Improving User Experience for DataStax suite of products

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Role

As an UX Researcher, conducted usability testing studies to gain insights into user behavior on **DataStax (DS) products** to store, manage and monitor data on the SaaS platform.

Team

Led the UX Research initiative, collaborated with Product Management, Software Engineering, Testing Engineering

Duration

3 months
(June - Aug, 2019)

Tools & Skills

Tools: Google docs/slides/sheets, Eclipse JAVA IDE, NoSQL/SQL, Atlassian JIRA

Skills: Usability testing, Design thinking, Data Analysis, Building future product roadmap, Contextual Inquiry

Note: Few of details are redacted/not shared due to the NDA signed for this work

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Objective

My role in this internship involved understanding the customer environments and their usage of the software to critically better serve the customers. Some of the questions, I answered during internship include: **How do customers employ the DS clusters? Which features of DS are most used by users? To what extent do users find DS monitoring tool helpful? Are there specific features in the software that requires modification?**

Target users: Software engineers/developers; Database administrators

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Process

- After receiving a brief, I discussed ideas with my hiring manager and team about how to understand user behavior while conducting remote usability testing
- Taking advantage of my technical background in **SQL and JAVA,** I got myself familiarized with the DataStax products, working on **virtual machines and installing relevant libraries and drivers**
- To get an early start, I was tasked with helping the team with video-coding data collected at a DataStax Accelerate Developer conference for a suite of DataStax products
- I also got myself acquainted with a suite of DataStax products: Appstax, DSE JAVA Drivers, Insights, Constellation (Cassandra as a service), and DataStax Desktop

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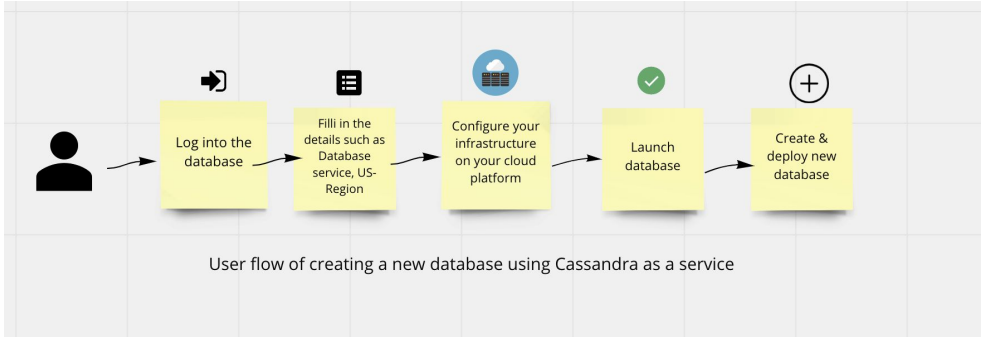
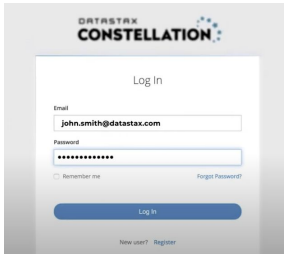
Process

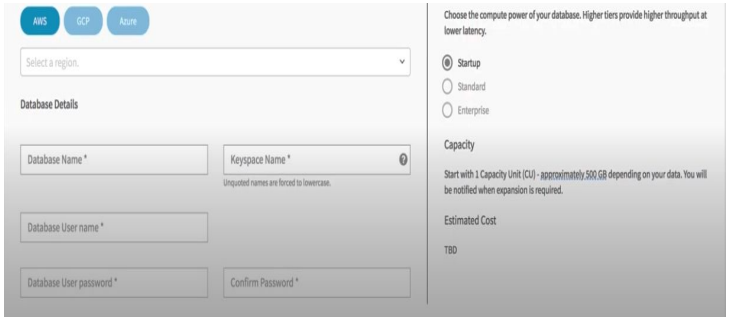
- Once I had created the study, I **recruited participants internally** within new hires or employees who weren't familiar with the software
- During the process I created **pre-tasks, task scenarios, post-tasks questionnaires** using design principles: collaborating with product managers, designers, and software engineers
- I conducted **independently/collaborated in carrying out over 40+ usability testing studies** for the DataStax products
- The results from these studies were analyzed and categorized based on **low/medium/high priority issues**

Sample task: Creating a new database

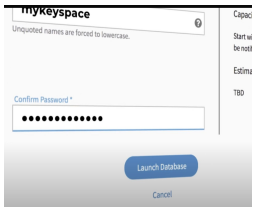




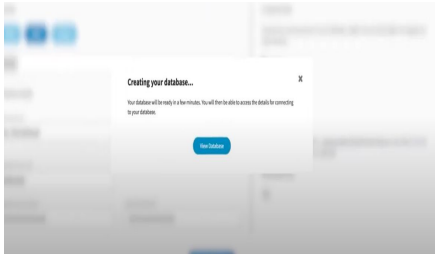
Log in



Fill in database details



Launch the database

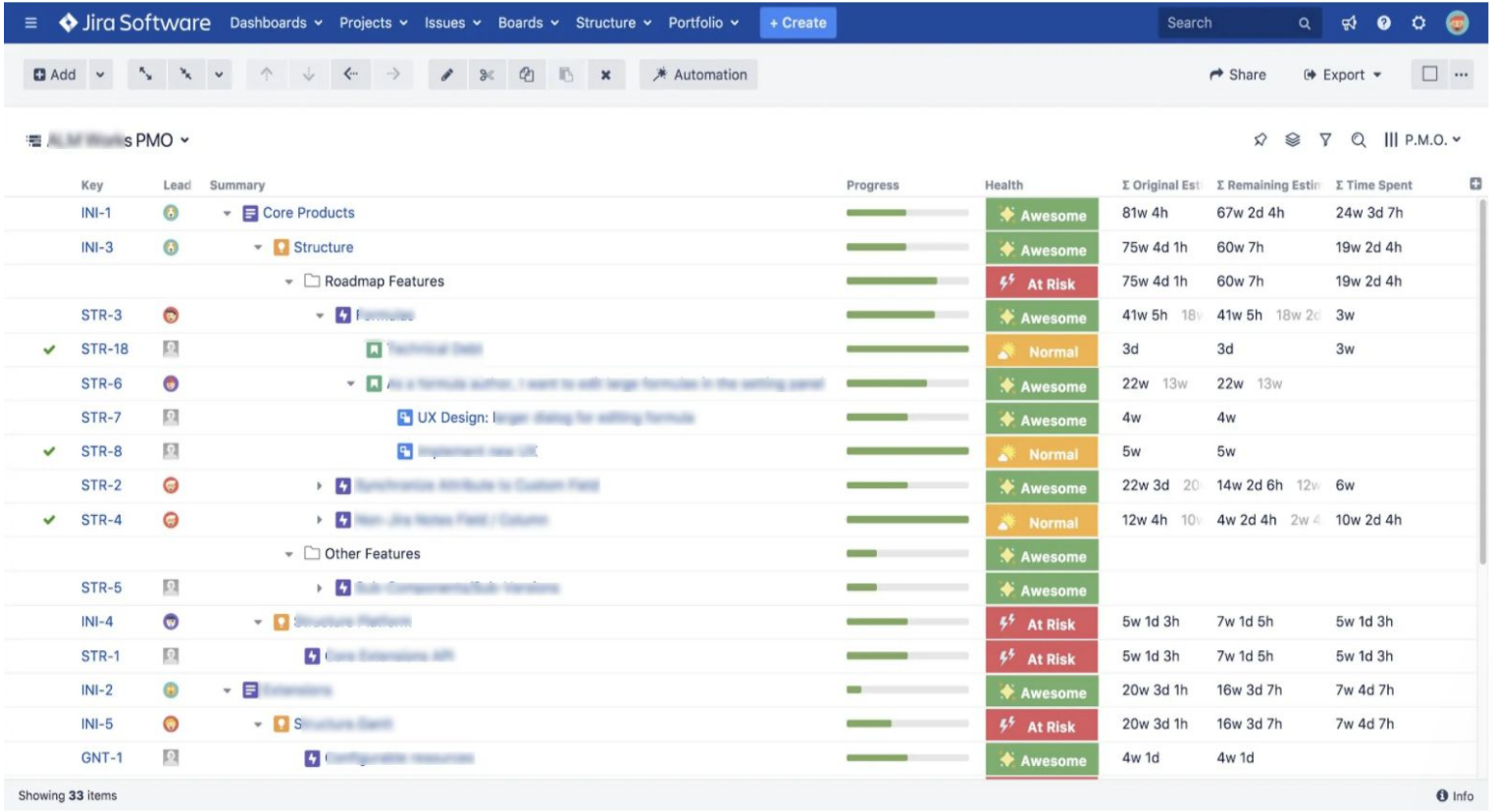


Create database

Analysis

A	B	C	D	E	F	G	H	I	J	K	L	M
Cassandra-as-a-Service												
User	User quotes (UQ)	Timestamp	UQ-Bugs	Timestamp	UQ-Inconsistent c	Timestamp	UQ- Negative Tho	Timestamp	UQ- Positive Thou	Timestamp	Suggestions	Timestamp
User 1												
User 2												
User 3												
User 4												

Tracking issues in JIRA



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Process

- Later on the basis of the results got from usability sessions, reported issues **mentioned as tickets on JIRA**

- I participated in the **weekly triage meetings to resolve the issues/modifications** of the product.

- After conducting the usability testing studies, I **analyzed the results from the studies and wrote a detailed report** which was published internally.

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Findings

- On the basis of the research conducted by me, the answers to the following product features were answered

For each cluster (Cluster ID, Operating System, Installation Type)

- DSE Version used
- For each datacenter
    - **Number of nodes**
    - **Workload type: analytics, search**
    - **Graph enabled**
    - **Is it running on cloud, which region, instance type**
- Variability in operation size
- Read/Write/Update/Delete Ratio
- Replication Settings
    - **No. of destinations per cluster**
    - **How many used submitting Spark jobs**

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Challenges

- My internship was planned and executed well by my hiring manager, but there was a bit of a learning curve while understanding and working with DataStax products.

- Conducting, analyzing, and writing reports simultaneously was quite challenging.

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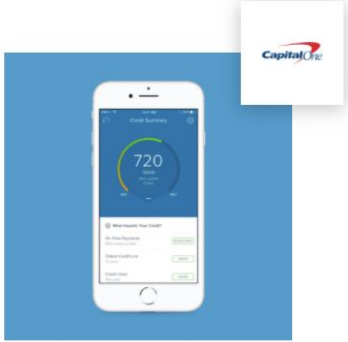
Outcomes

The research provided a great deal of insight into not only how users interact with the DS products but also answered specific product features that needs work

- The key business outcomes answered in this internship include **delivering better customer engagement, create targeted marketing campaigns** and **deliver webinars** to drive early product adoptions
- Understand **customer deployments and key features** usage by customers

Success stories

The Largest Data-Driven Enterprises Use DataStax to Grow Their Business



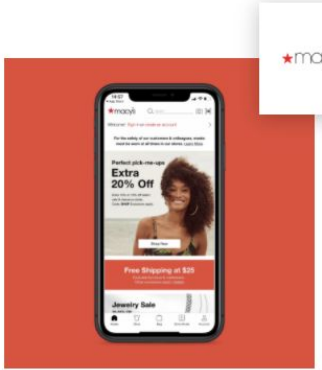
CAPITAL ONE

How Capital One Handles 21k Transactions per Second with DSE

Most people know about Capital One's credit card dominance and "What's in Your Wallet?" commercials, but not many people know how the banking and financial services industry (BFSI) powerhouse managed to pull off one of the biggest enterprise-level digital transformations of the 21st century.

READ THE STORY WATCH THE VIDEO

> DataStax Enterprise Search is very versatile in nature and provides many options to query the data, including ranged queries, regular expression based search, non-equality based search and faceted queries - which are all tempting to use.
>
> **Javed Roshan,**
> Director of Data Services at CapitalOne



MACY'S

Macy's Reduces Catalog Refresh Time by 6X

Facing a heavy increase in traffic for its ecommerce site and omnichannel catalog, Macy's needed something far more powerful and flexible than the relational database it was using. DSE allows them to handle 10x growth of their catalog without issue.

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Summary

Given the compressed timeline, I learnt to manage time efficiently and also work collaboratively in a team setting. Moreover, **working with stakeholders and understanding business benefits** from the UX research studies was also part of my learning process. During the final internship presentations, the **usability findings were well appreciated** and were **incorporated in making product decisions**.