Allegheny Conference on Community Development

Executive Summary

Community Partner
Ellen Gaus
Student Consulting Team
Aditya Chanana
Shane Dasbach
Jessica Li

Background

The Allegheny Conference on Community Development (ACCD) is a nonprofit located in Pittsburgh, Pennsylvania. Their mission is to analyze competitive issues, advocate for improvements, and market the region globally to encourage business investments that create jobs, and attract talented people to fill them. They are able to achieve these goals in support and on the behalf of ACCD's three hundred Regional Investor Council members who each own businesses within the ten-county greater-Pittsburgh area.

Project Description

Project Opportunity

The ACCD Market Research Team had an issue with their efficiency in creating their weekly standard reports. Their biggest concern was the amount of time it takes to query and download data from their multiple data sources: US Bureau of Labour Statistics (BLS), US Bureau of Economic Analysis, Census, and more. They noted that all these data sources have websites with older and complicated user interfaces which makes utilization slow and tedious. Our project opportunity was to develop a custom application that would be faster and more usable in querying data from the aforementioned data sources.

Project Vision

Our project vision is to design, build, and deliver a custom web application that efficiently enables our community partner to gather and aggregate critical market research data. Our approach focused on integrating with the BLS data source as it is the most commonly used resource at ACCD.

Throughout the process, we collaborated with our community partner to form an understanding of her use of the various BLS data series and subcategories and identified areas for improvement. We also created an aesthetic, clean, and usable interface design so our community partner can more efficiently perform new queries. In the end, our community partner is also able to view and download the data from the application.

Our vision also addressed two main concerns. First, we strove to decrease the time required by our community partner to collect information by 30 percent. Second, our data download feature reduced the need to clean and organize the data before downloading directly from the BLS website.

Project Outcomes

People: We learned about the ACCD's workflow and administration of tasks within the company, communicated with the market research team who are the users and clients of the project, and contacted the web developer of the ACCD for handoff.

Process: We held regular weekly or bi-weekly meetings with our client from ACCD, conversed in group channels for daily standups, implemented Trello for task documentation and tracking, and employed agile methodology to consistently deliver weekly milestones.

Technology: We developed and deployed a basic application for BLS querying. It is custom to the client's needs: specifying the data series needed, filters for query calculations, login functions to coordinate and secure API keys, and curated output from the data source query. Filters and the user interface were changed based on regular feedback. Multiple wireframes were user-tested with think-aloud and task-based methods.

Project Deliverables

- The finalized Ruby on Rails BLS Query Application - Git Repository + Local and Online
- Heroku Deployment website for ease of use and regular interactivity
- Documentation containing notes of past meetings with further recommendations on new tasks and references

Recommendations

As there are many sources that the market research team utilizes for their weekly and regular standard reports, one possible next step is to implement another data source for the organization. Also, given that most of the development of the project was in the functionality of the main components of the process of querying from the BLS, there are also other opportunities to add more in-depth features to the application - such as JavaScript filtering of the user interface to only show available BLS Series IDs filter inputs that can be used.

Student Consulting Team

Aditya Chanana served as the head software engineer and quality assurance manager. He is a junior majoring in Information Systems with an additional major in Computer Science. He will be interning at Nutanix Inc. this summer as a software engineer.

Shane Dasbach served as a main software engineer and client transition manager. He is a junior majoring in Information Systems and minoring in Computer Science. He will be interning at Capital One as a Software Engineer this summer.

Jessica Li served as the project manager, designer, client relational manager, client transition manager, and software engineer. She is a junior majoring in Information Systems with a minor Human-Computer Interaction. She will be interning at Microsoft as a Program Manager this summer.