



Outdoor's Club Online Rental System



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About the Team

- Who are we?
- All 4th year students in Computing Science with 4 members having internship experience
- Split into Teams
 - Backend
 - Front-End

The Problem

- Paper-tracking system for rentals
- Using a credit card for deposits is expensive for members (\$150 if charged)
- Storing large cash deposits on-site
- Rentals tracked using a spreadsheet

Solution

- Bring the Outdoors Club rental processes to the cloud
- Allow members to make reservations from anywhere
- Allow online payments
- Statistics provide insights about the inventory



Screencast



<https://www.youtube.com/watch?v=CIYSKNEYS-Q>

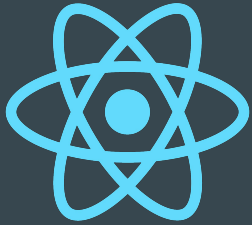
Features

- Statistic generation for gear, to show trends in the rental system
- Complete procedural transition from paper to online system
- Ability to upload new data (e.g. member list) into the system in seconds
- Restriction of the application based on authentication and user permissions
- Smooth, easy to use and intuitive

Value

- Our application will replace the current rental system for the University of Alberta Outdoors Club
- There will be less paper usage
- Increased convenience to reserve gear
- General members of the UAOC can rent gear
- Executives will be able to manage the reservations by the members
- Admins can modify and control the reservation process

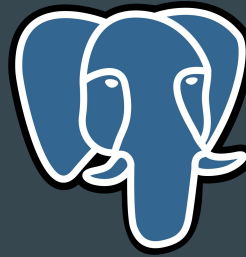
Frameworks and Technologies



React



Reflux



PostgreSQL



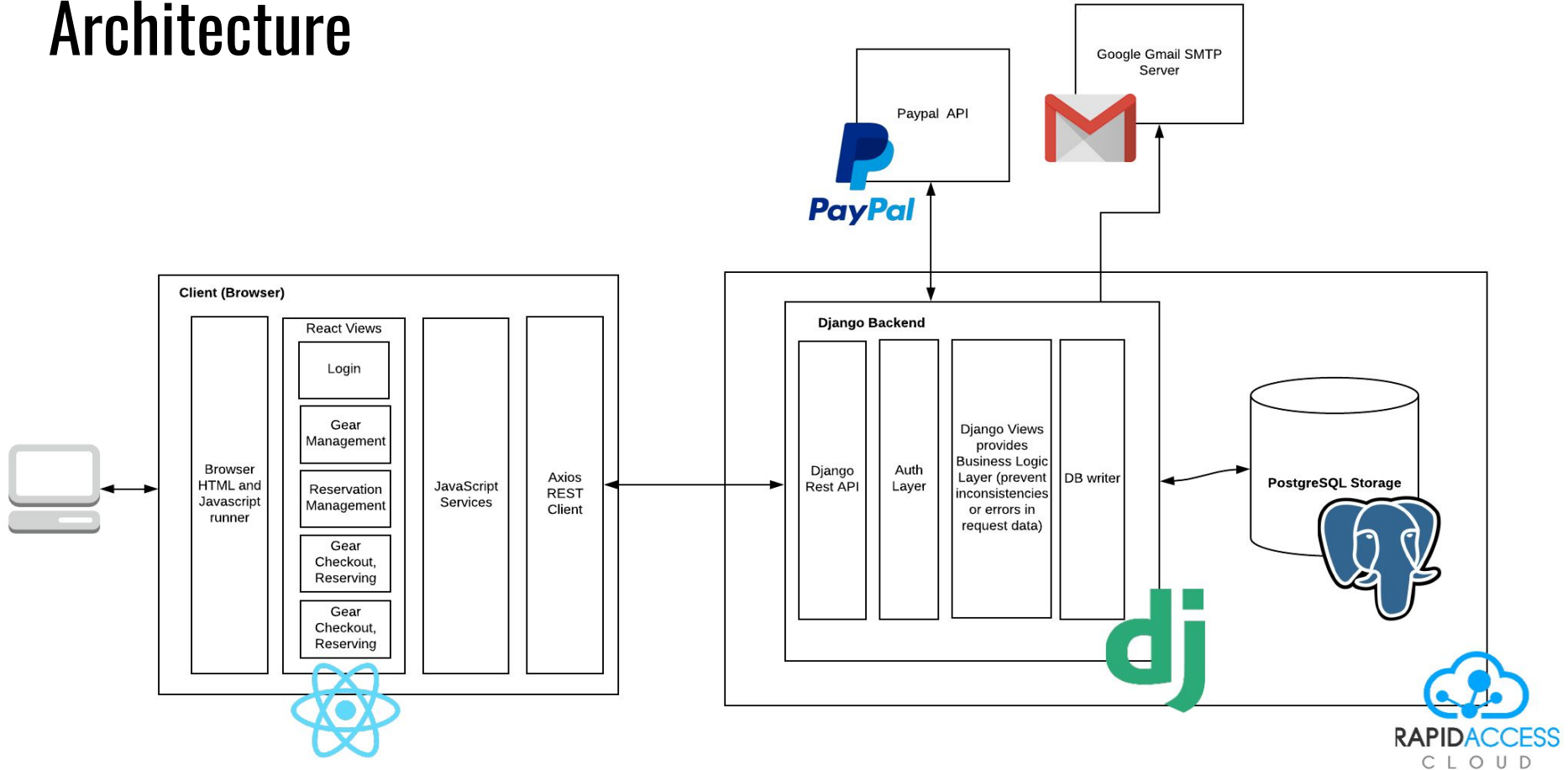
Python



Webpack



Architecture



What Went Well?

- Productive Meetings
- Clients excited about the work done
- Project management



What Helped Us Achieve Our Goals?

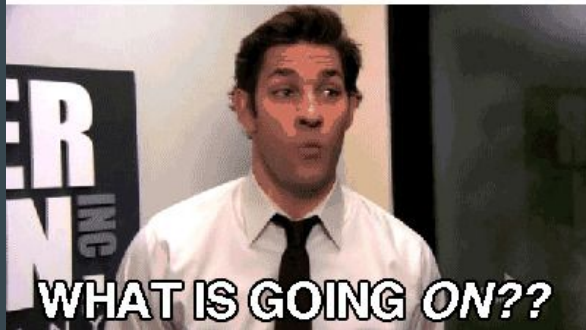
- Sprint Retrospectives helped guide team and correct course
- Consistent use of GitHub Issues to track progress and work to do
- Enforcing code reviews, best practices, testing, and styling
- Effective team leadership



Challenges and Difficulties

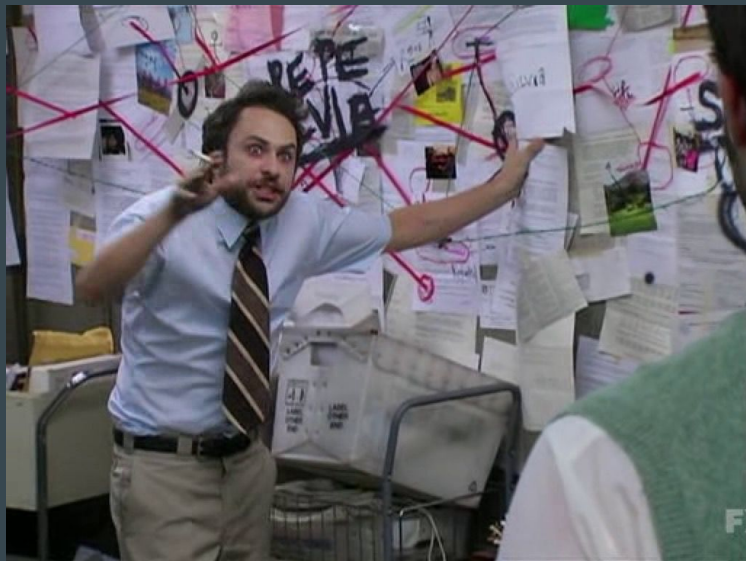
- Coordinating 8+ people to meet up
 - Harder to keep up to date with latest design changes
- Learning new technologies was extra overhead
- Django REST Framework was difficult to use
- Authorization and security was difficult to implement
- Designing a system without accounts for members

When you haven't been reading the group chat and you come back to 500 messages.



Lessons Learned

- Work closely as a team to create a design where everyone is on the same page
- Strong communication within the team and with the clients
- Pair Programming is highly recommended (but hard to make time for)



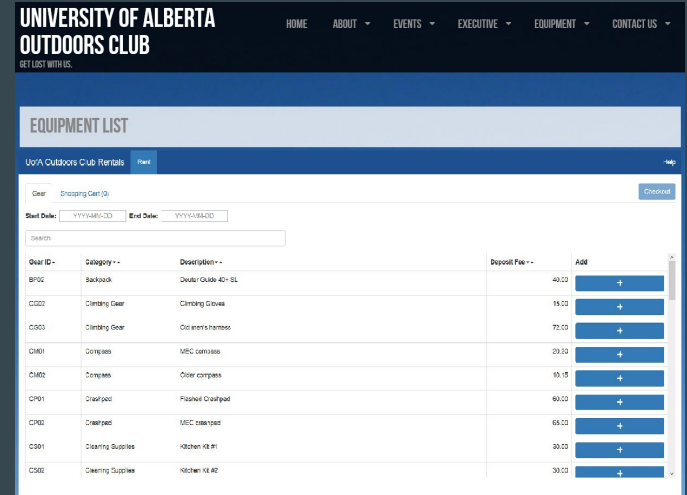
What We Would Do Differently?

- Clarify project requirements as soon as possible
- Strong communication, both amongst the development team and between the team and the clients
- Integrate the backend and frontend early on



If We Had More Time...

- Integration with their website
- More customization of workflow
- Additional statistical dashboards
- Better support for Internet Explorer



The screenshot shows the 'EQUIPMENT LIST' page of the University of Alberta Outdoors Club website. The page has a dark blue header with the club's name and navigation links. Below the header, there's a search bar and a table of equipment items. The table includes columns for Item ID, Category, Description, Deposit Fee, and an Add button. The data is as follows:

Item ID	Category	Description	Deposit Fee	Add
BPGC	Backpack	Deuter Guide 40+ SL	40.00	+
CGG2	Climbing Gear	Climbing Grooves	15.00	+
CSG3	Climbing Gear	Old arena harness	72.00	+
CMH1	Compress	MHC compress	20.00	+
CMH2	Compress	Older compress	10.15	+
CPH1	Camp pad	Flashed Chalkpad	60.00	+
CPH2	Camp pad	MHC chalkpad	68.00	+
CSH1	Cleaning Supplies	Kitchen kit #1	30.00	+
CSH2	Cleaning Supplies	Kitchen kit #2	30.00	+

Questions?

Thank You

References for images

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