



# QA-Cinema Project

TEAM-AKAM: Asshwin, Kevin, Alin, Matthew



# Introduction:

A web application which facilitates movie tickets booking and more

**Name:** Kevin Doan  
**Role :** Product Owner  
**Specializes in:** Frontend, Jira, Git, Routing, testing.

**Name:** Alin Ivan  
**Role :** Software Developer  
**Specializes in:** Backend , Frontend, Databases, Cloud, Testing

**Name:** Asshwin  
**Role :** Scrum Master  
**Specializes in:** Frontend, Backend, Testing, Styling

**Name:** Matthew Holmes  
**Role :** Software Developer  
**Specializes in:** Frontend, Testing

## MERN stack

- MongoDB
- Express
- React
- NodeJS



# Approach

**Methodology** - Agile/Scrum. Incremental and iterative processes

**Jira** - Online Kanban board used to measure sprints/backlogs/user requirements needed for the whole project.

<https://kevinkcd.atlassian.net/secure/RapidBoard.jspa?rapidView=8&projectKey=CP&selectedIssue=CP-20>

**Assigned Roles** - Product owner, Scrum Master, Software developers.

**Github** - Used for version control. Allowed us to continuously work on a project whilst pushing and pulling commits.

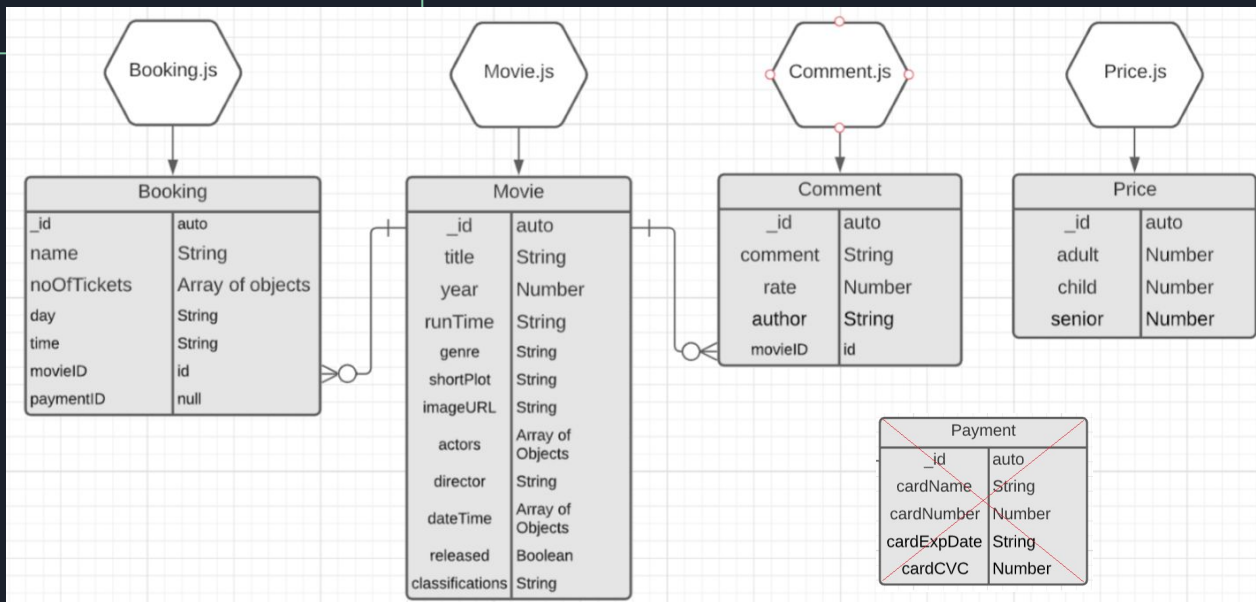
**GIT** - Using git for management of our version control system , github.

**Bootstrap** - A front-end framework used to create more modern design on websites.

# Concept and Design

- Storage patterns
- Object-model approach
- Data access security

## Data models



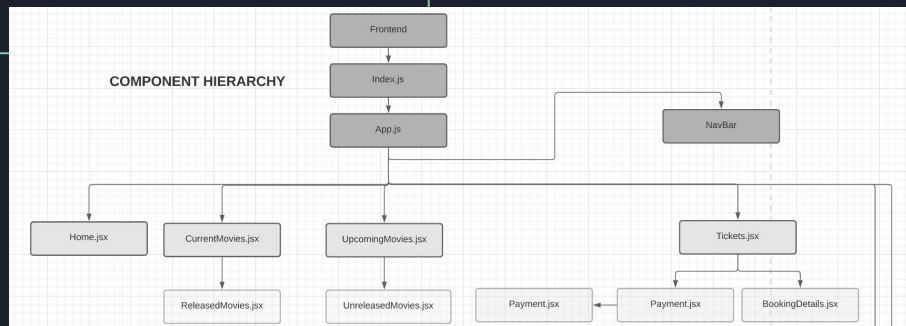
See ERD iterations in documentation folder or at:

[https://lucid.app/lucidchart/e4383f09-a11b-416a-ba82-c149ba83043e/edit?page=0\\_0#](https://lucid.app/lucidchart/e4383f09-a11b-416a-ba82-c149ba83043e/edit?page=0_0#)

# Concept and Design

- Component hierarchy
- Backend routes
- Integration and data flow

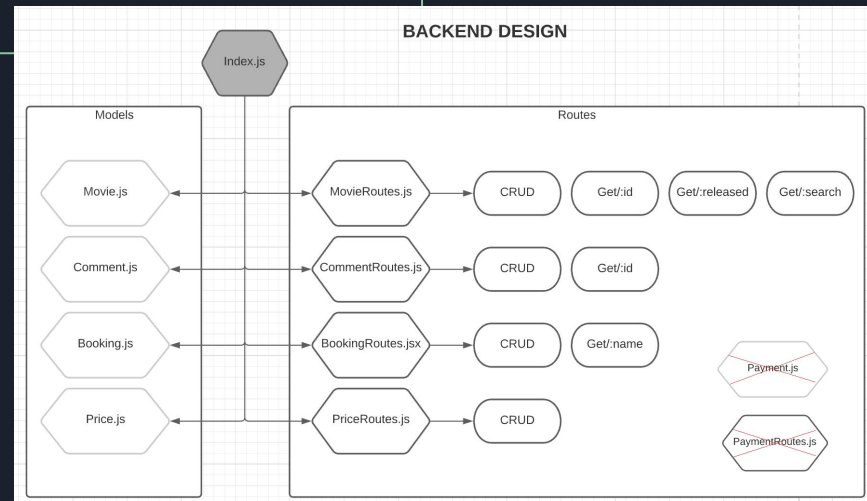
## Frontend



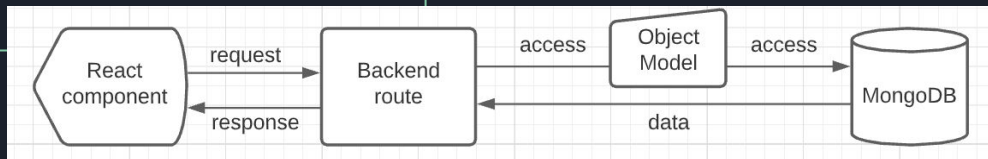
See full component hierarchy in documentation folder or at:

[https://lucid.app/lucidchart/933ca49c-0e56-4406-86df-5cc8c7325a1f/edit?page=0\\_0#](https://lucid.app/lucidchart/933ca49c-0e56-4406-86df-5cc8c7325a1f/edit?page=0_0#)

## Backend



## Integration



# Continuous Integration:

The screenshot displays the GitKraken interface for the 'QA-Cinema-Project'. The left sidebar shows the repository structure with branches like 'dev', 'bug-fix', 'documentation', and 'testing'. The main area shows a commit history with messages such as 'Merge pull request #137 from QA-AKAM/fix-comments-bug', 'CP-67 At: Removed page reload after posting a comment', and 'KD: Moved Documentation folder.'. The right sidebar shows the commit details for 'bb4290' by Kevin, dated 15/7/2021 at 14:17, with a message 'KD: Moved Documentation folder.' and a file 'Documentation/Risk Assessment.docx'.

<https://github.com/QA-AKAM/QACinema-Project/network>

# Testing

Frontend and backend tests performed.

Frontend test - 59.04% Coverage

- Snapshot testing - checked if functions were tested.
- Issues with useStates and useParams.

Backend test - 91.24% Coverage

- All api requests tested.
- CRUD functionality + extra get requests.
- No issues.

All files	58.22	44.9	44.81	59.04
src	0	100	0	0
App.js	0	100	0	0
index.js	0	100	100	0
src/Components/Footer	100	100	100	100
Footer.jsx	100	100	100	100
src/Components/Forum	42.86	41.67	42.31	45.16
ForumComments.jsx	35	30	31.58	37.33
ForumLandingPage.jsx	77.78	100	71.43	77.78
src/Components/Home	100	100	100	100
Home.jsx	100	100	100	100
src/Components/Information	36.59	0	18.75	37.5
Classifications.jsx	10	100	0	10
ContactUs.jsx	37.04	0	11.11	38.46
OpeningTimes.jsx	100	100	100	100
Screens.jsx	100	100	100	100
src/Components/Information/About	100	100	100	100
About.jsx	100	100	100	100
Member.jsx	100	100	100	100
src/Components/Information/Directions	100	100	100	100
Directions.jsx	100	100	100	100
DirectionsCard.jsx	100	100	100	100
Map.jsx	100	100	100	100
src/Components/Information/Nearby	100	100	100	100
Nearby.jsx	100	100	100	100
NearbyVenue.jsx	100	100	100	100
src/Components/Listings	77.78	66.67	66.67	77.39
CurrentMovies.jsx	78.95	100	71.43	78.95
ReleasedMovie.jsx	80.7	58.33	71.43	80
UnreleasedMovies.jsx	68.18	50	50	68.18
UpcomingMovies.jsx	78.95	100	71.43	78.95
src/Components/Navbar	80.95	75	55.56	89.47
Nav.jsx	80.95	75	55.56	89.47
src/Components/TicketBooking	46.22	36.67	24.53	45.76
BookingDetails.jsx	46.15	34.09	20	46.15
PayPal.jsx	53.85	100	20	53.85
Payment.jsx	81.82	58.33	71.43	80.95
Tickets.jsx	0	0	0	0
src/_tests_	0	0	0	0
setupTests.js	0	0	0	0

File	% Stmts	% Branch	% Funcs	% Lines	Uncovered Line #s
All files	91.28	50	95.83	91.24	
backend	92	50	66.67	91.67	
index.js	92	50	66.67	91.67	18,27

# Demonstration







# Sprint Reviews:

## Sprint 1: Implement Core Functionality

What we achieved -

- Planning Docs (ERDs & Hierarchy Diagrams)
- Backend fully implemented
- Main frontend pages
- Majority of functionality involving frontend-backend interaction

What was left out -

- Some interactions were left incomplete due to bugs

## Sprint 2: Quality control & Testing

What we achieved -

- Final frontend pages
- Consistent CSS styling
- Removing redundant code
- Testing
- Documentation & Readme

What was left out -

- Formal code analysis



# Sprint Retrospective:

## **Sprint 1:**

### **What went well -**

- Our initial estimation of the amount of work we could achieve was fairly close to what we actually achieved.

### **What could be improved -**

- We ended up completing tasks that were meant for Sprint 2 while leaving others in Sprint 1 tasks incomplete. Thus, we could stand to follow our sprint planning more closely.

## **Sprint 2:**

### **What went well -**

- We completed our second sprint in a timely manner, partly due to us completing some tasks during Sprint 1.

### **What could be improved -**

- We underestimated the difficulty of testing (reflected by the low story point estimations we'd given them).



## Conclusion:

Development course of the current project was interesting in the light of ensuring seamless communication between client and server, and ensuring an easy to understand user interface but also efficient from the data manipulation perspective. Having approached a CI model and making use of React concepts, provided extensive support in meeting the requirements and the deadlines. In addition, the whole experience revealed areas of personal improvement and potential further development ideas for the QA Cinema web application.

# Q&A

Is there something that you are  
curious about in this project ?

