**Group 18**
**Blockchain Technology – Oregon Wineries**

Project partner: Jim Cupples

Team members: Michael Payne, Alexander Smith, Sonia Camacho, Yue Xu

# Alexander Smith

I am a fourth year computer science major with a focus in cyber security at Oregon State University. I have primarily taken on the role of team lead, performing many of the administrative tasks that such a role would entail, such as running meetings, managing timelines, and handling our project's repo. On the more technical side, I have invested most of my development time into our project's "wine form" page, ensuring that the correct categories are present and that the input is validated before being uploaded into our blockchain.

# Michael Payne

I am a fourth year computer science major with a focus in cybersecurity. Up until this point, I've spent the majority of my time coding and doing research on the technologies that we're using to build our project. Over winter break, I took an online course in web development and also read through the documentation for Hyperledger Sawtooth and Docker. I was able to set up a virtual blockchain network that we could run on our personal computers for testing purposes. I was also able to code and develop the transaction processor that the Sawtooth blockchain needs to make sure proposed transactions are acceptable. And, finally, I built a winery client and a customer client with Javascript, Node.js, HTML, and CSS.

# Sonia Camacho

I am a fourth year computer science systems major as well as a first year graduate student in the accelerated masters program. Throughout my time on this team my role has fluctuated quite a bit,I have been a leader and a good teammate who does all the work assigned to me. Overall my contributions consisted of: creating design concepts that allowed us to show our project partner what we had in mind for our winery client, transforming those concepts from our mock ups to our actual pages. I have now gained the trust and confidence to be our primary design/style developer.

# Yue Xu

I am a fourth year computer science student with a focus in cybersecurity. Although I had a lot of time zone conflicts with the other team members, I tried my best to keep in touch with them and get involved in the project. I primarily using the Figma to create the mockups for the project. I'm mainly responsible for the design of the prototype and the mockups to make the project meet the requirement of usability. At the same time, I am very grateful to my teammates for their help to the project and me. I am also very grateful to them for their understanding of my time zone conflict. I believe I'm currently a good prototypes/mockups designer.

# Jim Cupples

Our project partner, Jim Cupples, has years of experience with local agriculture and entrepreneurship. He is interested in exploring blockchain technologies and has presented to us his business idea of tracing wine using a blockchain for validation. The stakeholders in this project are the wineries in the Oregon area as well as their customers.

# Overview

Our project is to develop two web applications that use blockchain technology and a database to create a system that wineries and customers can use to track and log the information about different bottles of wine.

This tracking method ensures that the customer is receiving authentic bottles of wine, and that they are able to see all of the wine's information. The entire creation process for a single bottle can be recorded in sequential blocks that cannot be altered.

Our first client is for the wineries where they can add, edit, and complete wine batches. The second client is for the customers where they can scan a QR code (generated from the completed wine batches) and view all of the characteristics of their specific bottle.

# Process

There are four components to this project that our team is responsible for developing and maintaining: a blockchain, a mongo database, and two web clients (one for the wineries and one for the customers).

Wineries will use their account to upload the information on their wines to the blockchain. Customers will be able to read this wine info without an account, but they will need to create one in order to receive a rebate (currently a stretch goal).