UNT College of
ENGINEERING

Senior Design Day 2019

Department of
COMPUTER SCIENCE AND ENGINEERING

INFORMATION TECHNOLOGY

CSE Advising Office Kiosk

Technocrats

Team Members:

- Alex Garnica
- Luis Plascencia

- Jared Quintana
- Jason Waites

External Sponsors/Mentors:

- N/A

Internal Sponsors/Mentors:

- Dr. David Keathly
- Melanie Dewey
- University of North Texas

Abstract:

The purpose of the CSE kiosk is to provide student visitors with help on various topics. It saves time for both the student, who can get help immediately, and the staff, who are only notified when they can help a student.

The main functions of the kiosk are to display information, email information to the student, or send a notification to a staff member.

Team Tech

Team Members:

- Michael Dennis
- Nadia Kanwal Khan
- Adan Contreras
- Buchi Diai
- Leiton King

External Sponsors/Mentors:

- Justin Dews

Internal Sponsors/Mentors:

- Dr. David Keathly

Abstract:

Our team, TeamTech, is Developing a solution to integrate multiple administration systems into a single web application, focusing on technician productivity and ease of use. The plan is to use APIs to display, record, and manage data from ConnectWise, Office 365 Admin.

The Client, TechVera, uses a program called ConnectWise to manage 75% of their business. It is slow, cumbersome, and deeply rooted in the entire business. TechVera is growing and is looking for a way to maximize the productivity of their engineers by spending less time navigating through a UI, and more time solving their client's problems.

Our team's goal is to eliminate the need to use ConnectWise & 365 Admin for Tier 1 help desk technicians.

UNT COLLEGE OF ENGINEERING
EST. 1890

On Task

Team Members:

- Andrew Adkins
- Terrance Jackson
- Peter Neal
- Brett Piatek

External Sponsors/Mentors:

- Diana Bergeman
- Dr. Barrett Bryant
- Jim Halpert

Internal Sponsors/Mentors:

- Dr. David Keathly

Abstract:

OnTask is a task management / shared planner web application built to create, sort, and manage tasks within an office environment. OnTask is fast and efficient with an emphasis on instant reactivity to task changes and progress. OnTask was created by the IT Capstone group "Terrence Jackson and the TJs" for the Faculty and Staff of the CSE Department at UNT.

OnTask manages tasks with the robustness of a ticketing system with the ease of access of a planner. Tasks can be assigned to individuals or groups simultaneously, automatically tracks user statistics, prioritizes tasks using built-in business logic, and integrates with already-in-place UNT resources.

OnTask is built on Meteor, a full-stack web development framework that leverages real-time distributed data processing, that abstracts websocket programming to be as simple as "define a collection, publish a collection on the server, subscribe to the collection on the client, and automatically update the DOM when changes to the collection are made". Using native Meteor functionality hand-built delivery logic, OnTask is a powerful, efficient tool for creating and accomplishing tasks.

W3 Digital Vision
Team Eventer Support

Team Members:

- Timothy Clark
- Daniel Mandujano

- Kevin Spracklen
- Marshall Montgomery

External Sponsors/Mentors:

- Bryan Montgomery

Internal Sponsors/Mentors:

- Dr. David Keathly

Abstract:

W3 Event Specialists are an Austin based company providing event staffing services such as music venue security, stage building, and film set security. The company's current site serves to provide basic information about the company and its services and some links to information for contractors. The client believes that the site could be doing more for the company and wants to implements several changes to add functionality to the site for the company and all users. Ideas that the team explored for implementation include a calendar employees could log into to view and sign up for jobs, a service request page that prospective clients could use to request staffing, adjustments to the online employ application that allows information to flow more smoothly into paperwork, and adding mobile support for the site.

Carnac, Reddit Trend Analyzer

Team Members:

- Justin Stout
- Vien Huynh

- Ezequiel Cepeda
- William Quan
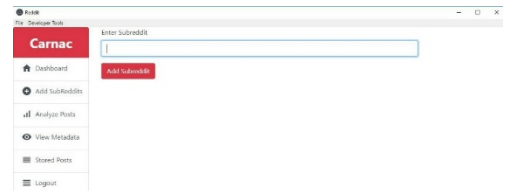
External Sponsors/Mentors:

- Kyle Taylor, TechMill Denton

Internal Sponsors/Mentors:

- Dr. David Keathly

Abstract:

Carnac is an application that allows users to target specific subreddits or groups of subreddits to gather data about trending posts from reddit.com, and perform data analysis using natural language processing.

Digital Signage System
4N1

Team Members:

- Brandon Soo
- Jorge Mendoza

- Venice Luong
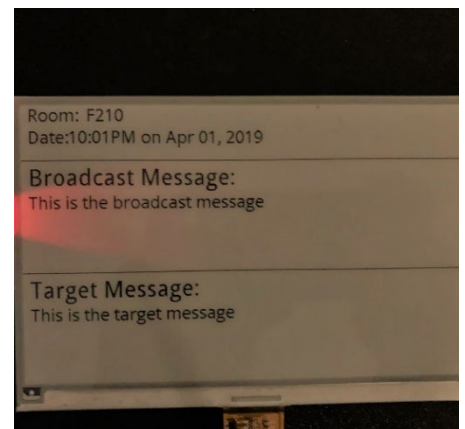- Ghadeer Alqaisoum

External Sponsors/Mentors:

- N/A

Internal Sponsors/Mentors:

- Dr. David Keathly
- Thomas Kanabay

Abstract:

The Computer Science Engineering department's [CSE] workers, who have offices, have issues communicating with their students. When the workers are not going to be in their offices for many reasons, they have to announce it to all students in the department which required that they write a note in 7 labs including their own offices. Moreover, the note should have a reason for not being in the office, change in lab hours, or office hours which cost time and effort especially if the workers need to change the notes daily.

The team 4N1 has come up with an idea to solve the problem that the workers in the CSE are facing by creating Digital Sign System for CSE Labs which is basically a messaging program that sends a message from one device to other multiple devices. Also, it will have the ability to preview time and date. The devices will be hanging on each of the lab's window. They will receive messages from the administrator's server side, and the students will only see the notes or the message that the workers want to deliver to the students.

Room: F210
Date:10:01PM on Apr 01, 2019

Broadcast Message:
This is the broadcast message

Target Message:
This is the target message

CirclesU - Car Ramrod

Team Members:

- Myles Edwards
- Keith Armstrong
- Corey Gendron

- Ryan Gibeault
- Kiefer Hardin

External Sponsors/Mentors:

- Parker, Wallace
- Forerunner Creative, Inc.
  608 E. Hickory St., Suite 128, Denton, TX, 76205

Internal Sponsors/Mentors:

- David M. Keathly
- UNT Discovery Park
  3940 N Elm St, Denton, TX 76207
  Office: NTDP F202

Abstract:

The "CirclesU" application is a mobile-based app that connects users to social groups based on their location within a geofencing location. These groups, or circles, can be created by users to share content exclusively with other people that join their groups, that is, if they have visited the required location to validate access to a particular circle. CirclesU is to be developed as a progressive mobile application, as to mediate the need of developing solely for iOS/Android. A stable Internet connection will be necessary for use of this application, as well as GPS capabilities. The use of Google Maps API will be a key component of the development for GPS and geofencing capabilities.

Amba Pim Pim

Team Members:

- Zach Scott
- John Nguyen

- John Cunningham
- Shelton Childress

External Sponsors/Mentors:

- Isaac Zama

Internal Sponsors/Mentors:

- Dr. Marty O'Neill

Abstract:

Amba Pim Pim is a android taxi application that connects an able driver with a client that needs automobile transportation. The main thing that separates this transportation service from other taxi services it that it removes unnecessary traffic and clutters that taxi drivers create when trying to find a client. Our application helps by creating an interface between the client and driver to establish a relationship and route before the trip takes place. Aside from making the roads safer, our application gathers useful data from our users such as their routes so that infrastructure planners can use it in their decision in making transportation more accessible for all. The application is very simple to use, for the clients, after they have made an account all they would have to do is request a ride and fill out key information such as their location and destination.

Once that is done, a driver who is in the ready state will

receive an incoming message that they will either accept or decline to take the passenger. If the driver accepts they will receive the client's request details and if they decline the application will send another client's request.