Saurav Kothari

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Udaan Product Engineer, May 2019 - Aug 2020	Bengaluru

As a Product Engineer, my responsibilities involved taking ownership of the business goals of the problem area, to decide what to build and execution.

I owned First Party Procurement as a problem area. The core issue we were trying to solve was that of reconciliation. We were purchasing and selling a lot of inventory but all of the accounting was done outside the system. The larger goal was to systemize the procurement process so that every step could be documented, instrumented and improved with insights. This would also help identify leaks and gaps in the financial process and prevent any potential for abuse.

The architecture would include a Product Master, a Vendor Master, the layer to raise Purchase Orders for products to Vendors, the layer to match the goods received at the Warehouse against open POs and subsequently trigger the relevant financial workflow. I started a sole engineer on the problem which later expanded to 12 engineers working on various facets of the problem.

Technical Overview

The project was written using Kotlin and Dropwizard. The frontend was built on ReactJS. All communication across services was done via RESTful Clients. We were hosted on Azure and leveraged a lot of azure products (AzureSQL, Cosmos DB, Cloud Storage)

1. Product Master

   - Designed and developed a product master to maintain a central list of unique products that can be purchased or sold
   - Each Product would corresspond to a unique physical SKU and would account for various packaging units

2. Vendor Master

   - Vendor Master to store vendor information and map to relevant locations
   - Map purchase orders to vendor + location and only allow inwards of matching goods
   - Allow financial documents (po, credit notes) to be generated and sent directly to vendors via email

3. Purchase Order & Matching

   - PO System to allow creation of POs for Product + Vendor + Location
   - Multiple levels of approval before PO can be sent to Vendor
   - Match received goods to open POs and keep track of deviations
   - Allow real time action on deviations - allow excess or reject and return

4. Financial Reconciliation

   - Tap into finance workflows to allow for accurate vendor payments
   - Track and record deviations in vendor ledgers

honestbee Software Engineer 2, July 2018 - May 2019	Bengaluru

1. Hive & Logistics

   - Designed and developed a new architecture based on Domain Driven Design (DDD) for saving and presenting products data to users as part of migrating from a store based experience to a storeless experience. This included building a microservice that would communicate with multiple other services to process and present requested data to consumers.
   - Designed and developed a Dynamic Salary System for honestbee deliverers (referred to as Delivery bees). The system takes into account various parameters for payout with support for peak periods and backdated changes.

BrowserStack Inc. Software Developer, May 2015 - July 2018	Mumbai

1. Automate Team

- Implemented a tier based segregation for the various device types offered by BrowserStack to allow custom limits on how many can be used at the same time per device per customer. This allowed us to increase the availability of our devices with minimal impact to genuine usage.
- Designed and developed a diagnosis utility to notify users of errors in their tests based on data from multiple sources which helped reduce the load on the Tech Support team
- Designed and developed a rule engine to validate and map user sent capabilities with both a back-end validator and front-end for users to explore the full breadth of customizations for their test suites
- Designed and developed a Redis based caching solution ahead of our primary rails server to prevent spamming from faulty user scripts
- Used Redis to provide HA of multiple services and async processing which allows us to provide better reliability to our users
- Developed custom client code on Windows/Android/iOS platforms to provide browser console logs, network logs and other native browser features that allow users to debug their tests with ease
- Designed and developed a daily summary service for users that would send them a daily digest of their tests on BrowserStack based on their time zone which increased visits to our dashboard by 20% and allowed customers to get notified of potential problems faster
- Was responsible for optimizing and upgrading our REST API to allow users to modify and batch delete their tests with ease
- Was responsible for maintaining real-time dashboard of customer tests with options to search and filter
- Was responsible for maintaining a cross-region uploader service that collects and uploads session logs that can be scattered across multiple machines in multiple regions to S3

2. Rails Team

- Wrote various admin endpoints to manage user subscriptions for the Sales team to allow them to become more self-sufficient and reduce strain on engineering resources
- Wrote an internal newsletter tool for the Marketing team to send targeted newsletters with time zone support to users
- Maintained payment and order processing across various iterations of pricing plans
- A/B Testing using external and in-house frameworks
- Was responsible for the redesign of the browserstack.com website from scratch with the focus on page performance and responsiveness
- Was responsible for the reskin and redesign of Product Dashboard(s)
- Analytics and tracking using internal and external data tracking services

Amazon India Pvt. Ltd. Software Developer Intern, Summer 2014	Bengaluru

1. FC Systems

- Automated the launch of new FC (Fulfillment Centre) for various services and tools pertaining to my team (Shipment Data Platform). Manual launching of new FC's was time consuming and prone to errors. Automation reduces human intervention and optimizes time.

Qualifications			
B.Tech in Computer Science and Engineering	IIT (ISM) Dhanbad	2015	7.5

Technicals	
Languages	Ruby, Javascript, Kotlin, Go*
Frameworks	Ruby on Rails, Dropwizard, ReactJS
Databases	Redis, MySQL, CosmosDb, BigQuery

* elementary proficiency