Strategy > Model > Process > System

What?

Create a Business Intelligence system for the Wasatch Beekeepers Association.

Why?

Data is used from all around the world to help protect and maintain bees. These bees make honey which in turn helps us. Understanding this data and having it provides a pivotal role in how beekeepers can maintain bee populations and find the best locations for honey production.

How?

Key Business Intelligence Bee Data

- A BI dashboard that can give the most pertinent information on bees.
- Excel information and data sheets.

Data

- Create a small data page where information can be kept.
- Integrate data from hive sensors, beekeeper reports, and weather data and honey production in separate areas.
- Load new data found frequently into this location.

Tools

- Microsoft Power BI for the dashboard
- Microsoft Office 365 applications
- SQL Server as the backend database
- SQL Server Management Studio for backend and middle tier (business logic) developm ent
- GitHub for code repository

SMPS Research Q and A:

Q1: Existing systems: Do we already have one?

A1: No, not entirely. Several organizations across the US and Utah have created sets of data on bees and their colonies, honey production and other relevant statistics. While we don't have an existing system this will provide a good start.

Q2: Feasibility: Any known data or functionality gaps?

A2:

Data Gaps – In terms of gaps, there is some information that might not have been collected but might also not be pertinent to the situation at hand. For instance, sensory data of hives might not have been collected, but it might also not bee needed in this situation.

Bee keeping information is done frequently but not too frequently so we might have some gap in current 2024 data.

Functionality gaps – There could be a few, we won't have real time updates on all data across the globe, but again this might not be necessary for our project. We will have access to data tools however, which will provide good functionality for most things.

Q3: Sustainability: Ongoing resource requirements? Cycle?

A3:

Hardware

- Not much is needed, I have a computer which houses the BI database and it will be uploaded to the cloud.

People

- I will be the one working on this project solo.

Cycle

- New data added throughout the next few months will be checked and added to the data cycle if needed. New data on bees is done yearly or less so brand-new information on the subject

Q4: Stability: What might threaten the existence of things once they are built?

A4: The BI will be backed up regularly and have local and cloud storage. And data from the beekeepers association has always been available so I don't think we will have issues regarding "things" once they have been built.

Q5: Vendor options: Are any being considered?

A5: For most of the data tracking and display of such data. Microsoft Excel and BI are going to be used. Other spreadsheets of data might also be kept but most will be done using Excel, BI and SQL if necessary.

Q6: Horizontal expansion requirements: Any new FTE, hardware, or software resources?

A6: None, all software, as far as I am aware, has been installed and created on the systems.

Q7: Vertical dependencies: Anyone else involved? Especially someone higher up?

A7: None, this will be a solo project, however, I do have my father, who is a beekeeper who knows more than I do and he will be helping out. Along with that, I will be getting data from many different areas of the web and so many have helped in this by proxy.

Q8: Company growth rate scenarios

A8: Nothing should impact this, unless a huge influx of data surrounding bees happens, the data should remain fairly consistent and so no new growth factors will be happening as far as this is concerned.