19269489 - Group 4

Task 2: Analysis and Specify Software Quality Requirements

CloudTables-Service: a web interface for running on desktop or tablet computer for restaurant service staffs to help them providing services to the restaurant customers.

Security and Privacy protection

- Customer information should be secured via encryption and inaccessible to any unauthorised actors.
- Payment and sensitive information should be stored securely with strong security measures such as encryption and inaccessible to any unauthorised actors. The data should not be held any longer than necessary under GDPR regulations.

Performance

- Systems should be running at all operational times and levels to ensure that business can run smoothly.
- There should be minimal delays when using the system with no lag and no disconnection
- Service should not strain the hardware it runs on (e.g. efficient CPU and GPU usage)
- It should be possible to run multiple requests simultaneously without losing significant performance

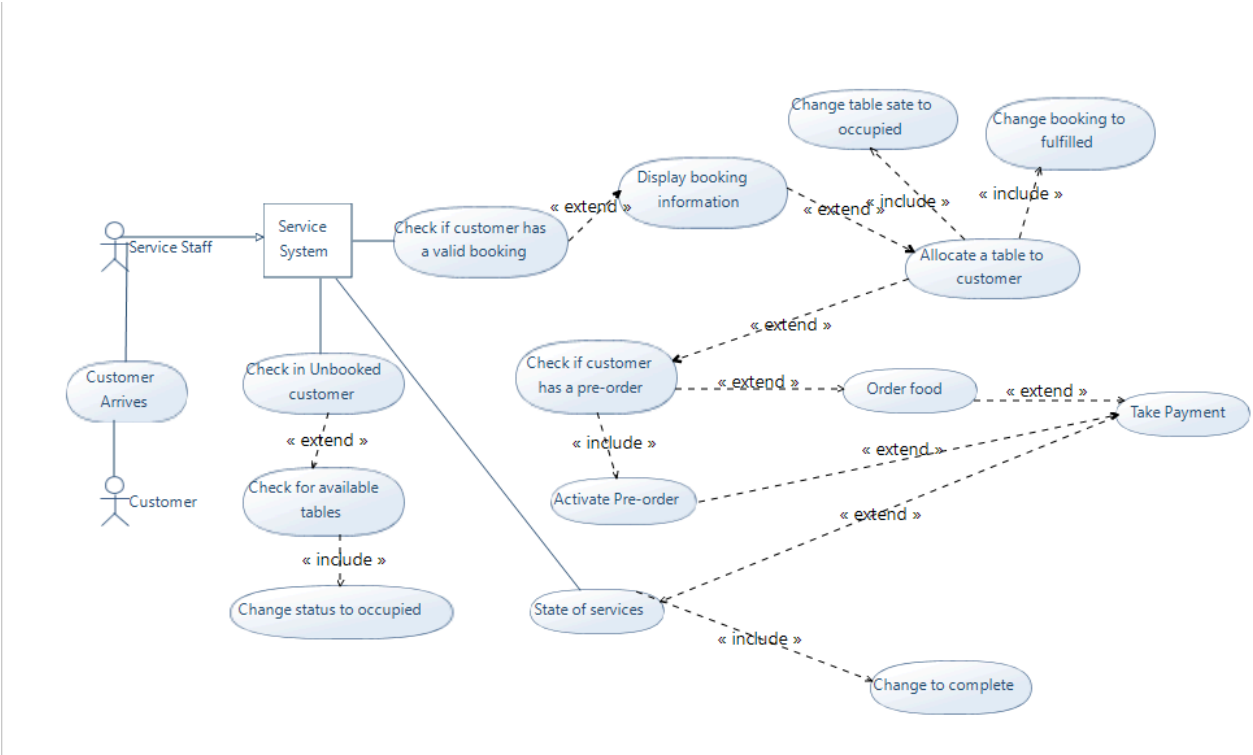
Reliability

- The service must run at all times with regular maintenance and updates required to improve reliability
- A policy should be implemented in case of service going down
- Backups of the service must be regularly updated in case of service failure
- Service must be able to run even during other system failures

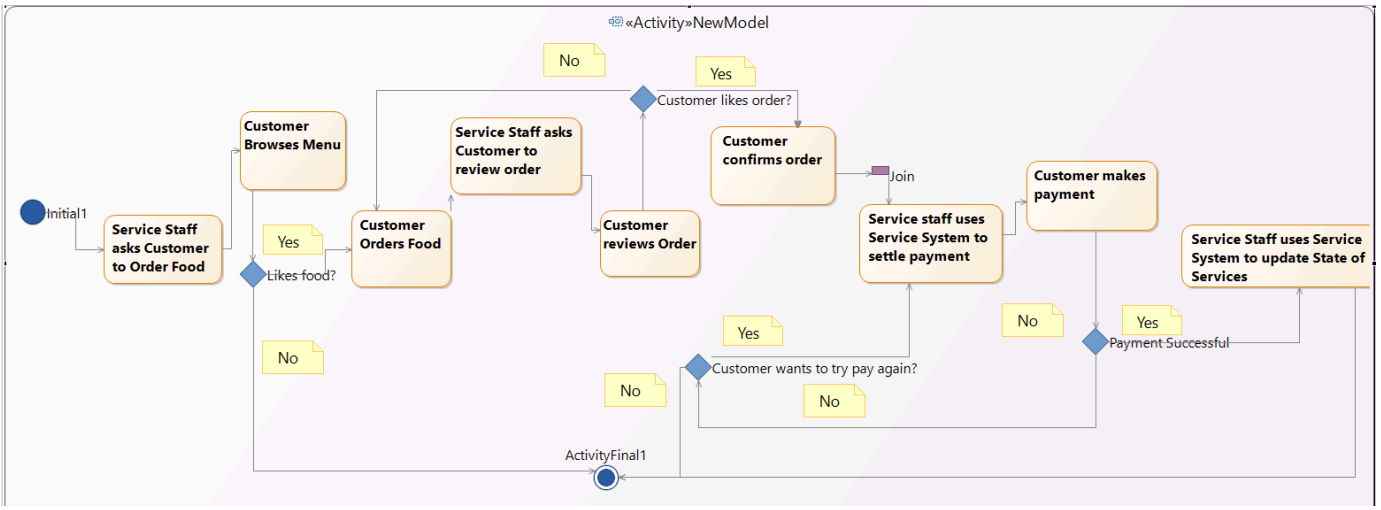
Scalability

- The service must be able to run for over 100+ clients
- Service must be able to store data for the 100+ clients
- Service must be able to increase the scalability over time to more clients
- Clients must have equally high performance service

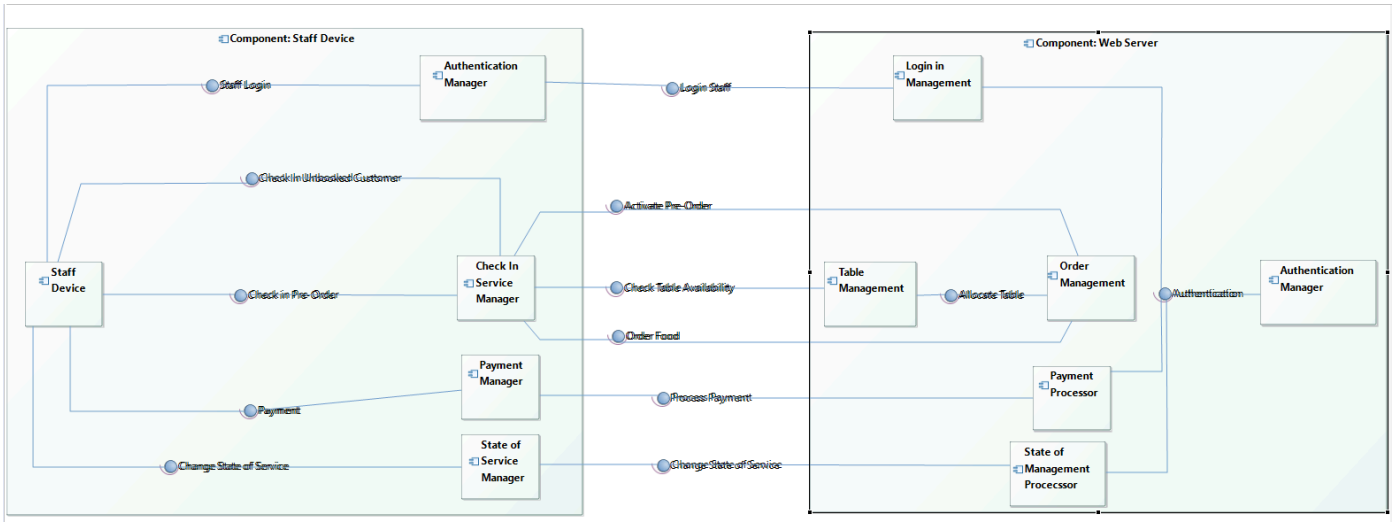
Task 3a: Use Case Model



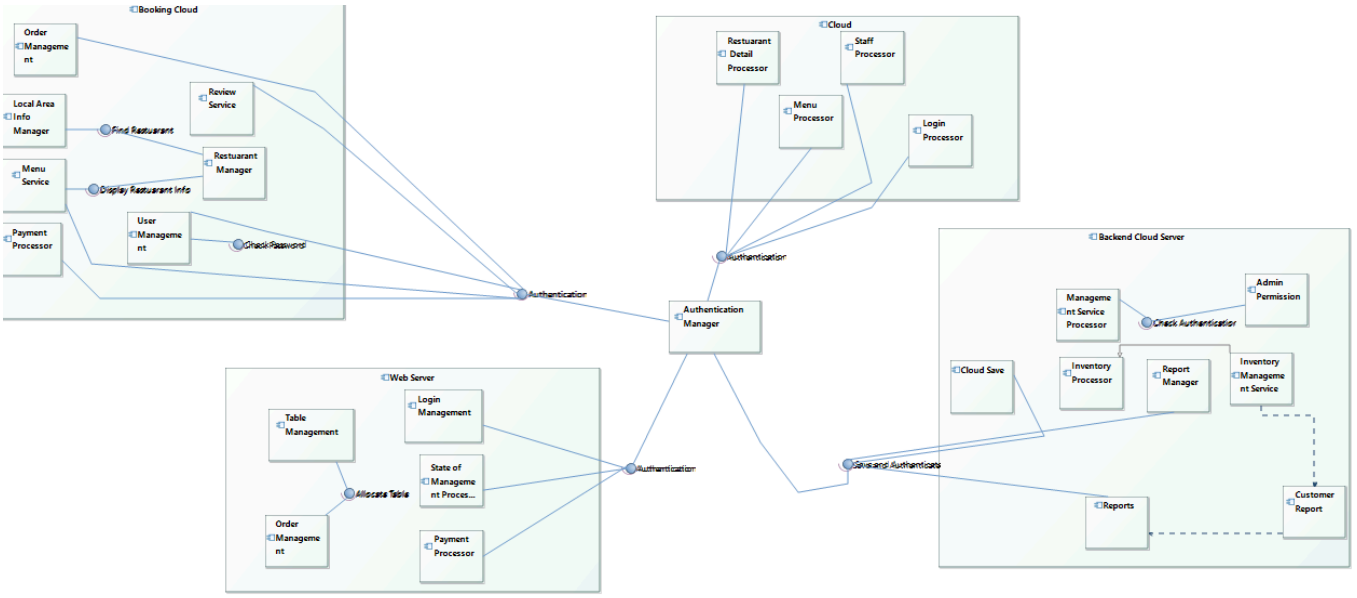
Task 3b: Activity Model



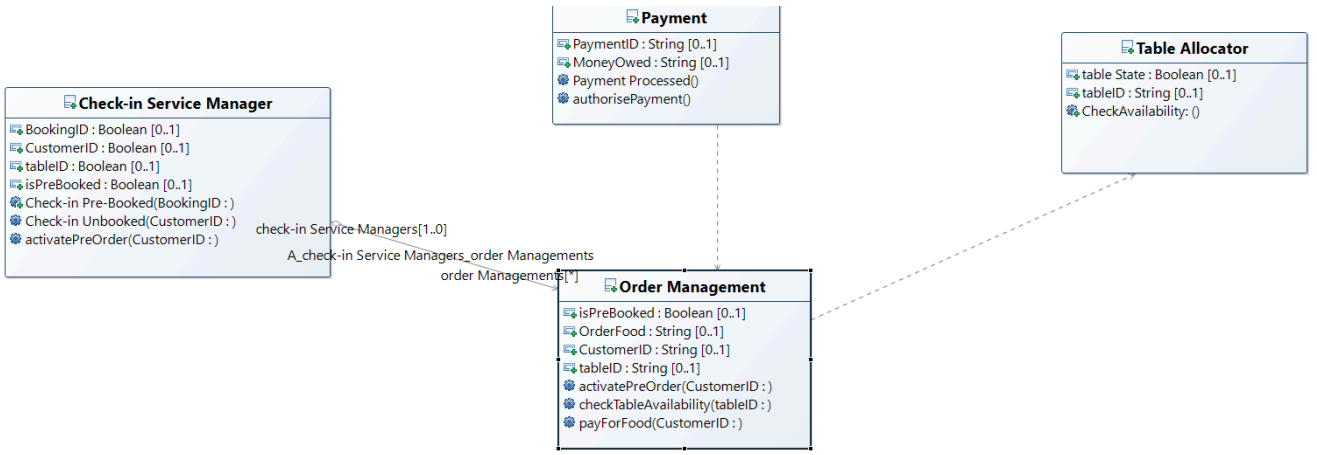
Task 4a: Software Sub-system Architecture



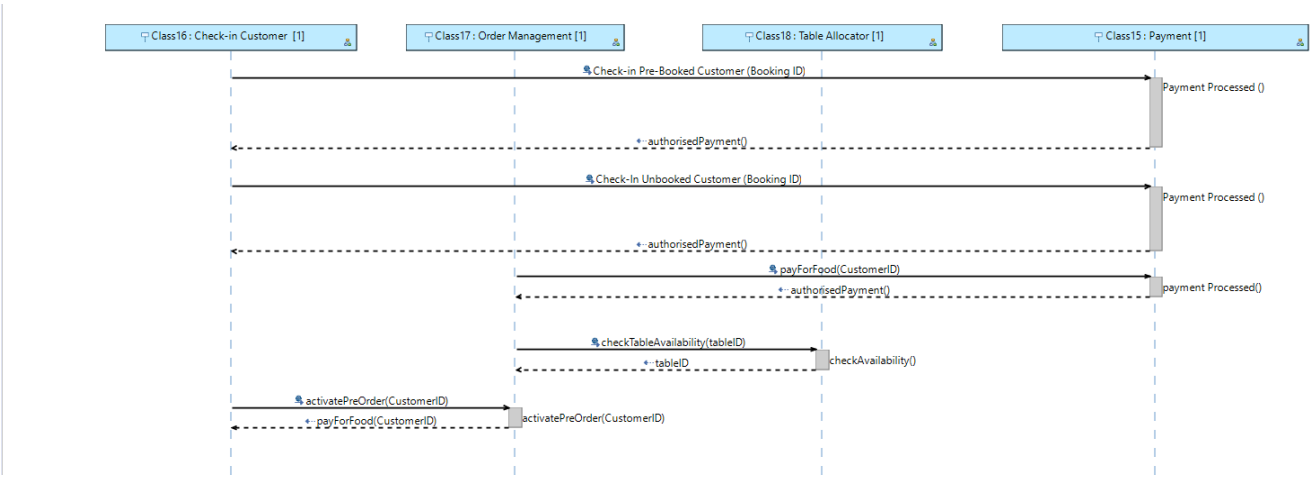
Task 4b: All group members Sub-System put together



Task 5a: Structural Model



Task 5b: Behavioural Model



Contribution to Team Work and Project Management

As a group, I worked well with all my group members, getting along with them all and making amazing progress with the coursework. I was elected Project manager to ensure that we got our work done. We documented our meetings and progress with each other. We chose our own specific subsystems and then made plans to meet up and begin our coursework. Having meetings regularly and giving each other feedback on our work and progress. I helped plan meetings and discuss how we should plan our next moves and how to do each task. We also made a group chat for us to communicate with each other. I did Service Staff and asked for feedback from all the members to help improve it. For task 4B, we all came together and helped integrate our subsystems together.

Technical Contributions

I set up the GitHub repository and kept a track of my work, and the other members' work, by uploading it to the GitHub repository.