

Implementing Blockchain as an Alternative to Academic Transcript

Team: NULL

Members: Jonathan C., Andrew F.,
Angela T., and Vananh V.



Outline

- Recap: What is our project about?
- Roles, Tools and Languages
- Current Progress
- What's next?
- Goals
- Timeline

Recap: The Problems with Paper Transcripts



Recap: Our Solution



Roles, Tools, and Language

Programming Language:



Platforma: Linux, MacOS

Tools: PyQt5



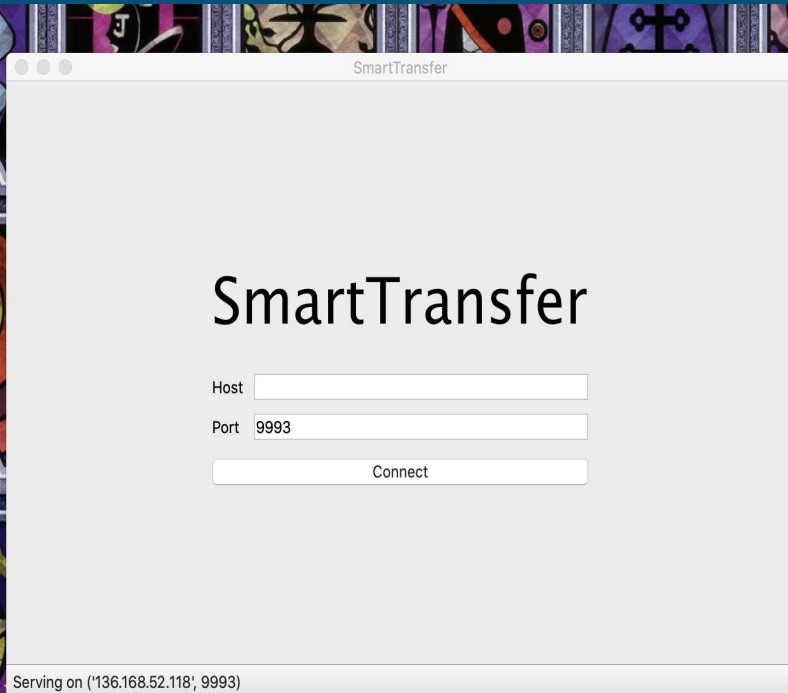
Roles:

- Networking: Andrew & Jonathan
- Data Structure: Vananh
- Front-end: Angela & Vananh

Current Progress

- Estimate Completion: 60%
- What's new?
 - Having a basic UI.

Current Basic UI



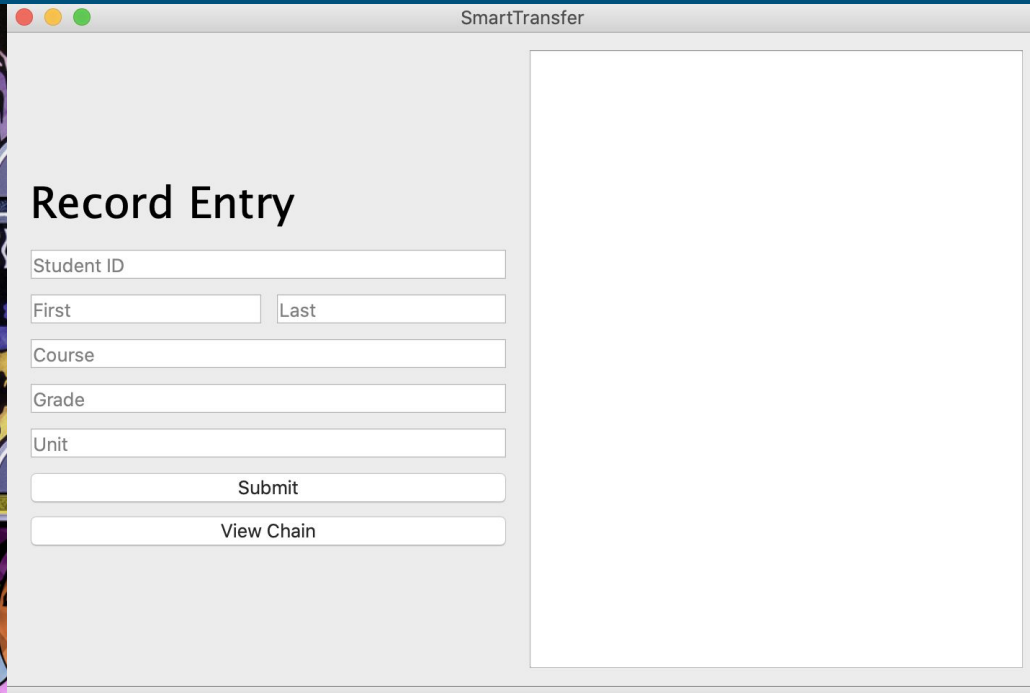
SmartTransfer

SmartTransfer

Host

Port

Serving on ('136.168.52.118', 9993)



SmartTransfer

Record Entry

Student ID

First Last

Course

Grade

Unit

Serving on ('136.168.52.118', 9993)

Current Basic UI (cont.)

SmartTransfer

Record Entry

12345678

John Doe

CMPS 9999

A

4

Submit

View Chain

Serving on ('136.168.52.118', 9993)

SmartTransfer

Record Entry

12345678

John Doe

CMPS 9999

A

Unit

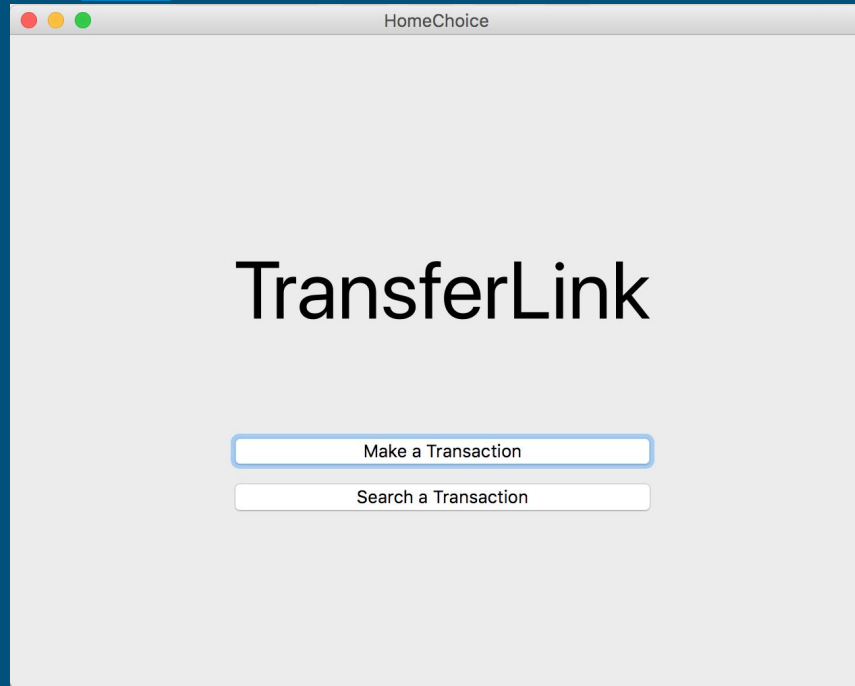
Submit

View Chain

```
{ "header": { "prev_hash": "00000000000000000000000000000000", "merkle": null, "nonce": 0, "timestamp": 1542528000 }, "block": { "student_id": "000000000", "name": { "first": "Genesis", "last": "Block" }, "course": "CMPS 6909", "grade": "A", "units": 3.0 } }
```

Serving on ('136.168.52.118', 9993)

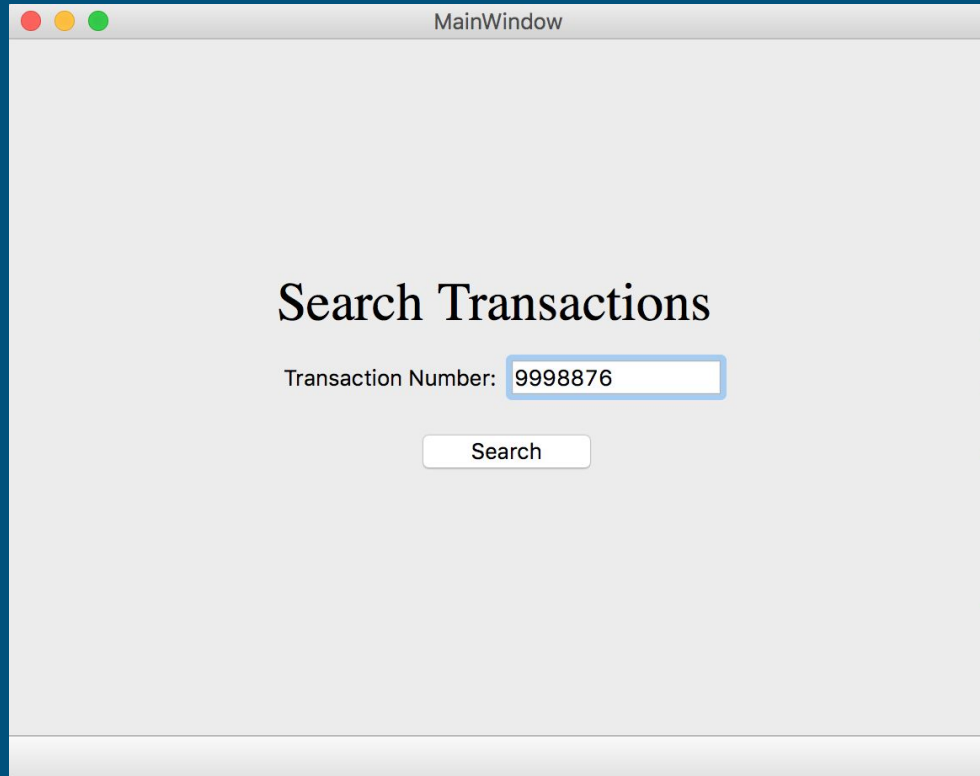
Screenshots of UI



A screenshot of a web browser window titled "MakeTransaction". The page has a white background and a grey header bar. The main heading is "Make a Transaction" in a large, black serif font. Below the heading is a line of text: "Please input all class information before proceeding." The form is organized into two columns: "Course Information" on the left and "Student Information" on the right. Each column contains several input fields. The "Course Subject" field is highlighted with a blue border. The "Total Units" and "Units Earned" fields are spinners with a value of 0. The "Semester" and "Year" fields are empty text boxes.

Course Information	Student Information
Course Subject: <input type="text"/>	Student ID Number: <input type="text"/>
Course Number: <input type="text"/>	First Name: <input type="text"/>
Course Title: <input type="text"/>	Middle Initial: <input type="text"/>
Total Units: <input type="text" value="0"/>	Last Name: <input type="text"/>
Grade Earned: <input type="text"/>	
Units Earned: <input type="text" value="0"/>	
Semester: <input type="text"/>	
Year: <input type="text"/>	

Screenshots of UI

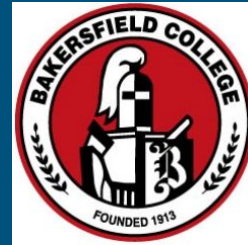


What's next?

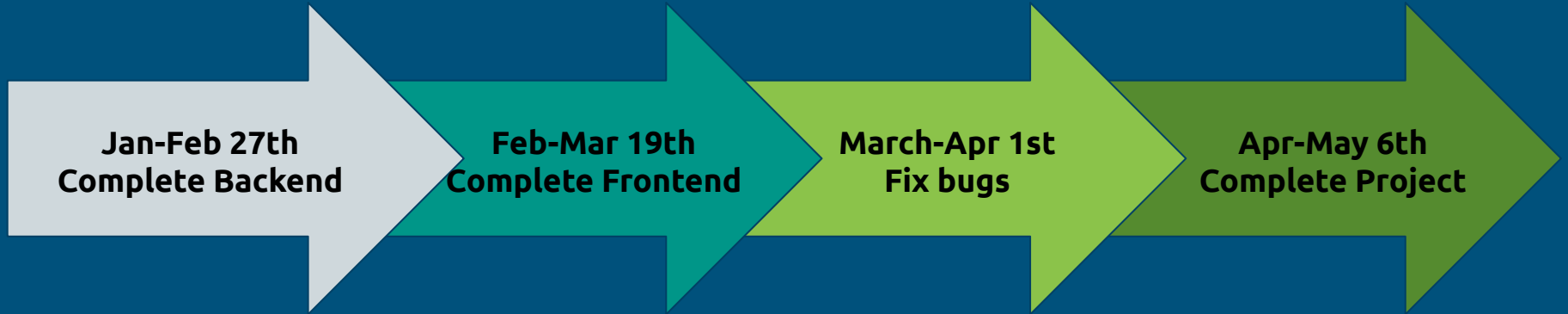
- Fixing bugs for the backend: Connection between devices
- Storing blockchain after running the program
- Enhancing the UI

Goals

- Introduce our “proof of concept” to the Kern High Schools District, Bakersfield College, and CSUB
- Change our application to fit Chevron’s need



Timeline



Question?

