Lean Idea Cards using Tulip

Aakarsh Nagendra Rai, Benjamin Wu, Raffaella Laxalde, Anisha Prabhu, Jinhan Jeremy Kwon, Yash Dalal, Daniel Tian Enzo Sant'Anna Amaral, Prithvi Rangaswami, Siddharth Perabathini

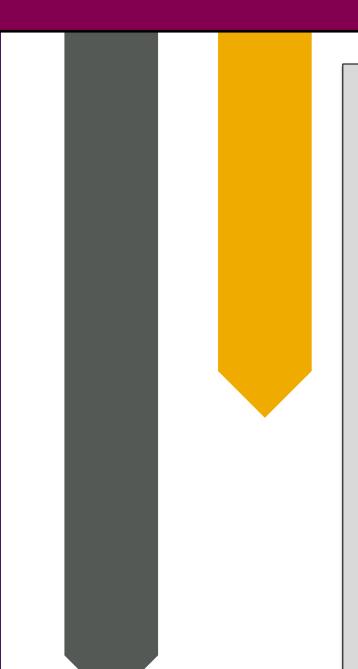


INTRODUCTION

- AstraZeneca (AZ) is a global pharmaceutical company focusing on creating innovative medicines used by patients all around the world
- The Lean Digital team at AZ's Mount Vernon location has a program called the LEAN Card Program, which allows employees to submit ideas regarding work efficiency
- They wanted a place where they could see analytics regarding idea process time, number of ideas submitted, and other metrics all in one place
- The LEAN card program allows AZ to improve work efficiency and develop a better work environment for employees to be as productive as possible

METHODOLOGY

- Tulip is an advanced information visualization framework designed specifically for analyzing and visualizing relational data
- Tulip can work with very large datasets and different databases
- The 5 key tools in Tulip are drag and drop interface, toolbar, context plane, step and record pane and the tables
- Implementing Tulip as the platform for managing lean card ideas offers AstraZeneca
- a comprehensive solution to limitations encountered with SharePoint
- its user-friendly interface ensures quick adoption and increased productivity among employees, without the need for extensive training
- Main benefits of Tulip are:
- No-code
- Cloud-Native
- Edge Connectivity
- Enterprise-ready



PROGRESS

Auto-generated email notifications

• Implement in-app triggers which automatically email the creator of an idea when the status of the Lean Card is updated in the database.

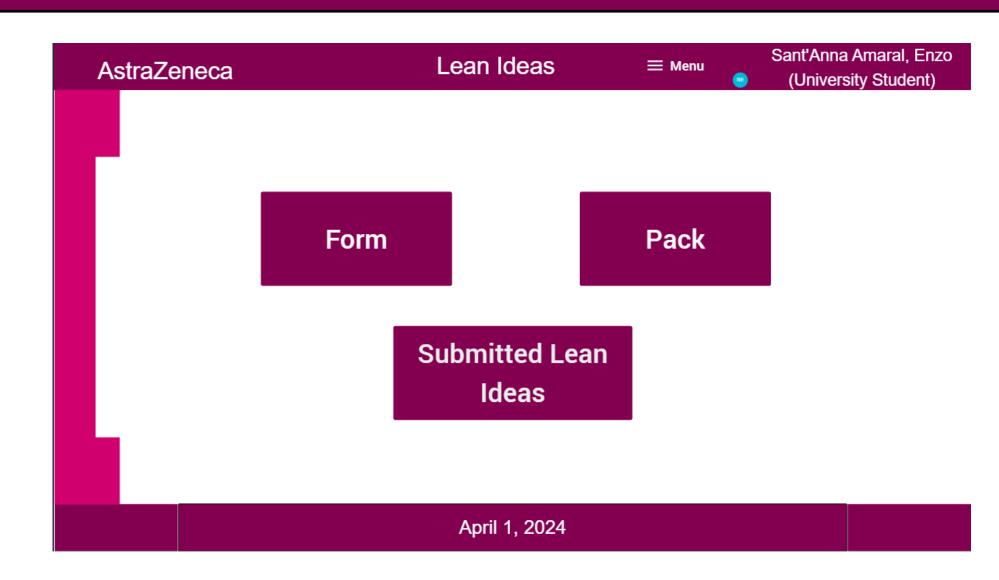
Implemented 10-day review requirement

- Develop app trigger which will initialize a counter for mandatory review after 10 business days when a Lean Card idea is submitted.
- Implement trigger which sends a notification to the reviewer if a Lean Card goes past the review requirement deadline without being reviewed.

Created database to hold values

- Developed a table to hold values whenever a form is submitted
- Table values are accessed for sending emails, getting user information, submitting forms, etc.

| AstraZeneca | Form | ≡ Menu Sant'Anna Amaral, Enzo (University Student) |
|--------------------|----------------------|--|
| Lean Idea Title | | |
| IDEA Creator | Work Area | Date Submitted |
| Select an option - | | April 1, 2024 |
| Idea Details | | |
| | | |
| Add Attachment | | |
| Target Review Date | Reviewed By / L.P.C. | Idea Status |
| Apr-15-2024 | Select an option | • In review |
| | | |
| ← Previous | April 1, 2024 | Next → |



PLANS FOR THE FUTURE

Finalize Search/Filter functionality

- Redefine areas for filtering
- Implement search functionality within app by Idea Number, Title, Creator, Idea
 Details, for all departments
- Re-structure current application so it is responsive to user input to update table query results in-app via personalized triggers

Develop Analytics Dashboard

- Analyze current analytics functionality implemented for Lean Cards via Power Bl and design a Tulip app which replicates current mechanisms using Tulip functionalities.
- Develop and implement a dashboard to display analytics and metrics
- Design and implement interactive graphics to display visual analytics.

Determine and apply design theme to maintain aesthetic cohesiveness in solution

CONCLUSION

- The final Tulip app contains forms that allow employees to submit LEAN cards with all the crucial fields and information
- Idea creators and reviewers receive emails when ideas are submitted as well as when the status of an idea changes
- The application contains different forms for different departments within AZ, which allows employees to fill in the necessary information for their fields

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REFERENCES

- Manufacturing App Platform | Home. (n.d.). Tulip. https://tulip.co/
- AstraZeneca. (2022, May 10). AstraZeneca. Astrazeneca.com; www.astrazeneca.com.
- The Data Mine. (n.d.). Datamine.purdue.edu. Retrieved March 4, 2024, from https://datamine.purdue.edu/

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