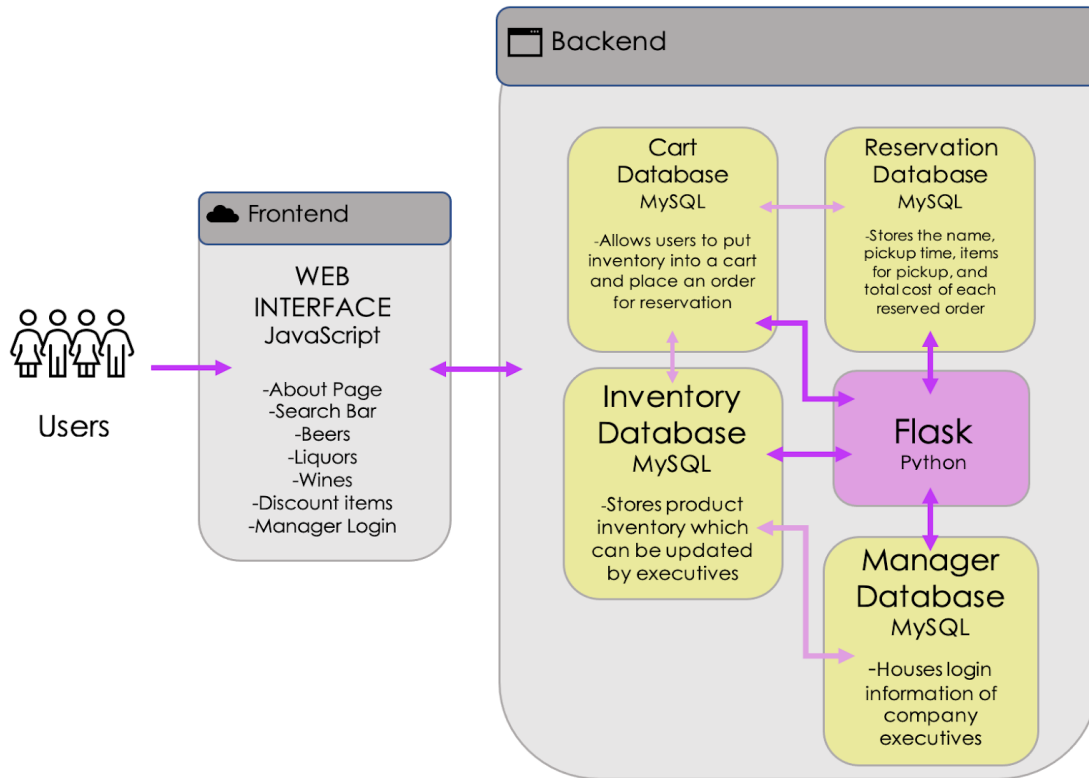# Rowdy Rams Beverage Co.
Deliverable 1

Bella Bedore, Mike Hutelmyer, Emily Miller, Tyler Pittenger, Cade Uhlin
February 3, 2022
CSC 468-02 Introduction to Cloud Computing
West Chester University of Pennsylvania

Technical Report

Chapter 1 - Project Vision

Chapter 2 - Technical Implementation

Rowdy Rams Beverage Co. is an end-to-end solution to enhance inventory tracking technology for alcohol retail establishments. This website will allow customers to reserve an order for later pickup and purchase onsite. This will ensure that the distribution center will have enough inventory available to provide customers with their order, at the time of pickup. While designing the system architecture of this project, convenience and scalability are large components in the implementation of databases.

The front-end of the inventory tracking project is comprised of a WebUI that includes displaying available products, quantity available, a login portal for administrators or managers, and a cart option for users to request an order to be put on reserve for 48 hours. In addition, the webpage will include a search bar that will bring up matching results in real time. The front end will be built utilizing React, a JavaScript library for developing user interfaces.

The backend portion of this project will be handled by the Python framework Flask. Flask is a lightweight web framework written in Python that allows for quick and easy deployment of websites. Flask has the ability to handle multiple files of frontend languages such as JavaScript, HTML, and CSS that will allow a user to traverse the website. Flask also has the ability to interact with databases to pull data that will be represented on the frontend for the user. There

will be two separate databases, inventory database and manager database. The inventory database will contain the product, SKU, quantity, and a few additional features. This will be implemented utilizing MySQL which works well with Flask. The Manager database will house the login information for company executives and employees, allowing them to manage and edit inventory. The inventory, cart, and reservation databases will communicate with each to reflect an accurate inventory as users reserve orders.

Overall, the main purpose of Rowdy Rams Beverage Co. is to provide a streamlined service to adult beverages distribution centers to maintain detailed records of their current stock while simultaneously providing customers with up to date information on if their favorite beverages are available.

Member Resumes:

Isabella Bedore

Computer Science Student

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Howell, NJ

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PROGRAMMING LANGUAGES —

o Java
o Python
o OCaml
o C++

EDUCATION

Aug 2019-Present
West Chester University of Pennsylvania, West Chester, PA
- GPA: 3.86/4.00
- Minor in Philosophy
- Certification of Computer Security
- Dean's List Fall 2019, Spring 2020, Spring 2021, and Fall 2021
- Relevant Coursework: Data Structures and Algorithms, Programming Language Concepts and Paradigms, Computer Security, Cloud Computing, Malware Analysis, Computer Systems, Networking, Discrete Mathematics

Sept. 2018- Dec.2020
Brookedale Community College, Lincroft, NJ

ADDITIONAL SKILLS —

o Organized
o Compassionate
o Hardworking
o Detail Oriented
o Proficient in all G-Suite applications
o Extensive experience with Microsoft Word and Excel

TECHNICAL EXPERIENCE

Projects
o **Lexical Analyzer** (2021)- Java Based Program. Breaks down and analyzes each lexeme of a program to be parsed into the syntactical analyzer. Enhanced my understanding of compilation process.
o **Instrument Alphabetizer** (2020)- Java and Python based program. Added, sorted, searched, and removed items from a doubly linked list. Helped in the understanding of DLL data structure and sorting/searching algorithms
o **Left Right Center** (2017- Java Based Program. Utilized randomizing algorithms that allowed the program driver to play against multiple "computers"

LEADERSHIP

o Secretary of High Street Harmonix (Fall 2020- Present)
o Uniform Coordinator for West Chester Marching Band (Fall 2021- Present)
o Sisterhood Coordinator for Tau Beta Sigma-Zeta Upsilon Chapter (Fall 2021- Present)
o Member of Computer Security Club, Computer Science Club, Women in Computer Science Club, and A Moment of Magic
o Girl Scouts of the Jersey Shore-Girl Representative (Sept. 2018- June. 2019)

Michael Hutelmyer

Phoenixville, PA 19460 **|** (610) 613-9781 **|** michaelhutelmyer@gmail.com

EDUCATION

West Chester University, West Chester, PA   **2019 to May 2022**
- *Bachelor of Science in Computer Science, with Computer Security Certificate*   **GPA: 3.8**
- *Relevant coursework: Data Structures and Algorithms, Programming Language Concepts/Paradigms, Cloud Computing, Software Security, Software Engineering, Computer Systems, Data Comm & Networking, Discrete Mathematics, Malware Analysis*

East Stroudsburg University, Stroudsburg, PA   **1998 to 2002**
- *Major: Business Management*

COMPUTER AND SOFTWARE PROJECT EXPERIENCE

- Java, Python, OCaml, SQL and C++
- Microsoft Office - very efficient in Excel & Word
- Created a Lexical Analyzer
- Software Development Process Project
- Docker Container and CloudLab
- Track-It! and Brightree
- Mac Terminal and Ubuntu
- Change Healthcare, Navinet, Availity
- Computer Security and Ethics Blog
- Virtual Machine

ACHIEVEMENTS AND AWARDS

- Adapt. Believe. Compete. Award winner at ABC Medical 3x
- Six Sigma Yellow Belt Certified
- Upsilon Pi Epsilon International Computer Science Honor Society
- West Chester University Dean's List 4x
- AT&T STEM Scholarship Award Winner 2x
- Unisys Scholarship for Student Success

PROFESSIONAL EXPERIENCE

ABC Home Medical Supply Inc., DME Provider, Exton, PA/Port St. Lucie, FL   **3/2018 - Present**
Application Support Supervisor
- Manage support team of 4 direct reports, supporting 100+ users in 3 major U.S. offices.
- Communicate regularly with support team at Brightree, the software platform that runs the business.
- Supervise implementation and management of Validation Rules based on specific insurance billing guidelines.
- Oversee support on user requests for the production, management and delivery of services.
- Lead a team that handles all database updates for new items added to inventory.
- Manage special projects on mass updates for item allowables housed in database.
- Oversee support team responsible for creating and maintaining portal access for users.
- Developed process for payer updating, involving large data set manipulation.
- Analyze adjustment reports from Reimbursement dept to identify trends where pricing updates are needed.
- Collaborate with Finance and Contracting departments on price table allowable reporting.
- Organize and run weekly department meeting.
- Directed project to completion with goal to eliminate a non-profitable part of the business.
- Assist Finance department on bank consolidation data.
- Collaborate with VP of Systems & IT establishing department budgeting.
- Used relevant work responsibilities/tasks in Fall 2020 to fulfill Internship credits at WCU.

Michael Hutelmyer

Phoenixville, PA 19460   **|**   (610) 613-9781   **|**   michaelhutelmyer@gmail.com

ABC Home Medical Supply Inc., DME Provider, Exton, PA   **1/2017 – 3/2018**
Application Support Specialist
- Managed master spreadsheet as Lead Specialist of 8000 unique items on 250+ price tables in database.
- Used vast knowledge of payer rules to manage user requests for system set up so services could be delivered.
- Handled special projects like annual Medicare pricing update or item reclassification.
- Was point person for department in multiteam process for adding new items to database.
- Configured and maintained new and existing payers in our system.
- Trained reimbursement team on software and all SOPs when department was transitioned to Florida office.
- Managed all system process needs for returned orders.
- Created and maintained portal access for users.

ABC Home Medical Supply Inc., DME Provider, Exton, PA   **1/2013 – 1/2017**
Billing Coordinator
- Ran weekly reporting on company-wide revenue and Reimbursement team productivity.
- Managed all Blue Cross receivables and Illinois Medicaid receivables (Approx. 675 patients monthly).
- Oversaw billing reps responsible for all other state Medicaid receivables (Approx. 250 patients monthly).
- Created resolutions to nationwide Blue Cross billing and claims filing change for DME supplies.
- Confirmed orders and performed billing review for monthly orders.
- Trained new employees on billing procedures and software.
- Analyzed denial trends and claim rejections and created resolutions.
- Coordinated Commercial appeals.

Medical Supply Cabinet, dba: Aesbar Medical LLC, DME Provider, Horsham, PA   **4/2012 to 10/2012**
Senior Billing Representative
- Assisted with supervision of the billing department.
- Reviewed total AR, determined most efficient way to collect open receivables.
- Assigned and worked remittance and receivable reports.
- Entered, confirmed, and submitted electronic claims.
- Analyzed claim denial trends and created spreadsheets for resubmission.
- Coordinated Medicare and Commercial appeals.
- Reviewed patient files ensuring they meet medical necessity guidelines.
- Trained new employees on software and procedures.

Emily Miller

emilymmiller1@outlook.com | (443) 617-2141 | www.linkedin.com/in/emilymiller913278

Area of Focus: cybersecurity | geographical information systems | software engineering | software development

Education:

Major: Bachelor of Science in Computer Science - West Chester University of Pennsylvania, Honors College | West Chester, PA 19383
Concentration: Cybersecurity | Minors: Geographical Information Systems
Cumulative GPA: 3.36 | Anticipated Graduation: May 2022
Extracurricular Activities: Honors Student Association; Cybersecurity Club; Women in Computer Science

Languages and Technologies:

Programming Skills: Java; Python; C; SQL; OCaml; HTML/CSS; JavaScript; Object Oriented Programming
Software Skills: Microsoft Office Suite; Final Cut Pro; QuickBooks; ArcGIS Pro; Visual Studio; Virtual Box; Linux

Relevant Coursework:

| Malware Analysis | Software Security | User Interfaces | Data Structures and Algorithms | Cloud Computing |
| Computer Security and Ethics | Digital Image Processing | Computer Cartography | Geodatabase System |

Professional Experience:

Argo Consultant - Argo | Belcamp, MD 21017 | May 2020 - Present
- Implemented and updated a back-end dashboard utilizing Linux database and bootstrap components
- Attended weekly meetings with developers to discuss app progress and updates
- Gathered lake bathymetry data to create 2D arrays of coordinates

Office Administrator - B. E. Miller and Son | Street, MD 21154 | May 2019 - Present
- Maintain detailed records of customers' transactions and customer information
- Utilize QuickBooks to maintain company records
- Communicate with customers regarding payments and billing information

Sales Associate - American Eagle | Bel Air, MD 21014 | August 2017 – December 2020
- Leverage company tools and technology to confidently provide the customer with product knowledge to enhance customer engagement and maximize sales
- Proactively resolve customer concerns in a manner consistent with company policy, and with customer satisfaction in mind, partner with store leadership team on elevated customer issues
- Consistently provide support to fellow employees through sharing of knowledge, helping to complete tasks and/or assisting in customer interactions

Research Intern - Flowers by Bauers | Jarrettsville, MD 21050 | August 2016 - May 2018
- Created and implemented various research projects on the manufacturing of plants within the parameters of a greenhouse
- Constructed a new action plan to enhance the effectiveness of growth within the greenhouse to improve productivity and sales
- Analyzed data to determine the effects of variants on different species of plants

Technical Experience:

Lexical Analyzer (2021) – Java program that analyzes lexemes contained within a program to be parsed into the syntactical analyzer to enhance understanding of the java compilation process.

Argo Dashboard (2021- Present) – Python based program that analyzes back-end user data to display real-time user behavior in the form of graphs and statistical projections.

WCUPA Honors College Mobile Application (2021-Present) – React Native mobile application that utilizes JavaScript. Created front-end and back-end utilizing firebase.

Awards & Honors:

Honors Award Scholarship	2018 - Present
Academic Excellence Scholarship	2018 - Present
Dean's List	Fall, Spring 2020; Fall 2021

71 Mary Fran Drive
West Chester, PA 19382

TYLER PITTENGER

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EMPLOYMENT

Systems Administrator   **Analytical Biological Services**   **Aug 2020 - Present**
- Designed, implemented, and administrated numerous policies (networking, security, other IT related procedures)
- Administration of Microsoft 365, Active Directory, Azure, NetSuite
- Physically manipulate hardware across all computers, servers, and other machines on the domain/network
- Maintain and organize technology
- Responsible for new and existing employee IT & Security training
- Proficiently troubleshoot and resolve IT requests through a ticketing platform

EDUCATION

West Chester University of
West Chester, PA   **Pennsylvania**   **Fall 2018 – May 2022**
- B.Sc. in Computer Science with Minor in Computer Security, May 2022. In-major GPA: 3.8
- Undergraduate Coursework: Data Structures; Algorithms; Programming Languages; Comp. Architecture; Malware Analysis; Software Security; Cloud Computing; Full-Stack Development; Agile Processes;
- Extracurricular: Computer Science Club; Cybersecurity Club; Competitive Programming Club;

Monroe County Technical Institute   **Fall 2009– May 2013**
Poconos, PA
- Studied Computer & Information Science, May 2013. GPA: 4.0
- Various certifications in Computer Security, Networking, and Repair
- Coursework: OSI/TCP Model; Communication Protocols; Transmission Technologies; Cloud Computing; Databases; System Development Lifecycle; Documentation Procedures;

TECHNICAL EXPERIENCE

Projects
- **Lexical Analyzer** (2021). Takes the lexical structure of a program as input and analyzes each lexeme to be parsed into the syntactical analyzer. Created with Java to deepen my understanding of the compilation process.
- **Personal Blogfolio** (2020). Website built to act as both a Computer Security blog and a portfolio of various projects; Created with Ruby and Jekyll.
- **Full-Stack Project** (2020) Website built to demonstrate proficiencies with APIs, Databases, Authentication, Front/Back-end, and more. Created with JavaScript, MongoDB, Express, Angular, and Node.
- **Advanced Keylogger** (2019) When running in the background, this program creates a .txt, translates and stores keystrokes. Then, periodically sends the log file to an email, deletes the sent file, and starts over.

Languages and Technologies
- Java; Python; OCaml; JavaScript; HTML/CSS; Ruby; MEAN; Full-Stack;
- Visual Studio; Object-Oriented Programming; Functional Programming; AWS;
- Linux; Active Directory; Azure; Virtual Box; Windows Server 2008-2016; JIRA;
- SQL; Spark; Hadoop; Kafka; Airflow; PySpark;

Cade Uhlin

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EXPERIENCE

Communications Intern   May. 2021 – August 2021

IQVIA|Plymouth Meeting, PA (Remote)

- Applied various Python libraries (Pandas, NumPy, Selenium) to generate automated scripts for daily functions.
- Created useful automation scripts to handle the combinations of Excel files that exceed multiple gigabytes.
- Helped to develop and deploy an automated system over several platforms to assign users a new soft-phone.
- Redirected **200+** routers from a closing data center to a more permanent location.

IT Support Analyst   October 2020 – Feb. 2021

West Chester University of Pennsylvania| West Chester, PA

- Provided technical assistance and support related to computer systems, hardware, software, or networking to over 18,000 active users.
- Managed, maintained, and stored data of in-person and phone query help tickets.
- Connected with 30+ customers per day, supporting troubleshooting, providing product information, and building customer loyalty.

EDUCATION

West Chester University of Pennsylvania   August 2018 - May 2022 (Expected)

Bachelor of Science, Major in Computer Science, Minor in Mathematics

- GPA: 3.6/4.0
- Relevant Coursework: Big-Data Engineering; Database Management; Artificial Intelligence; Introduction to Cloud Computing; Data Structure & Algorithms; Software Security; Software Development
- Clubs and Activities: West Chester Men's Swimming & Diving, Computer Science Club

PROJECTS

Collaborative Music Playing App (2022) - Django, Python, Javascript

- In this project, I used Python and Javascript to create a full-stack web app. The purpose of this project was to learn how Javascript and Django worked together to develop a full-stack web application. After I finished setting up my web app I integrated it with the Spotify API to link the two together.

Lexical Analyzer (2021) – Java

- Takes the lexical structure of a program as an input and analyzes each lexeme to be parsed into the syntactical analyzer. The goal of this project was to further my understanding of the compilation process

Yelp User Review (2021) – Python, Spark, SQL

- With three datasets, one for users, restaurants, and Yelp reviews, I was able to find the most influential within the dataset based on the size of their audience and how well their reviews were received. Based on the locations of the reviews I was able to narrow down a general area of where the users were located.

Personal Website (2020) - Python, Flask, HTML&CSS

- I created a personal website to showcase my work and to explain a little about myself. I did this using the Python library Flask to handle the backend of the website and used HTML & CSS to create the front end. I created and added a database of some of my friends to understand how websites link to databases.

SKILLS

Languages: Python, SQL, Java, JavaScript, CSS, HTML, OCaml

Frameworks: Flask, Django

Tools: MS Office, Linux, Spark, Hadoop, Git

Databases: MySQL, SQLite

IDEs: Visual Studio Code, PyCharm, Eclipse, Jupyter Notebook