




UNT College of ENGINEERING

Senior Design Day 2021



Department of
**COMPUTER SCIENCE
AND ENGINEERING**

Senior Design Day 2021



INFORMATION TECHNOLOGY

Senior Design Day 2021

Textbook Management System

By 404 Capstone Group Not Found



Team Members:

Chase Summers, Team Manager/Front-end Developer
Devin Tripp, Front-end Developer
Omer Saeday, Back-end Developer
Zach Friedman, Back-end Developer

External Sponsors/Mentors:

N/A

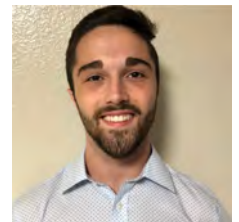
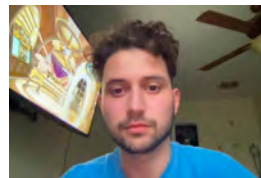
Internal Sponsors/Mentors:

Marla Salsman, Administrative Specialist
Diana Bergeman, Administrative Coordinator
Cameron Jones, Office Support Associate

Abstract:

- The CSE Library at the University of North Texas' Discovery Park currently handles textbook requests through pen-and-paper methods and the use of Microsoft Excel spreadsheets. This requires the Client to manually add, remove, and update the textbooks in use by professors or teaching assistants within the CSE curriculum and track textbooks that have been checked in or out.
- The goal of the TMS is to automate as much of this process as possible so as to reduce the amount of user error, while making the process more user-friendly and efficient.

The Development Team

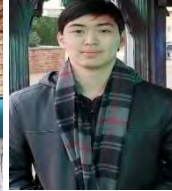
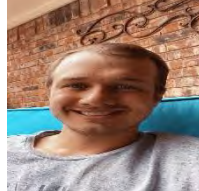


Eat Like the Rainbow Web Team

AGDZW

Team Members:

- Austin Bourgeois
- Warren Guiden
- Zach Bender
- Derek Diep
- Geetha Kelam



External Sponsors/Mentors:

- Cathy Zeis, Eat Like The Rainbow

Internal Sponsors/Mentors:

- David Keathly, UNT Computer Science and Engineering Professor

Abstract:

Chef Cathy Zeis has spent her life educating children about healthy foods and what a healthy lifestyle looks like. The Eat Like the Rainbow website continues this trend by targeting an audience of children up to grade 4 and providing a site that they can go to and learn about what is in the foods they eat and what is healthy for them. The user will be guided through the “rainbow garden” by Adam Apple and his friends like Toddy Tomato and Garman Grape. The site will include a variety of activities to engage children while learning useful information regarding healthy lifestyle choices. These activities include games like word searches and puzzles, coloring pages, animated videos of Adam Apple and his friends, as well as short quizzes that children can take at the end of a lesson. The purpose of this site is mainly a place where children can go to have fun while also learning useful information about what is in healthy foods and what a healthy life looks like.

IT_Capstone 4905

Team Members:

- Jian Ma
- Andrew Yang

External Sponsors/Mentors:

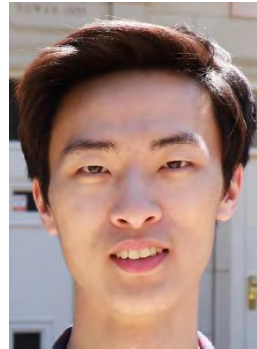
- Diana Bergeman

Internal Sponsors/Mentors:

- David Keathly

Abstract:

We create a budget tracking system that allows users to log purchases, expenses, etc., pull up reports on any defined chart string and see pending charges, expended charges, and report to show % of the year that's gone by, % of funds already spent, amount available to spend, etc. This system work with Microsoft Access and allow only one user to do the execution which help the sponsor to analyze the budget of the College of Engineering in UNT.





Eat Like the Rainbow: Phone Application Team Runtime tError

Team Members:

- Jared Carpenter
- Ivy Lin
- Cady Shelton
- Leighton Solomon
- Davina Ijimakinwa

External Sponsors/Mentors:

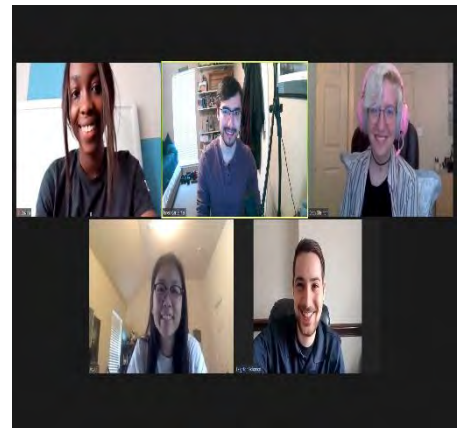
- Chef Cathy Zeis, Creator of the 'Eat Like the Rainbow' program.

Internal Sponsors/Mentors:

- David Keathly

Abstract:

Our team is aiming to solve the problem of individuals or families not having near instantaneous access to a plethora of nutritional and health information given to them in simple terms while shopping. Allergens, lifestyles, and current medications will be listed allowing you to heavily personalize what you can and can't eat as well as providing tips on items you should purchase.





Peer Review System

Team Twice

Team Members:

- Juan Delgadillo
- Luis Alba

External Sponsors/Mentors:

Internal Sponsors/Mentors:

- David Keathly

Abstract:

In many of the CSCE courses, instructors have students complete and submit peer reviews for group work, with students giving a grade and comments to their other members. These submissions have usually submitted through web-based course management systems such as Canvas and Blackboard, or in some cases through email. Completing peer reviews like this can be ineffective and slow since the instructors/graders will have to individually review each form.

The goal of this project will focus on creating a web-based/mobile application to facilitate this process for both students and instructors.



Juan Delgadillo



Luis Alba

Project Laundris – Team Fusion

Team Members:

- Joshua Stromberg
- Quyen Doan
- Pujan Khadka
- Serdar PiriyeV
- Sudip Neupane

External Sponsors/Mentors:

- Don Ward (CEO, Laundris Co.)
Email: don@laundris.com
- Dr. Cas Miller (Mentor, Capitol Factory)
Email: casmilner@gmail.com

Internal Sponsors/Mentors:

- David M. Keathly (Mentor)

Abstract:

Project Laundris , by Team Fusion’s primary focus is to create a cost-aggregation solution through a dynamic skew, collecting a database from the cloud and build a user-friendlier client-side front end portal for cost aggregation and data visualization for clients to track their linen management.

This additional feature will provide Laundris’s clients an excellent visualization on tracking and managing their linens and well as cost-aggregation for financial track.



Power Pals Dynamics BC Framework

Team Members:

- Hunter Reedy, Kyle Oge, Victor Escoto, Nicholas Norado, and Jonathan Adegoke

External Sponsors/Mentors:

- Ian O'Casey
- JPS Graphics

Internal Sponsors/Mentors:

- University of North Texas

Abstract:

The software uses Microsoft Dynamics Business Central (BC) Cloud version targeting the Commercial Print industry with a specific focus on creating two value add components built on to the platform. These components include:

- Quote Configurator that allows a non-sophisticated user to create a quote for a Customer request
- Job Scheduler that allows the Operations Manager to adjust the production schedule as Jobs come in with varying level of urgency and profitability

The team will enhance the Assembly process for Business Central and improve the Jobs process by adding a Scheduling and a re-scheduling capability. The Jobs functionality is extensive and highly complex so the goal is to simplify the process and create a capability tailored to the Print Industry. The Dynamics BC Framework is innovative and will definitely help improve the Jobs process for JPS Graphics.



Sleepy Cat Team

Team Members:

- Leader: Gage McGilvra
- Members: Alex Luong, Nirati Patel, Cristian Araya, Mitchell Severson

External Sponsors/Mentors:

- Parker Wallace

Internal Sponsors/Mentors:

- David Keathly

Abstract:

The problem we're trying to solve is couples who are getting married have difficulties covering the many expenses that arise when planning a wedding. They ask for help, but they must manually budget themselves to make sure they have enough money for each individual item in the wedding. Wedfully offers an all-in-one solution for couples to create a custom wedding page special to them that houses their wedding information and registry for friends and family to view and donate. This innovative design will give couples the power to focus on creating the wedding of their dreams rather than spending their time budgeting and keeping track of what they can afford.



Gage McGilvra

Mitchell Severson

Cristian Araya

Nirati Patel

Alex Luong



The Elite Four: Technology Asset Tracker

Team Members:

- Laureli Dougherty
- James Stowell
- Mitchell Buehler
- Kathryn Curran

External Sponsors/Mentors:

- Jason McMullen, AITS

Internal Sponsors/Mentors:

- David Keathly

Abstract:

The AITS-FASA department at the University of North Texas has used programs such as Microsoft Excel and Microsoft Access to keep track of their supported departments' capital assets, IT, and media inventory items that fall under their scope of support. A specialized application for their use is needed to standardize tracking, increase productivity, and establish a better workflow when related to inventory tasks and using the information tracked to assist end-users. Critically, it will add the functional ability to automatically track and log changes made to assets by noting who the change was made by, when the change was made, as well as what changes were made; this is a function that is not present in Excel or Access.





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