
AgBizClimate Midterm Progress Report

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Presentation Overview

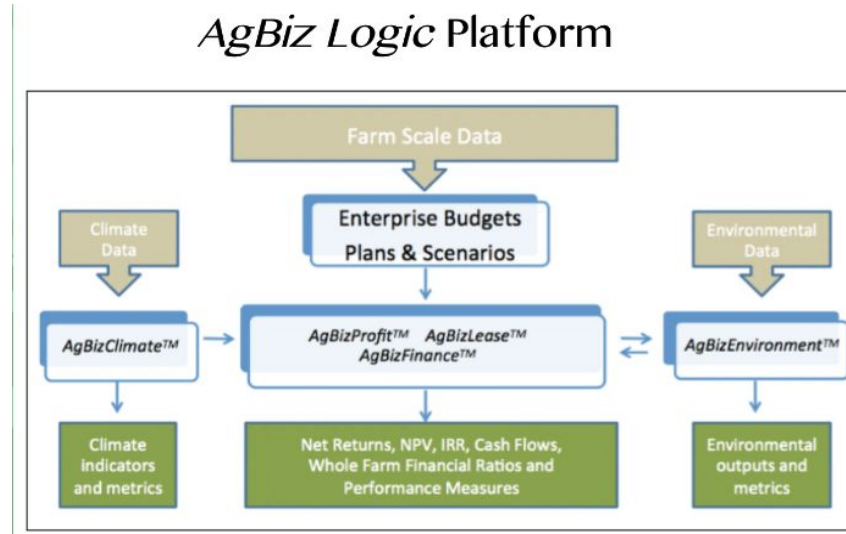
- 1) Project Introduction
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- 5) Demo
- 6) Rocket Demonstration
- 7) Backend API
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Project Introduction

- What is AgBizLogic?
 - Suite of decision web tools
 - Current tools Include: AgBizProfit, AgBizLease, AgBizFinance, AgBizEnvironment
- Primary Goal: Create AgBizClimate
- Functionality: AgBizClimate aims to give farmers and ranchers tools to help mitigate the effects of Climate on crops and livestock.

Scope

- Our Project Is part of the Greater AgBiz logic Platform.
- We are specifically adding functionality to the AgBizClimate Module.



Functionality Pipeline

- Users log in
- Users selects budget
- Users selects region
- User Selects scenario type
- Users get visualized climate data for region
- Users adjust yields based on results
- Users review their budgets
- Note: Process is iterative

Summary of Progress

- Resolved work items.
- Items in progress.
- ToDo's

Resolved Work Items

- Verified that bug in netcdf4 is in the C layer.
- Creating a fail safe for the application if the climate data source is under maintenance.
- Found solution to data problems.
 - Solved how to get files on native system into container.
 - Wrote script to get the data.
- Re-implemented API using NETCDF4 on local data.
 - Created fail safes for if the file doesn't exist.
- Document Updates.
 - Poster

What's Left

- Document Updates
 - Requirements Document.
 - Design Document.
 - Technical Review.
- Bug Fixes
 - Update Front End to handle backend changes.
 - Fix any errors found during testing.
- QA and Testing
 - Backend Testing Unit Tests.
 - Update Frontend Unit tests.
 - Manual testing/Ad Hoc testing.

Stretch Goals

- Create PinPoint tool for selecting location.
- Add more models to the plot.
- Create plot so we can show 90% confidence interval.

Overview of Major Blockers

- Errors in NETCDF4 over the network.
- Making changes to Architecture to work around netcdf issues.
- Figuring out how to use rocket.

Demo

- Demonstration of The Application.
 - Overview of the app
 - Demo with dynamic data and multiple budgets.
- Discussion of the API and endpoint.
 - Discussion of the API.
 - Discussion of the end point.
- Rocket demo and discussion
 - Mount Bind.
 - Devops workflow.