Team HMKG

Project : SpeedStock

Members : Mike Hutz, Mitch Moir,
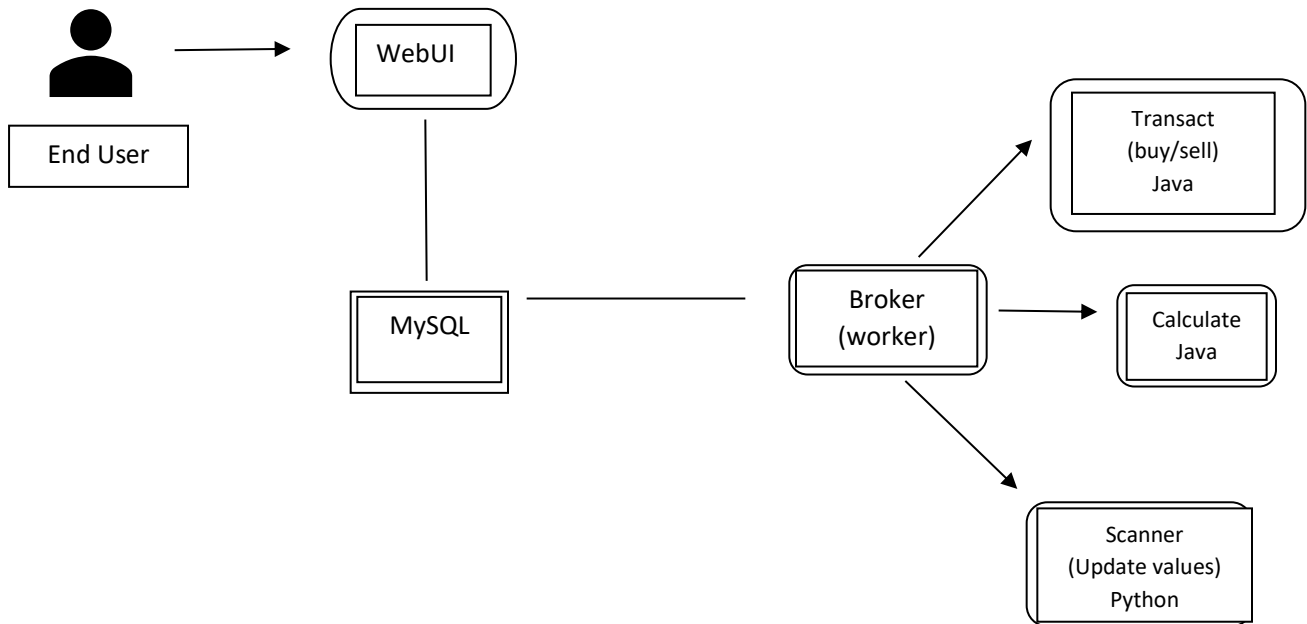Corah Krantz, and Jordan Gumby

Who is SpeedStock ?

Summary :

Our team has decided to create a web-based application called SpeedStock. SpeedStock is intended to provide a platform for customers to purchase, sell, and check on their stock portfolios. Using the cloud, we will be able to keep a safe location and record of the customers holdings and ensure integrity of the records. This cloud-based system will also allow us to update the values of each stock consistently and quickly on the backend, to ensure we provide the customer with the most up to date values of their portfolio. SpeedStock will provide customers with fast transactions, accurate information, and most of all security.

For our demo, we intend to push to utilize web scraping to provide the information needed for the most up to date stock tickers and values but may utilize a hard coded database for proof of concept. We also intend to try and create a timed execution that runs on the cloud to allow updates to happen at regular intervals. We at HMKG look forward to bringing you a polished product.

Chapter 1:

Chapter 2:

Our project SpeedStock intends to create a quick interface for customers to buy, sell, and check stocks within their portfolio. We intend to use the cloud to ensure that the most up to date information can constantly be available to the customer at their request.

We intend to host our DMS out of MySQL as opposed to Redis primarily due to familiarity of our team with integration of SQL and Python together using Pyspark. Our Broker will take on the role of Worker and will be executing 3 functions when the request is sent from the customer.

The bulk of our program will be written in Java for both the Transact and Calculate actions. Buy will be used to add specific stock tickers and quantities to a database which will contain the customers portfolio. Similarly, Sell will remove the requested stock in the amount designated from that database. The calculate is a simple program that will return a total value of portfolio. If we can get more detailed later, it will also include a calculation for growth of the portfolio.

The Scanner component will be hosted in Python and is going to be used to scan current real life stock values and update those values in the database on a regular interval. This is likely going to be the most difficult component of the project and will require the highest amount of testing and validation.

SpeedStock is still in the very early stages, and these are the basic and theoretical solutions we have for the technical requirements. We will continue to update this document as final technical specifications are decided and implemented.

Michael B. Hutz

Michael.b.hutz@gmail.com
114 Starr Road, Landenberg PA 19350
(610) 256-1588
www.linkedin.com/in/michael-hutz-wcucs/

EDUCATION:

West Chester University of Pennsylvania – West Chester, Pennsylvania
Graduation: Expected May 2022

- Bachelor of Science – Computer Science
- Computer Security Certificate
- GPA: 3.87
- Honors: Summa Cum Laude

University of Delaware – Newark, Delaware
Graduation: May 2018

Bachelor of Arts in Communications
- GPA: 3.52
- Minors: History and Advertising

Relevant University Coursework: Computer Science III, Data Structures & Algorithms, Systems & Design, Database Management, Cloud Computing, and Software Engineering

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PROFESSIONAL EXPERIENCE:

Travelers – TLDP Intern   June 2021 – August 2021
Hunt Valley, Maryland

- Leading backend development of a tool designed to search and pull XML documents from an existing database
- Designing and building troubleshooting technical documentation to assist my team in current setup processes and for future employees
- Gaining experience in a variety of technical tools such as SQL, React, Angular, node.JS, Python, AWS, and Databricks
- Assisted in teaching fellow interns in various technical areas such as Git, CLI Interfaces, and Python.
- Took part in a hackathon and assisted in developing an updated contact directory for the company.

Apple Inc. – Technical Expert   August 2019 – Present
Newark, Delaware

- Provide hardware and software support and troubleshooting for customers of iPhones, Mac computers, iPads, and other Apple devices
- Received recognition from management as an exceptional team member for Q4 of 2020
- Have consistently maintained an evaluation score of 90 out of 100 over the last 5 quarters.
- Received a promotion to Technical Expert because of teamwork, leadership, and production in the store.
- Maintained inventory of existing repairs and necessary parts to complete future repairs.

Encore Capital Group – Corp. Communications Intern   June 2017-
August 2017
San Diego, CA

- Helped to manage Internal communications of a global company over a three-month span of time
- Led an audit of company's social media and media presence to ensure compliance restrictions were being followed
- Repaired portions of the website including broken links, UI upgrades, and content flaws
- Managed social media presence through web-based applications and platforms

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PROJECTS:

Lexical Analyzer – Java
- Created a Lexical Analyzer to read a file and break the contents into readable components
- Analyzer utilized an arbitrary syntax framework to determine which symbols and patterns to read
- Utilized Linked List structure to read in and process characters from the input file

Insurance Database Search Engine – Python/SQL
- Utilizing an existing database in S3, created a web application to search for information using key search criteria and return the valid entries.
- Collaborative program written utilizing Python and Athena for the backend and Flask for the front end.
- Valid entries returned as a list view on the web application with an option to download the entry in an XML format.
- Individual contribution to the team was the lead backend designer. Developed the code to execute the database search, filter tool, and XML conversion.

Go Game – Java
- Java program utilizing Map structures to create a game board for Go, a strategy game where the goal is to surround your opponent's pieces.
- Game board automatically processes pieces and scoring locations to provide a final tally and winner of the game.
- Originally was created as a project in Data Structures lecture, shifted over into a personal project.

SKILLS
- Programming: Java, Python, React, SQL, Angular, Flask,
- Operating Systems: Windows (10,8,7), Mac OS, Linux, Powershell/Console
- Technical: Computer Hardware & Repairs, IT Servicing, Troubleshooting, Networks
- Data: SPSS Statistics
- General: Microsoft Word, Microsoft Excel, Microsoft Powerpoint

Mitchel Moir

2650 Mount Road, Aston, PA 19014
Phone: 484-802-0168
E-Mail: MM963524@wcupa.edu

Objective and Personal Statement:

I am seeking a fulltime position in the IT field where I can leverage and grow my technical skills, knowledge, and passion. I am dedicated, motivated, and persistent, having worked fulltime while taking classes and paying for my own education.

Education:

West Chester University of Pennsylvania, West Chester, PA
- **Degree:** Bachelor of Science in Computer Science (with a Certificate in Computer Security)
- **GPA:** 3.81
- **Expected Graduation Date:** May 2022

Delaware County Community College, Media, PA
- **Degree:** Associate of Science in Computer Science
- **GPA:** 3.57
- **Graduated:** December 2019

Relevant Coursework:

COMPLETED
Data Structures & Algorithms
Software Engineering
Data Communications and Networking
Security
Software Security
Computer Science I, II & III
Statistics I & II
Calculus I & II
Intro to Discrete Mathematics

IN PROGRESS
Intro to Cloud Computing
Modern Malware Analysis
Database Management Systems Computer

Work Experience:

Wolff's Apple House, Media, PA **2008-Present**
Position: Shift Manager, Heavy Equipment Operator
- Initially hired as a cashier and now a member of the management team for this local business
- Key contributor performing many functions including weekend shift manager, forklift operator, tractor operator, and commercial motor vehicle driver
- Responsible for traveling and procuring product for the business, vendor relationships
- Involved with reception, display, and inventory of seasonal product
- Significant sales/customer service experience

Technical Skills:

- **Programming Languages:** Java, C++, C, Python

- **Operating Systems:** Windows 10, Windows 7, Linux (Ubuntu)

- **Relevant Software:** GDB Debugger, Wireshark, MATLAB, Microsoft Office

- **Other Languages:** Spanish (intermediate conversational

JORDAN GUMBY
jg905807@wcupa.edu | linkedin.com/in/jordangumby
(610) 883-7569 | Royersford, PA 19468

EDUCATION

West Chester University   **West Chester, PA**
Department of Computer Science   *Anticipated Graduation: May 2022*
Bachelor of Science in Computer Science, Computer Security Certificate
Term GPA: 3.59

TECHNICAL SKILLS

Java, C#, Web Design, Amazon Web Services, Python, Microsoft Office

WORK EXPERIENCE

Cisco

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emote
Technical Sales Engineer Intern   *June 2021-August 2021*
- Developing key insights into Cisco technologies.
- Working efficiently in teams to present key initiatives to System engineers.
- Participated in Hackathon to develop a custom security solution for a mock company.
- Led a discovery meeting in a roleplay scenario.
- Worked alongside with a field team to come up with a challenge project for high school students.
- Shadowed field manager and took notes on various customer calls.

Self Employed   **Royersford, PA**
Science & Math Tutor   *August 2020 – May 2021*
- Assist students with Math assignments, mentor students on math skills needed for successful class completion.
- Utilizing creative approaches to assists students in finding solutions in an open and inclusive environment.
- Responsible for making sure student achieves learning outcomes.

YMCA   **Phoenixville, PA**
Camp Counselor   *June 2019 – August 2020*
- Planned and supervised activities associated with the assigned camps.
- Provided instruction to campers used in daily routines including wrap up activities.
- Kept the campers engaged using quick problem solving and strong collaboration skills.

RELEVANT COURSE WORK

- Computer Science I, II, III
- Data Structures and Algorithms 241
- Computer Security and Ethics 301, Malware Analysis
- Discrete Mathematics, Foundations of Computer Science
- Software Engineering

AWARDS & HONORS

Dean's List- Spring 2020, Fall 2020, Spring 2021

PROJECTS

DOE Challenge Project
- This summer I worked with the public sector state and local education-NYC. We presented a challenge project to high school students where we asked them to present to us a smart classroom using IoT devices. I helped other people on the team come up with a set of questions for the project

as a guideline for the students. I am also in WebEx spaces with the kids for them to ask any questions and to provide any feedback needed.

- Reference: Carlos Aued caued@cisco.com

INTERPERSONAL SKILLS

Teamwork, Problem Solving, Leadership, Collaboration, Effective Social Skills, Responsible, Focused

CORAH KRANTZ

570-614-9615| corah99@gmail.com | www.linkedin.com/in/corahkrantz

EDUCATION

West Chester University, West Chester, PA   **May 2022**
Bachelor of Science in Computer Science – *Security Certificate*   **GPA: 3.8/4.0**

WORK EXPERIENCE

Cisco Systems   June 2021 – Aug 2021
Technical Sales Engineering Intern – Global Enterprise Premier, Remote
- Interviewed each account team within the Premier Organization, created account specific technology heat maps and identified overall trends, presented findings to engineering leadership
- Learned about Cisco's solutions through technology trainings and shadowing opportunities
- Researched and presented concepts such as Kubernetes, Azure, and Terraform to Systems Engineers
- Developed key sales skills such as communication and active listening though simulated customer meetings

Justus Home and Garden   June 2019 – Aug 2020
Customer Service Representative, Justus, PA
- Consulted with customers to determine their needs and direct them to products or services
- Coordinated with team members from different departments to ensure timely delivery of services
- Offered flexible support to various departments to meet business demands day to day
- Maintained up to date list of all store inventory

PROJECT EXPERIENCE

Cyber Security Blog   Sept 2020 – May 2020
- Designed and maintained website using Wix, providing bi-weekly updates on cybersecurity trends
- Documented how cyber-attacks have increased with the onset of pandemic induced work from home policies
- Provided easy to read articles for my class to keep them informed on security incidents

Data Collection Research Project   Sept 2020 – Nov 2020
- Collaborated with teammates to research and present how businesses can use social media and other methods to collect data from customers and their motives behind it
- Researched data mining, cookies, and collaboration between companies and positive and negative impacts for both the business and the end user
- Group received a grade of 100% for our efforts, and educated the class on data collection

Business Plan Project   Oct 2019 – Dec 2019
- Determined a need for parking solutions due to congested student lots and brainstormed solutions with teammates
- Designed a high-level application to meet needs with teammates, acting as CTO for the duration of the project
- Presented project to peers and received a grade of 100%

INVOLVMENT & ACCOMPLISHMENTS

Varsity Sports Teams   Spring 2017 – Current
- Led Varsity Girls Track as a Team Captain for two years, encouraging a fun and respectful environment for all team members - 2 time state medalist in Pole Vault
- Current member of West Chester University Women's Track and Field team - Silver medalist in Pole Vault at 2020 PSAC Indoor Championship – Bronze medalist in Pole Vault at 2021 PSAC Outdoor Championship
- Participated in volunteer work with the track team by working other sports team events, completing tasks like running the concession stand and checking event tickets

INTERESTS & SKILLS

Interests: hiking, cooking, skiing, running, reading
Technical Skills: Java, Python, Intellij, PyCharm, Azure, Terraform, Kubernetes, Excel, Security, Malware Analysis, Cisco Packet Tracer