**CSC 179**

**– Software Testing and Quality Assurance -**

**Summer 2022**

**Software Development Project**

**Project Description V1.0**

**Project Client:**

Mr. Chris Grove

Part-time professor, SW Manager @ Micron

Discord: PukaZuka#1630

**Project Sponsor**: Vendia

**Project Overview**

Create a company health dashboard that HR can use to craft preventative health policies and benefits. HR will also be able to use the data to negotiate a better price with insurance companies.

To keep the project in scope for the summer session the focus will be on creating the dashboard and the ability to share selected fields of the employee health data with an insurance company.

**Vendia Information**

Vendia is a tech startup founded by my wife, Shruthi Rao, and Tim Wagner. Shruthi is formerly from AWS and worked on business development for Lambda and also launched Amazon Managed Blockchain. Tim Wanger invented AWS Lambda and is called the “father of serverless.”

They each have seen the potential of blockchain technology but also have seen that it isn’t feasible for companies to set up and maintain servers, the technology isn’t scalable, and it is too slow. They decided to start a company that solves those challenges and with Vendia they created the next version of blockchain that is serverless, scalable, and fast.

[Vendia](https://www.vendia.net/) just closed their [series B](https://techcrunch.com/2022/05/31/data-sharing-platform-vendia-raises-30m-series-b/) funding and continues to build on their early success.

Vendia is committed to supporting students learning their platform and highly encourages questions and feedback through their community forum: <https://community.vendia.net/>

Don’t hesitate to ask questions there, they won’t bite :)

**Tech Requirements**

1. Data stored using Vendia
2. Rest of the tech stack is completely up to you! Whatever gets you there faster.

**Employee Data**

Many companies have health plans that encourage employees to log activity, diet info, and annual blood work test results. Larger corporations even have onsite doctors to take some basic vitals such as weight, blood pressure, etc.… For this assignment we are going to create at least 10 employees. Feel free to be creative with names and statistics. While some of the activity logging can be complicated, I am going to provide a simplified view.

1. Name (first, last)
2. Age
3. Gender Identity (select all that apply):
   1. Woman
   2. Man
   3. Transgender
   4. Non-binary/non-conforming
   5. Prefer not to respond
4. Height
5. Weight
6. Body temperature
7. Pulse rate
8. Blood pressure
9. Respiration rate
10. Avg hours of exercise per week
11. Vacation Balance (the higher the balance the less someone is taking needed breaks)
12. Avg hours of work per week

The dashboard should have a way for employees to be created.

**Dashboard**

Minimum features - Aim low achieve your goal

1. Add employee
2. View aggregate data for all employees without seeing specific names
   1. Select gender
      1. See averages for 4-12 of employee data
   2. Without gender selected
      1. See total averages for 4-12 of employee data
3. Select option to share with another user
   1. Using a second Vendia account from your team, invite someone to participate and create a partner node
   2. Share with the second account the data without personal identification information - In this case we only have the name that needs to be held back.
   3. Revoke access to the second account
   4. Note that demonstration can be done from Vendia itself. To keep this project sized for summer there doesn’t need to be a second WebApp to display what the second account can see.

Additional Features to set you apart - You eat over-achievers for breakfast

1. Do more than Average…
   1. Standard Deviation
   2. Mean
2. Find different cross-sections for the data. Some ideas (you may have more)
   1. % of gender working more than 40 hours a week
   2. Do people that workout more than x hours per week have
      1. More/less time off available
      2. Lower/higher blood pressure
      3. Lower/higher respiration rate
3. Come up with other vitals for the employee
4. Create a mini page for the second account that displays info nicely and uses some key metric to determine if they will provide cheap or expensive health coverage. Up to you on what you want to use as data. Could be simple or complex.

**Software Quality**

Automated testing using Selenium or equivalent.

**Vendia Resources**

1. This raffle at this link is over, but you can get a quick Vendia tutorial here:

<https://community.vendia.net/t/sac-state-ux-test-razer-keyboard-raffle/43>

1. How to share data with fine grained control:
   1. <https://www.vendia.net/blog/sharing-data-with-fine-grained-control>
2. Vendia Community Support:
   1. <https://community.vendia.net/c/support-share/6>