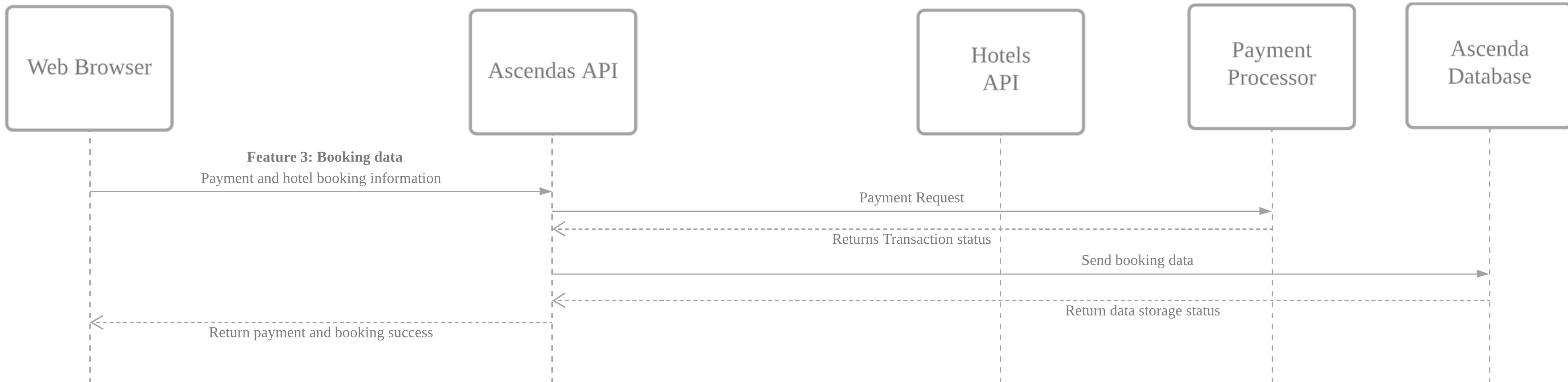
Views (Sequence)



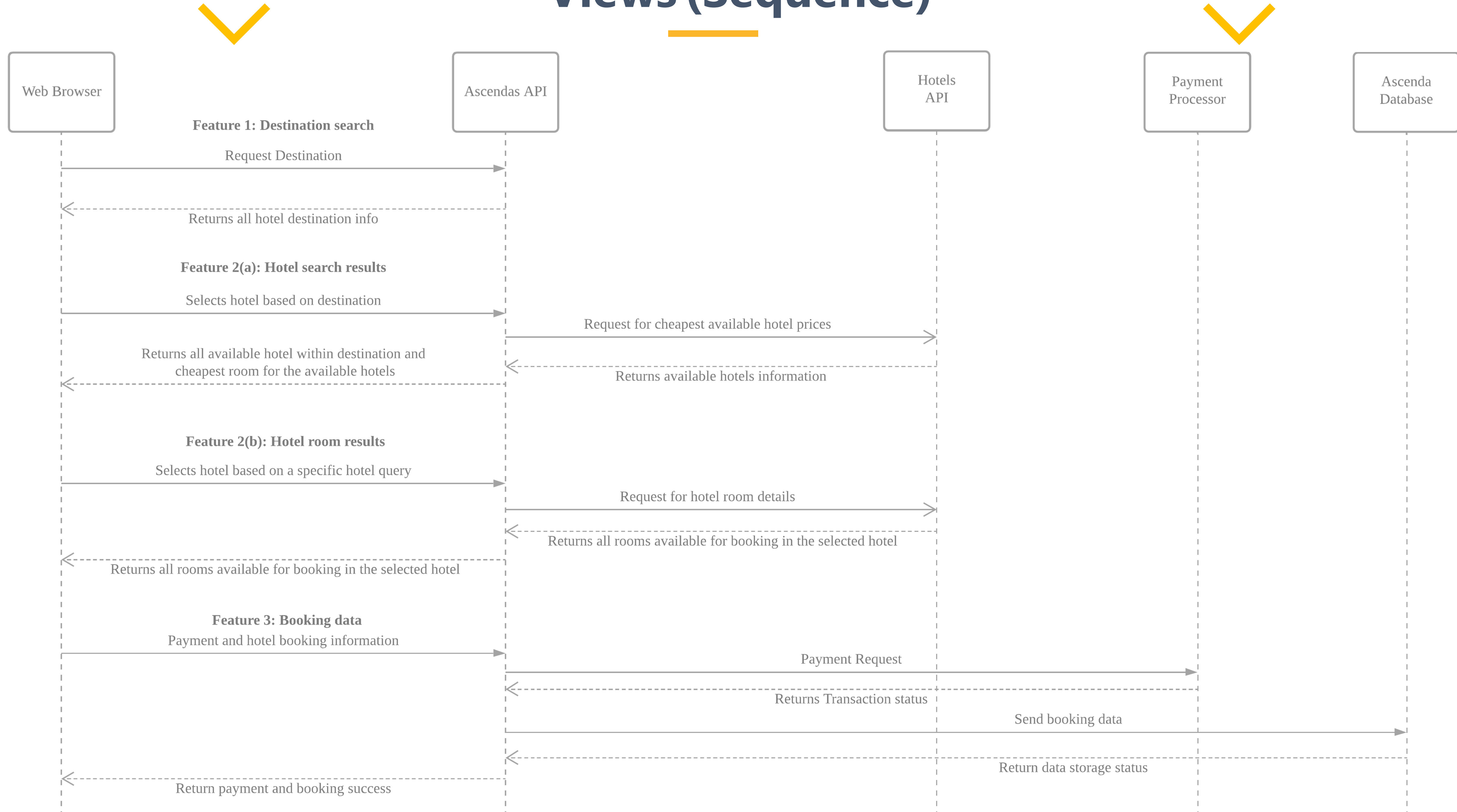
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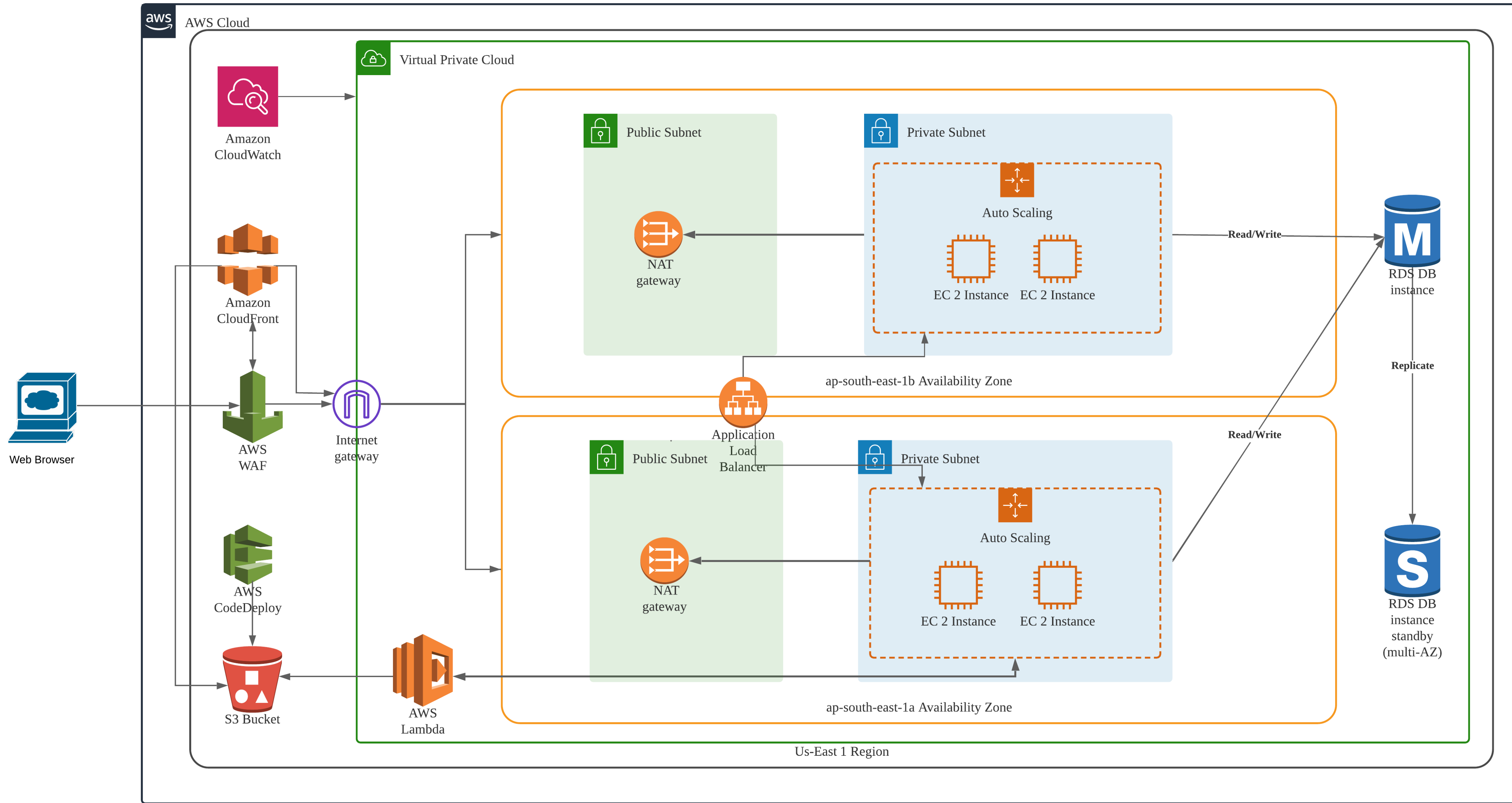
Views (Sequence)



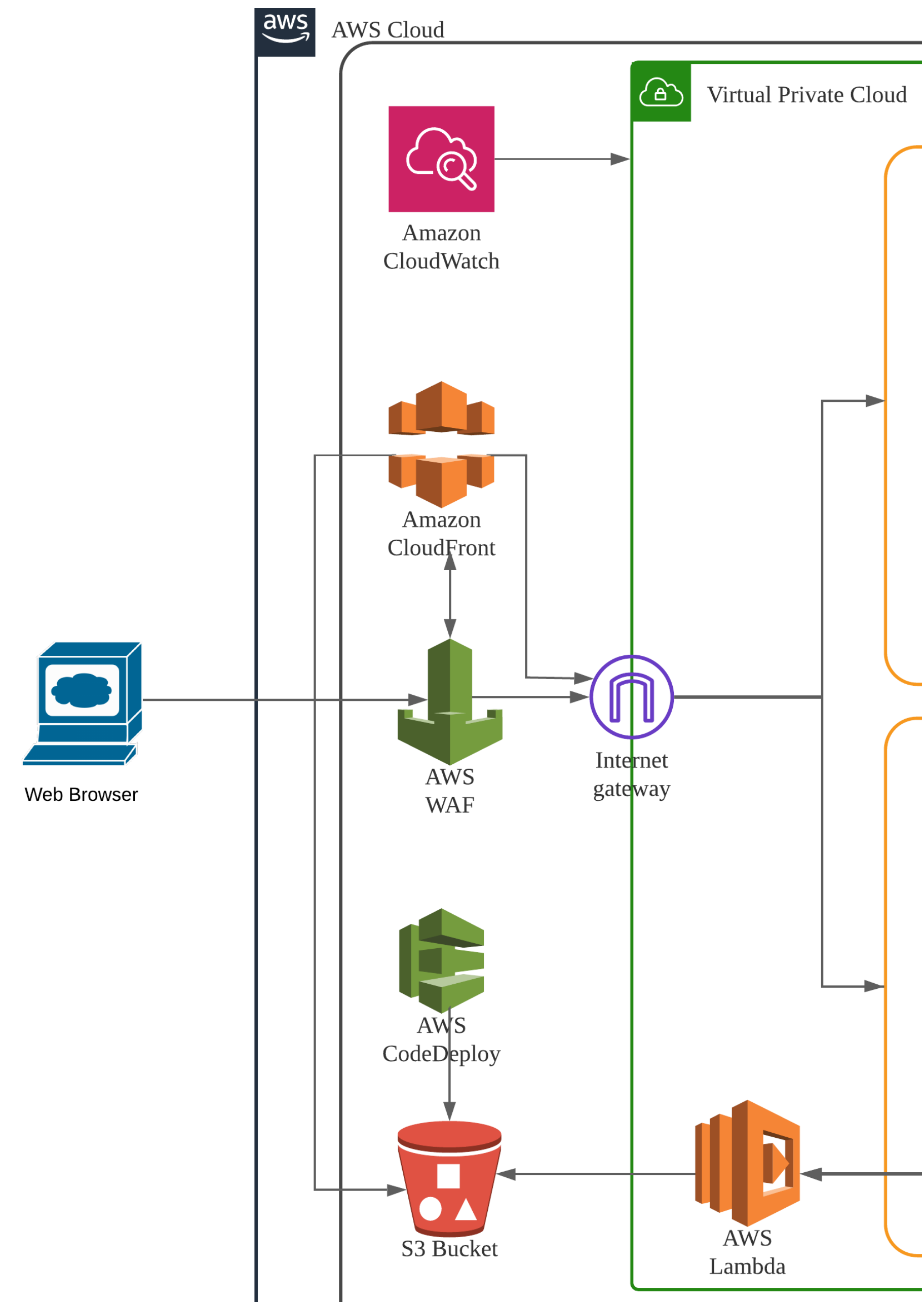
Views (Sequence)



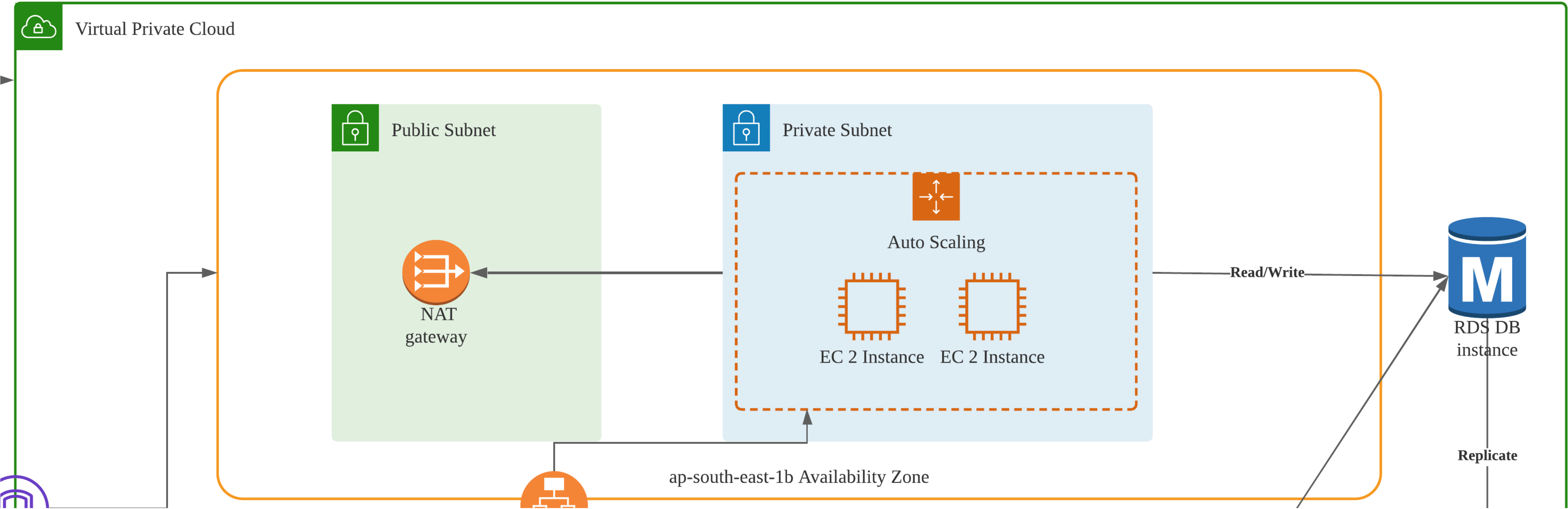
Views (Architecture)



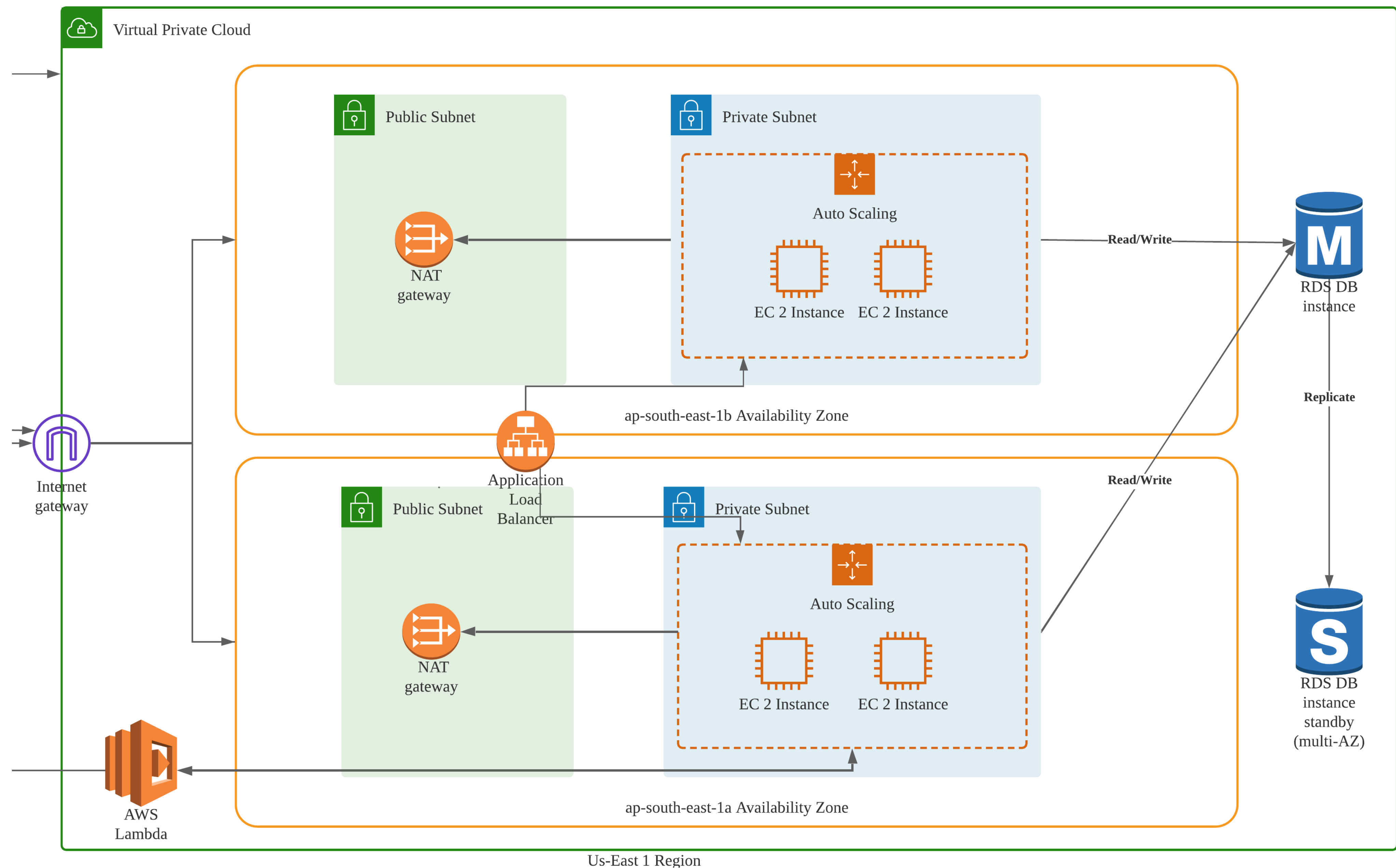
Views (Architecture)



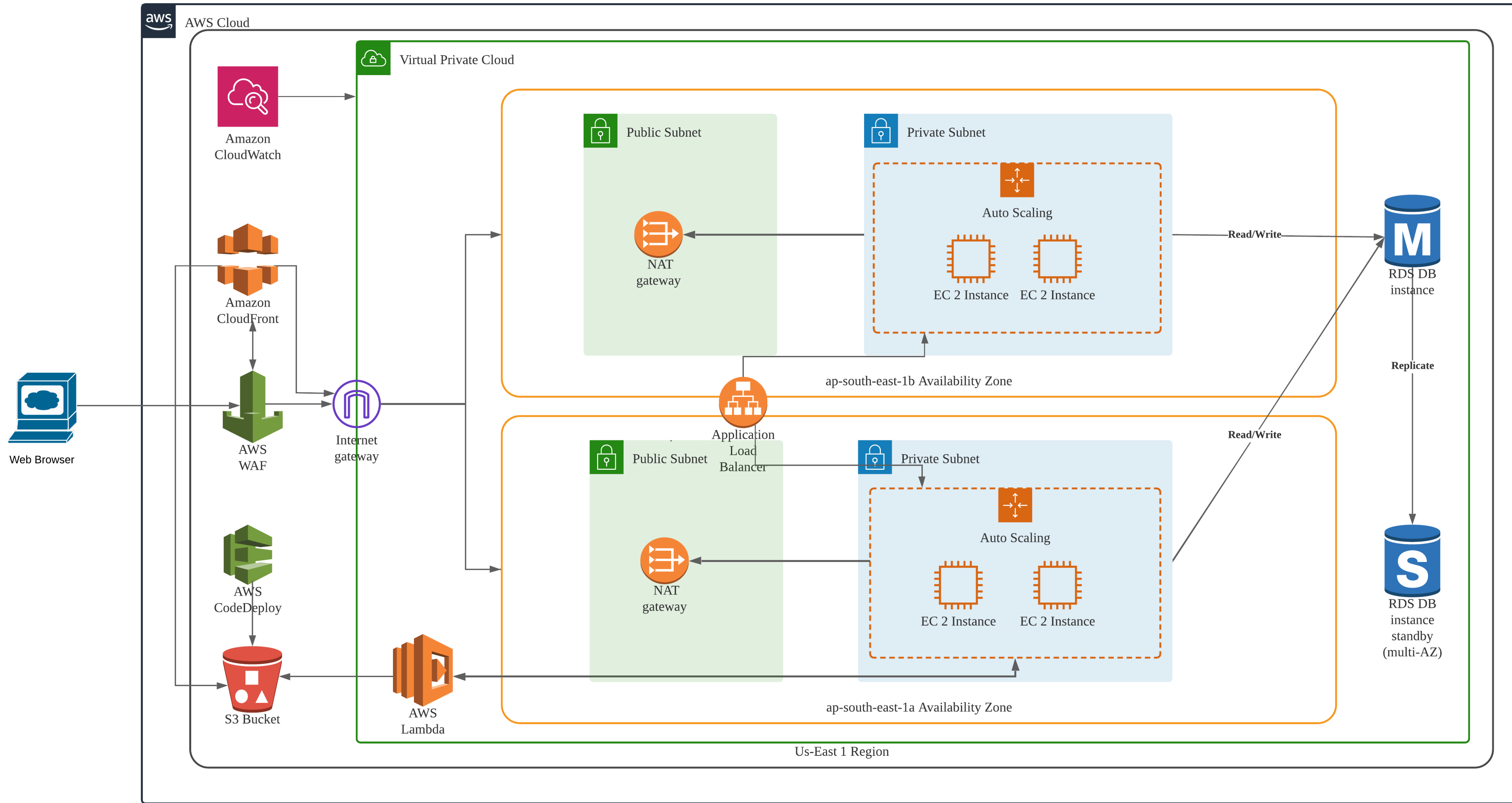
Views (Architecture)



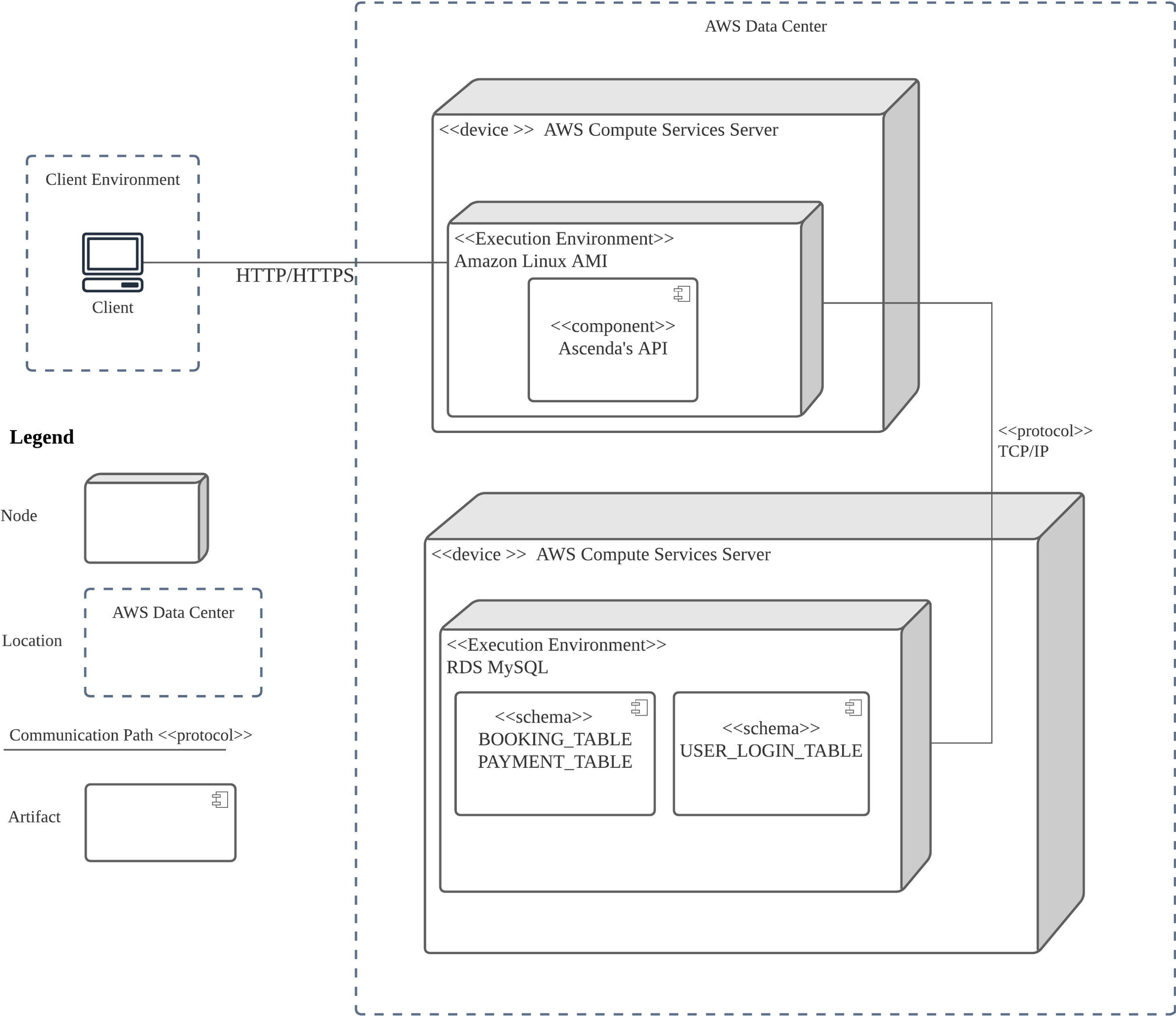
Views (Architecture)



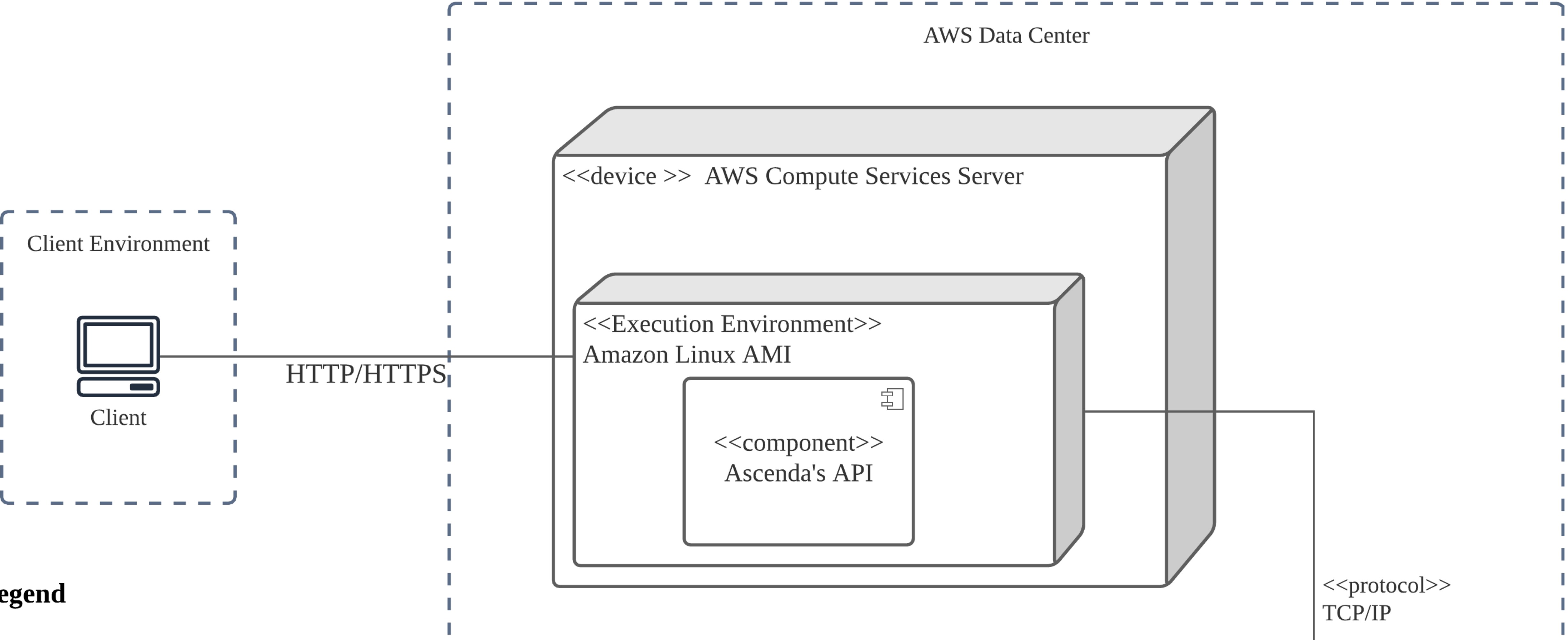
Views (Architecture)



Views (Deployment)



Views (Deployment)



Views (Deployment)

Legend

Node

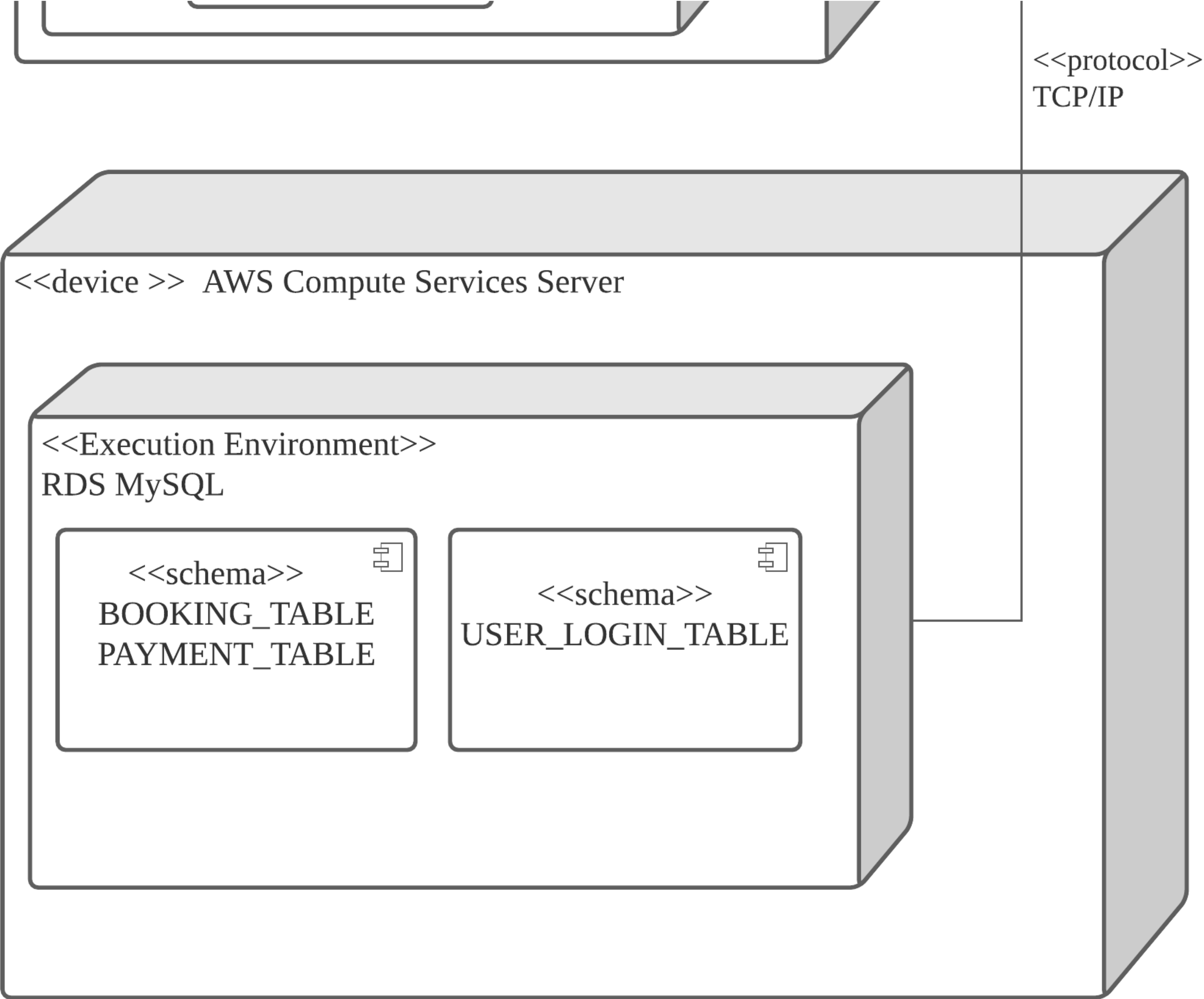


Location

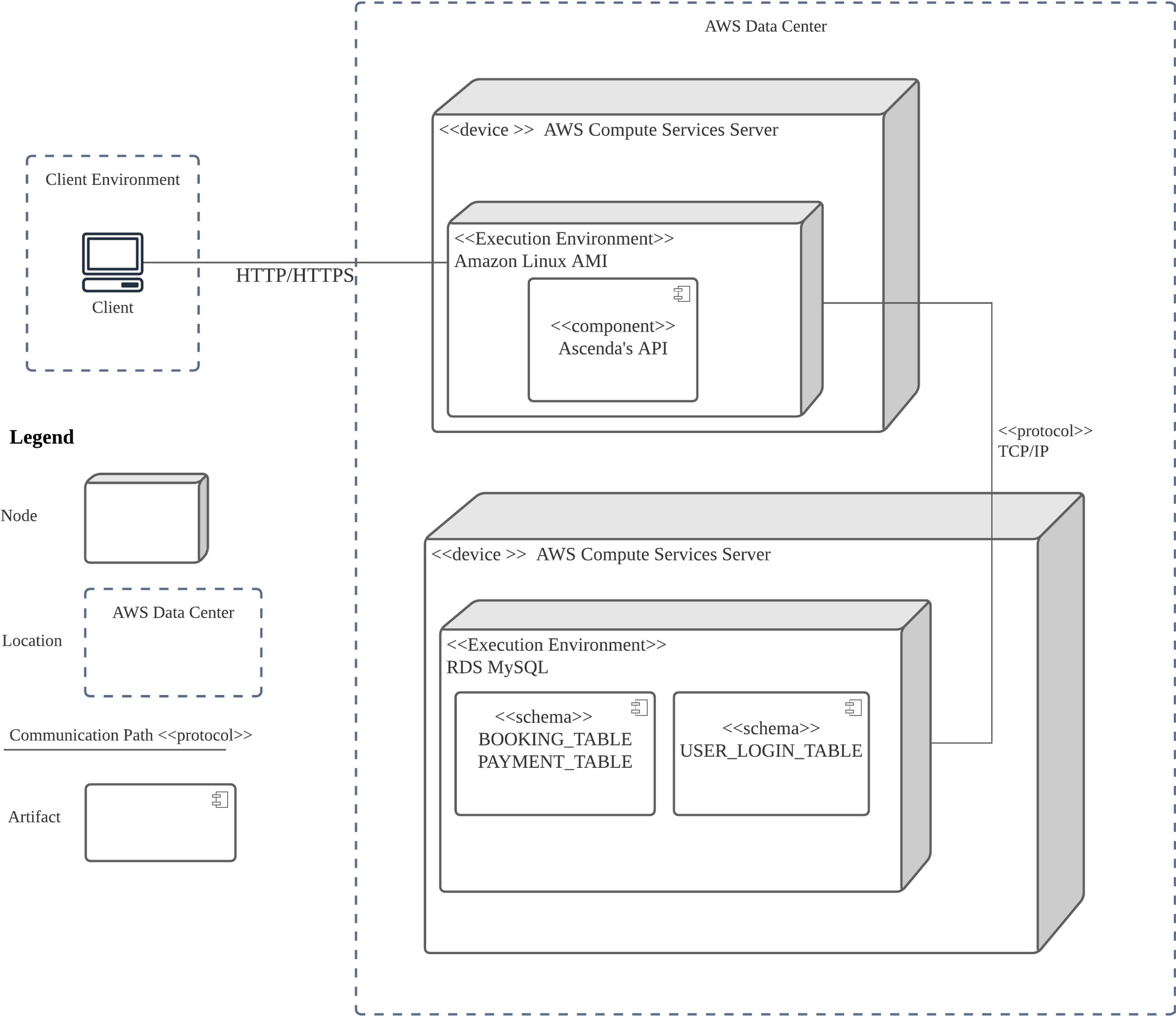


Communication Path <<protocol>>

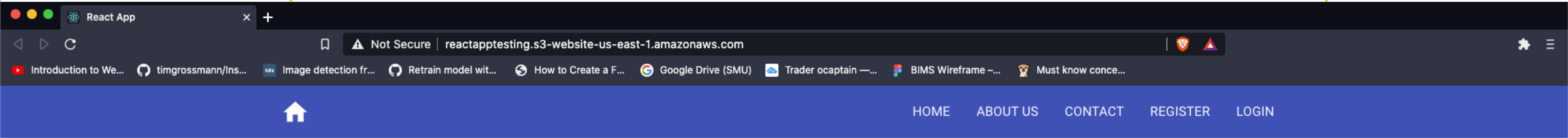
Artifact



Views (Deployment)



Views (Mockups)



Search By Destination

[Search By Hotel](#)

Search for Hotels

Destination

Check In:



Check Out:



Number of Guests:

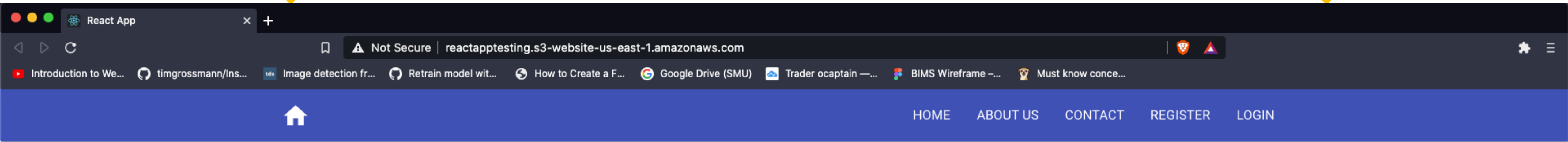


Rooms:



[Check Availability](#)

Views (Mockups)



Search By Destination

Search By Hotel

Search for Available Rooms

Hotel

Search Hotel

Check In:

dd/mm/yyyy



Check Out:

dd/mm/yyyy



Number of Guests:

1 Adult



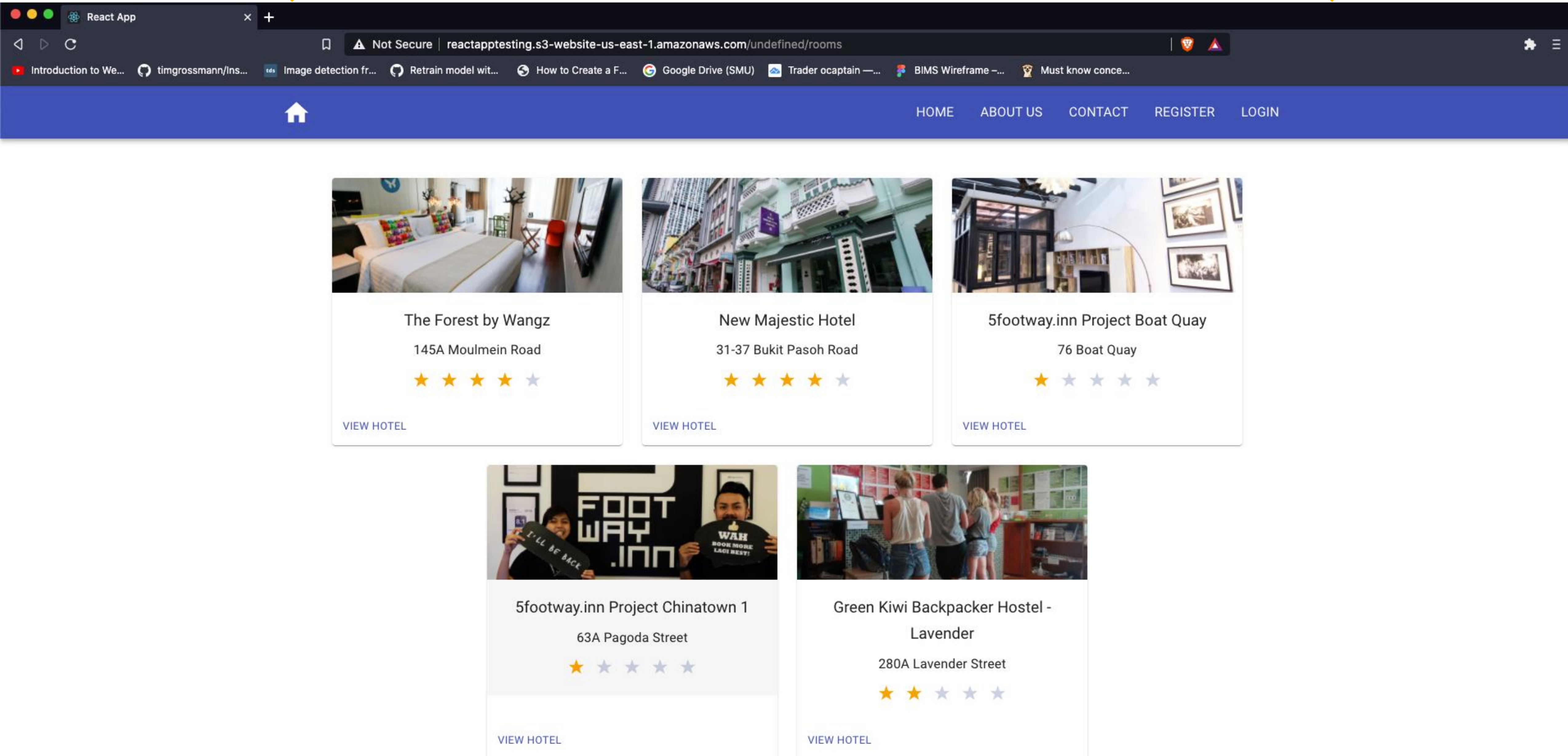
Rooms:

1 Room



Check Availability

Views (Mockups)



Thank You

