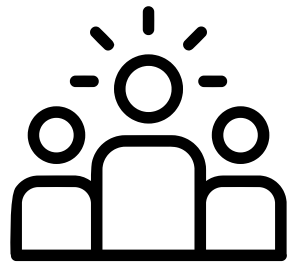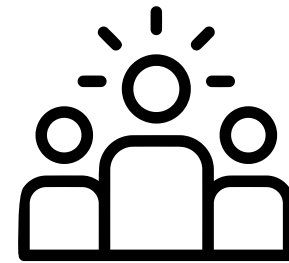# SPRINT 6

BUDS

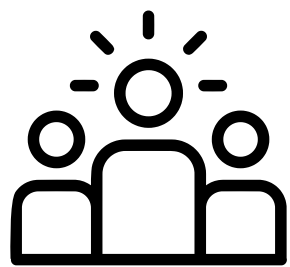Workflow Management System

TEAM ROLES
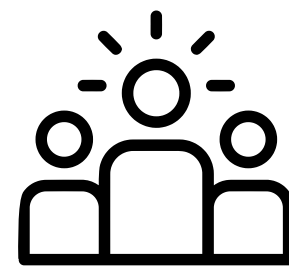
SOPHIE

Scrum Master
Frontend / Backend

NOAH BAKER

Frontend Development

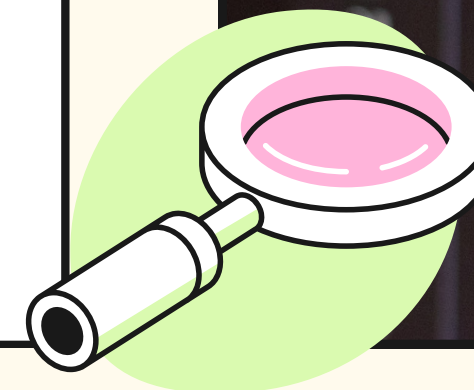**NOAH MONROE**

Backend Development

GAVIN

Backend Development

PROJECT OVERVIEW

Our objective with this project was to design a Workflow Management System to manage the incoming and outgoing products of each department and generate reports accordingly.

Primary Product Functionality:

- *Registration* - provide users with unique login information with appropriate role functionality
- *Stock Management* - the flow of Raw Materials
- *Product Management* - creating new products from Raw Materials
- *Quality Analysis* - monitoring the quality of all manufactured products
- *Delivery Management* - identifying quality products and sending products to sales
- *Report Generation* - allow data/ tables to be exported from application for external use

AGILE METHODOLOGY

What is Scrum?
- Scrum is an agile process that allows us to focus on delivering the highest business value in the shortest time

Parts of Scrum:
- The Product Owner negotiates priorities with the team
- The Scrum Master helps facilitate and focuses on the process itself
- Team members self-organize to determine the best way to deliver the highest priority features

How have we implemented Scrum?
- We continually test our software with real inputs, called *dynamic* testing, and deliver working demos every sprint
- Dynamic testing helps us "fail" quickly so we know what will work for us as a team and what will not
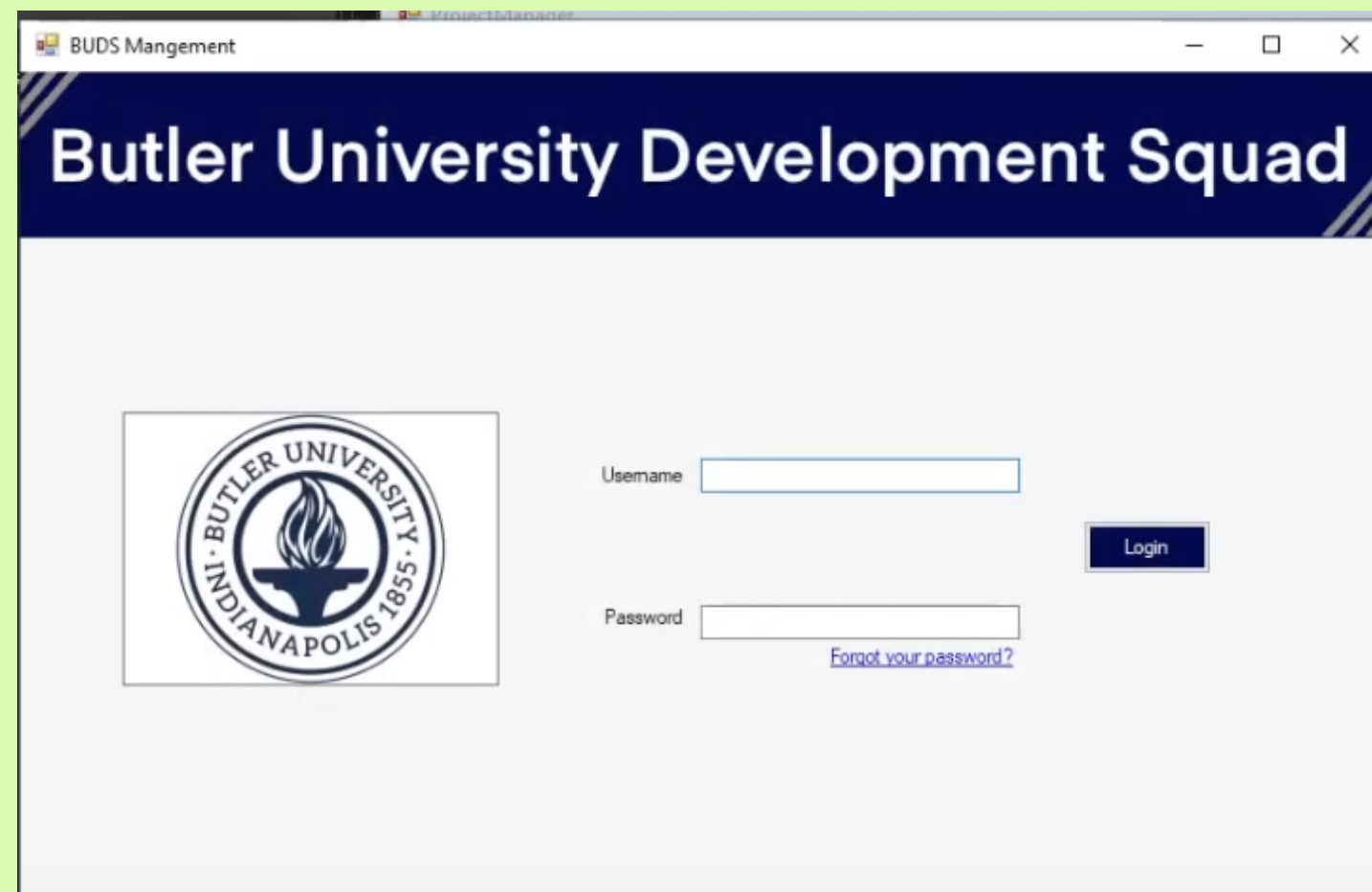
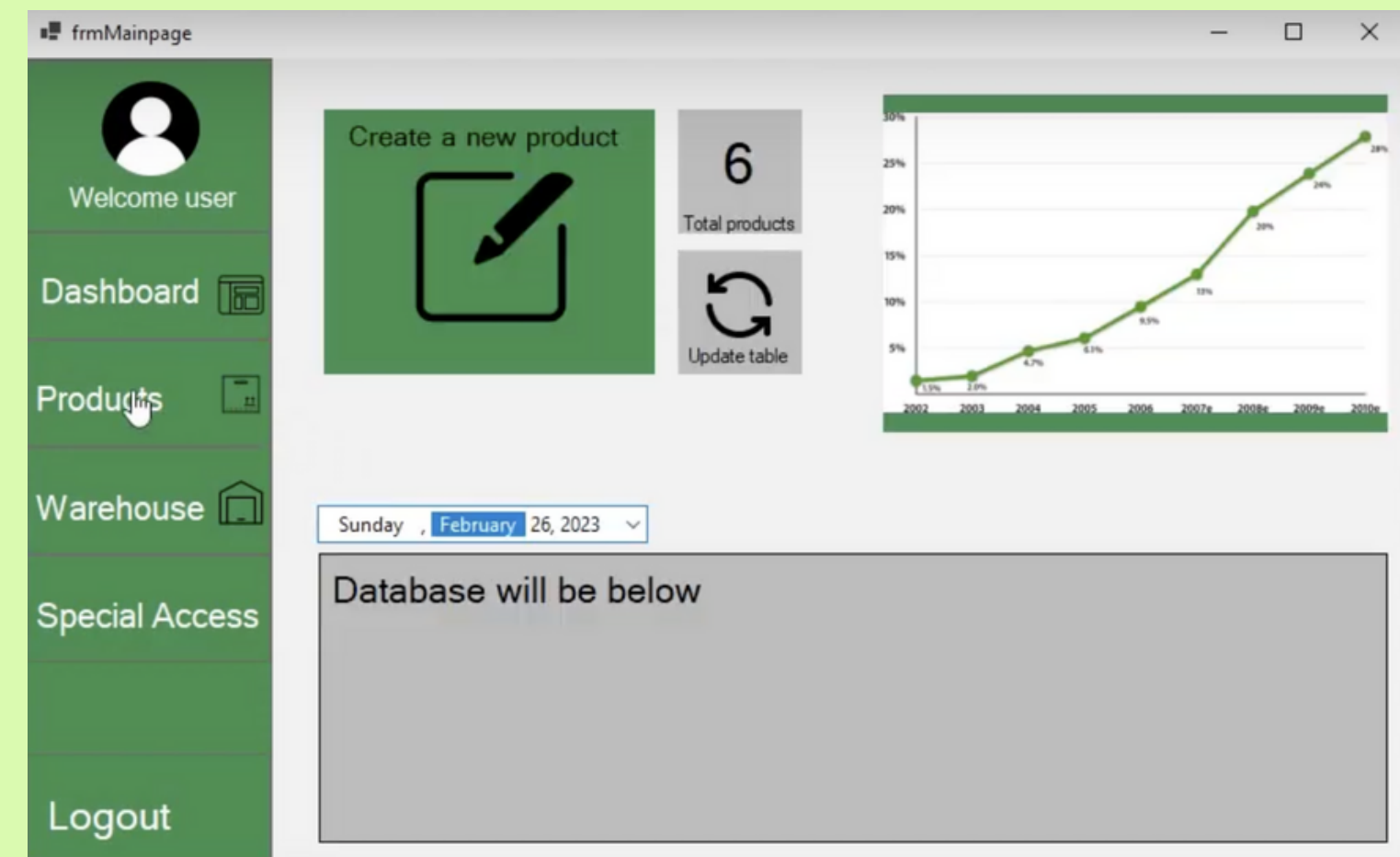# PROJECT GROWTH

Sprint 1 and Sprint 2 -

Prioritized Goals:
- Create GUI
- Set up and connect the Backend database
- Began implementing login functionality through special access

Sprint 3 -

Prioritized Goals:
- Create Raw Material and Product tables
- Establish different roles and what can be viewed/ edited
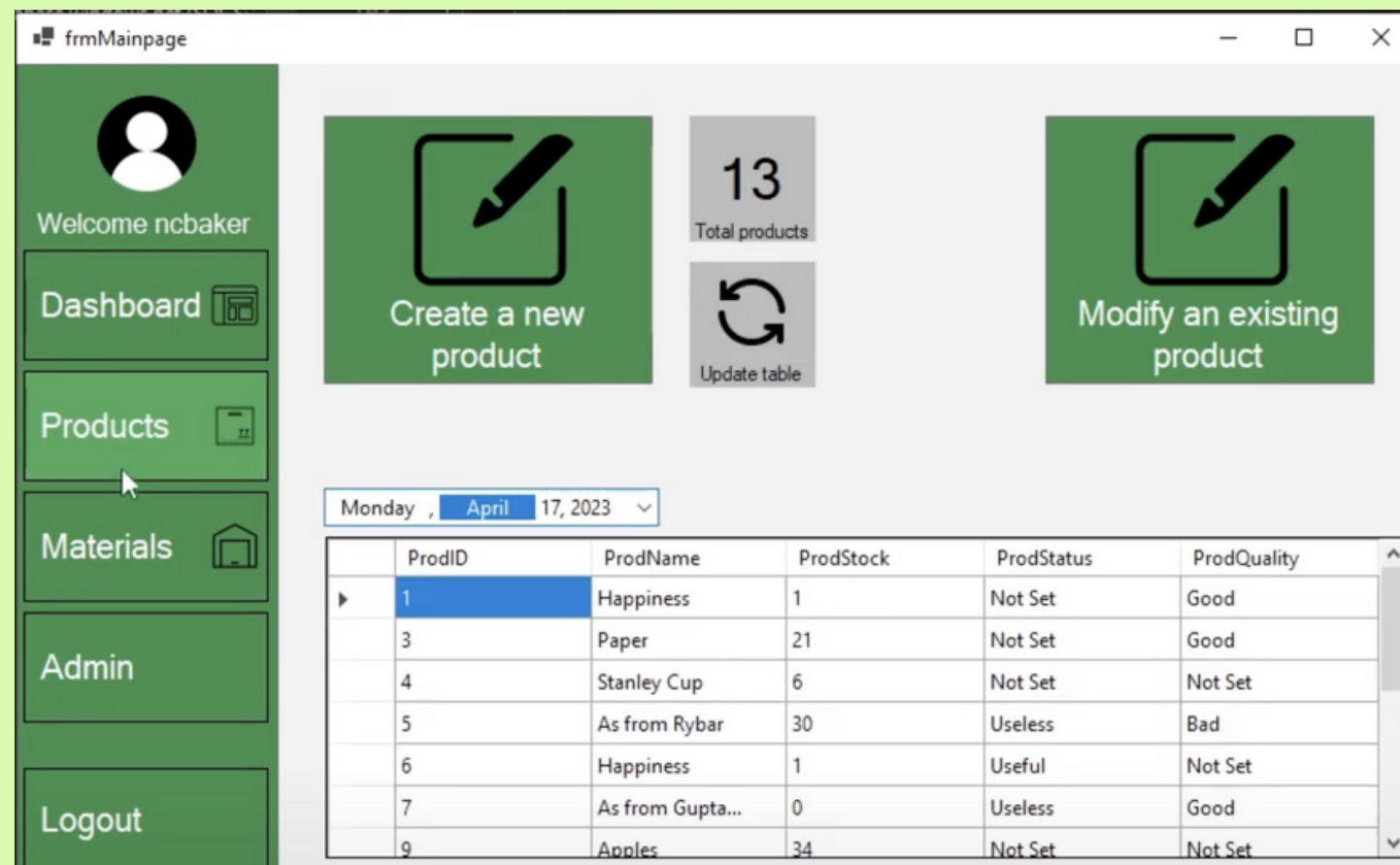- Got into Stock Management and Product Management (adding)

PROJECT GROWTH

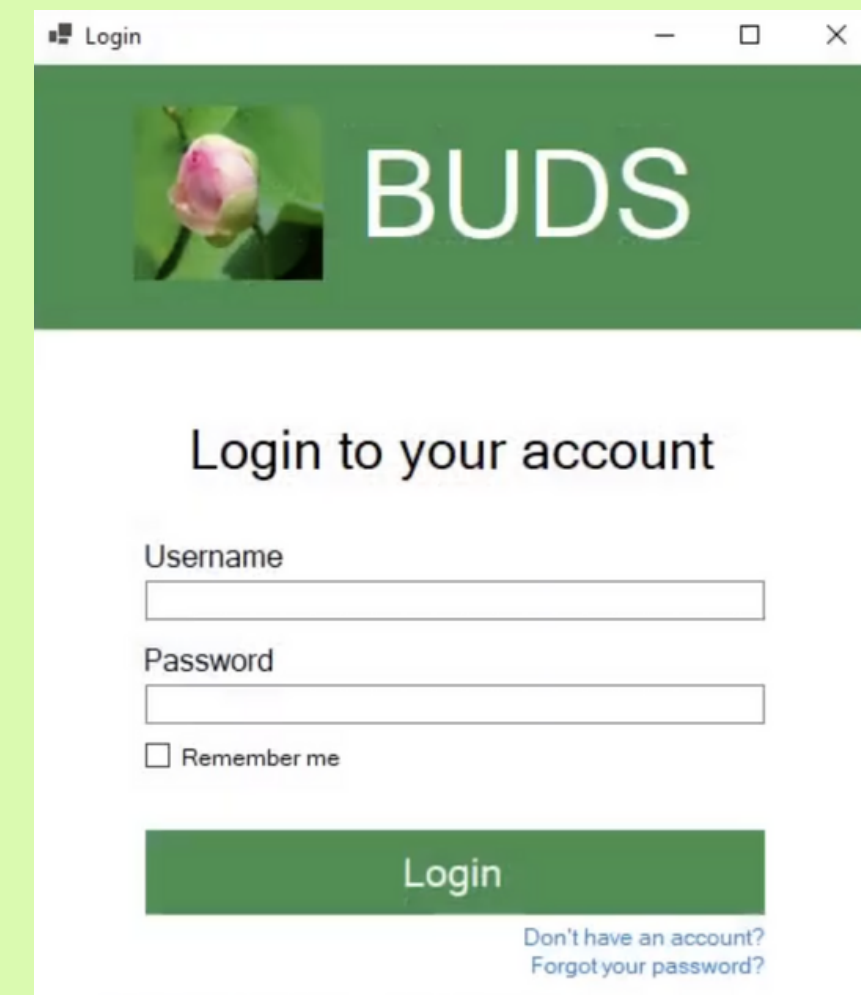**Sprint 4 -**

Prioritized Goals:

- Continued to work on roles for separate access
- Adding verification to all aspects of user login, creation, and deletion
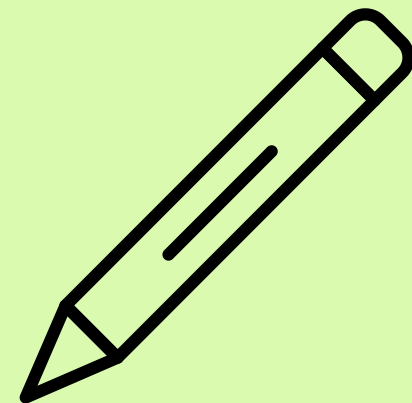- Finished fleshing out Stock Management and Product Management (update/ delete)

Sprint 5 -

Prioritized Goals:

- Refine GUI and catch bugs
- Create and streamline interactions between Products and Raw Materials tables
- Introduce Dashboard (GUI) and Report Generation Functionality

FINAL SPRINT GOALS

Work to finish debugging the application

Implement final changes to GUI (resizing)

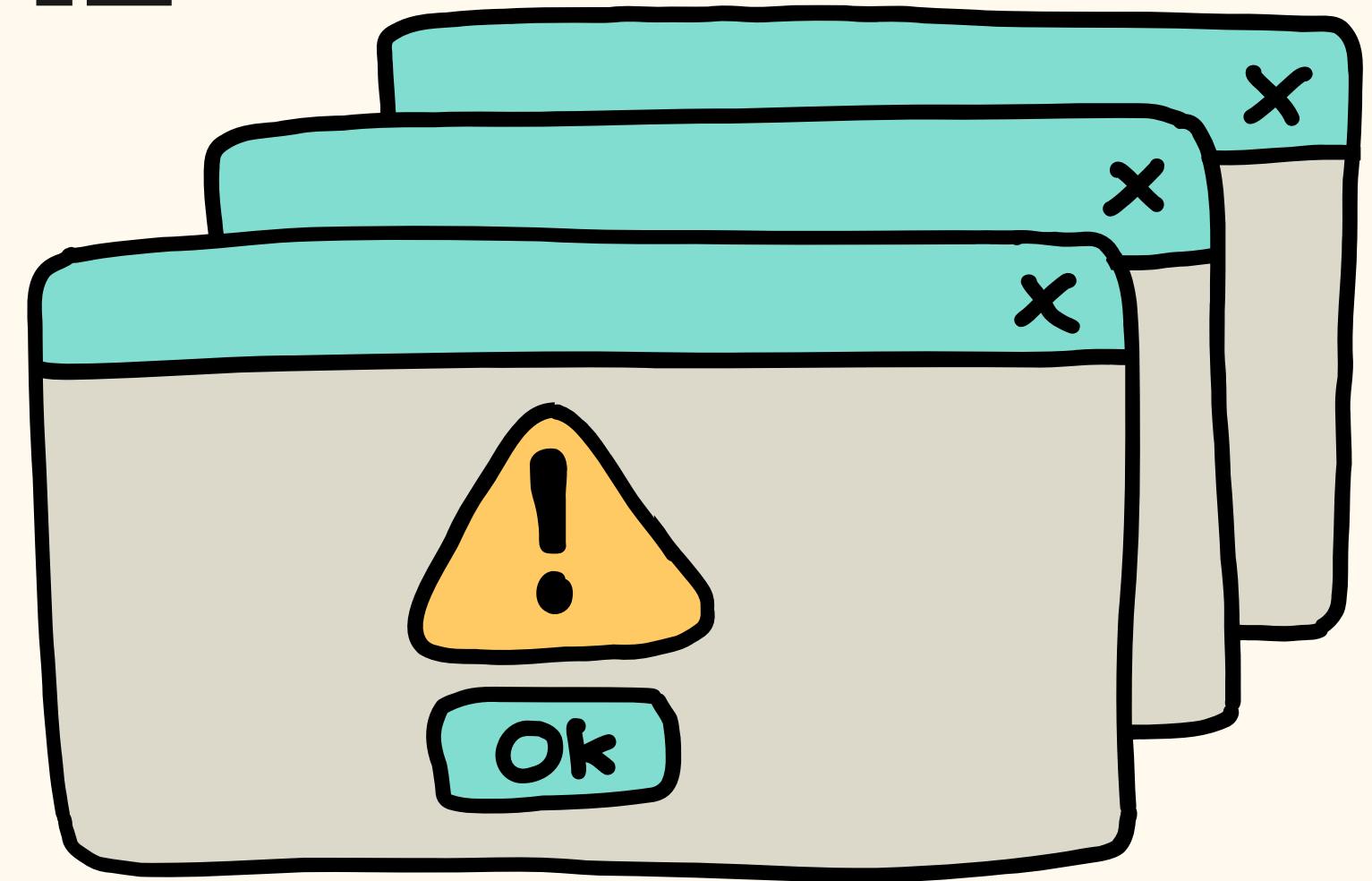Update and refine roles and give specific access for each role

DEMO
https://youtu.be/_y_5_q7H81I

CHALLENGES OVER TIME

- GitHub (Pushing, pulling, and merging)
- Linking Azure Remote Database to C# application
- Data Validation / Error Handling
- Working with new packages in VS (SqlConnection and XLWorkbook)
- Resizing and refining GUI

CONCLUSION

Biggest takeaways from this semester:
- Agile methodology - The art of doing twice the work in half the time
  - As a group we were able to distribute goals to accomplish evenly
  - We were able to work outside of our predefined roles (back-end -> front-end)

- Working as a team is a lot better than doing everything alone

- Happiness is a key factor in successful teams
  - Weekly check-ins to make sure everyone is ready to take on next week's goals
  - Retrospectives to try and see what challenges affected our ability to achieve sprint goals

- Visual Studio is a great resource for simplified software development

QUESTIONS?