June 13, 2025

FanView

Cameron Pederson cameronpederson14@yahaoo.com

Tabitha Walker tabby1292@gmail.com

Carita Kennedy cmk719@msn.com

Adam Gossard adamgossard14@gmail.com

Mary Locke calleigh_butterfly80@hotmail.com

Appendix

TEAM CHARTER

Team charters define how the team members interact with each other. In other words, these are the rules of engagement for the team. For larger size teams, this document may become quite extensive in order to make sure everyone understands meeting etiquette so that the team meetings flow smoothly. Beyond the rules of a meeting, it may show delegation of authority to subject matter experts (SMEs) or group leaders who are responsible for a part of the project. Bear in mind that the project manager is ultimately responsible for the success or failure of a project. This outlines the project manager's expectations of the team members and may also include the project sponsor, the client or customer, and other stakeholders who may be impacted or have a concern with the project's deliverables.

Project Name: Fan View Project	**Project Manager:** Cameron Pederson
Team Members.	1. Adam Gossard 2. Carita Kennedy 3. Mary Locke 4. Cameron Pederson 5. Tabitha Walker
A. Commitments.	As a project team, we will: 1. Respect each other's ideas, perspectives, and contributions. 2. Commit to completing our individual responsibilities on time. 3. Maintain open and honest communication. 4. Provide constructive feedback. 5. Support one another and help resolve issues collaboratively. 6. Focus on achieving the goals and timeline of the project.
B. Team Meeting.	The participation ground rules include: 1. Attend all scheduled meetings unless prior notice is given. 2. Be punctual and prepared. 3. Actively participate in discussions and decisions.

	The communication ground rules include: 1. Use respectful and inclusive language.
	2. Keep all relevant team members informed. 3. Utilize email and a shared project platform for updates.
	The problem-solving ground rules include: 1. Define the problem clearly before offering solutions. 2. Encourage input from all members. 3. Base decisions on data, facts, and consensus.
	The decision-making ground rules include: 1. Strive for consensus where possible. 2. If consensus cannot be reached, defer to the Project Manager's decision.
	The conflict-handling ground rules include: 1. Focus on the issue, not the individual. 2. Use a mediator (e.g., Project Manager) when necessary.
C. Meeting Guidelines.	1. Meetings will be held two times weekly. Once with client, and once with our Capella team. 2. Meetings will be called by Cameron Pederson. 3. Agendas will be issued 24 hours in advance by Cameron Pederson 4. Meetings will be facilitated by Cameron Pederson, and if Cameron is unavailable, they will be facilitated by Tabitha. 5. Evaluations of meetings will be conducted every 2 meetings. 6. Tabitha will issue meeting overview notes within two days of the meeting, if she is unavailable, then Adam will be responsible for issuing notes.

D. Meeting Procedures.	1. Each meeting begins with a review of the agenda and previous action items. 2. Discussions will be time-boxed to maintain focus. 3. Key decisions and action items will be documented and assigned. 4. Meeting notes will be shared via the team's Discord. 5. A rotating team member (excluding the Project Manager) may be assigned as timekeeper.	
E. Team Member Roles or Responsibilities	**Team Member Name**	**Role or Responsibility**
	Adam Gossard	Database Engineer
	Carita Kennedy	Database Planner
	Mary Locke	Data Analyst
	Cameron Pederson	Project Manager
	Tabitha Walker	Database Designer

Team Member Signatures:

Cameron Pederson

Project Manager: Cameron Pederson

Adam Gossard

[Database Engineer: Adam Gossard]

Carita Kennedy

[Database Planner: Carita Kennedy]

Mary Locke

[Data Analyst: Mary Locke]

Tabitha Walker

[**Database Designer**: Tabitha Walker]

Project Plan

Project Objectives: This initiative focuses on designing and implementing an automated data ingestion and integration solution for the client, FanView Athletics, to streamline the import of sports performance data from external partners into the client's Wix-based CMS. Our team will deliver a dynamically scalable, content-driven framework that processes CSV files and applies a reusable data structure adaptable across multiple sports, ensuring alignment with the client's internal data requirements. Final deliverables will include system documentation, data mapping, user instructions, and a proposed automation strategy leveraging AWS to support future scalability and historical data preservation.

Approach: To meet the above objectives, the team will follow a phased approach:

- **Requirements Gathering** – To achieve the project objectives, the development team will execute a phased implementation plan aligned with FanView Athletics' operational needs and technical constraints. This approach includes structured stakeholder engagement, iterative system design, and agile development cycles to ensure timely delivery and scalable solutions. The team will collaborate closely with stakeholders from FanView, Breakaway, and Grind Geek through weekly Zoom sessions. These meetings will be used to define key data fields, understand CMS integration

constraints, and clarify automation needs. Internal team sync-ups will immediately follow client meetings to review action items and refine project direction. A special focus will be placed on the structure of incoming CSV data and system compatibility requirements.

- **Design Phase** – During the design phase, the team will architect a modular ingestion framework capable of supporting multi-sport data structures. Entity Relationship (ER) diagrams and flowcharts will be developed to visualize the database schema and integration pipeline. Python, combined with NumPy, will be used to create scripts that parse and process raw CSV data for ingestion into SQL Server. This structured data will be dynamically pushed to FanView's Wix platform using Wix Data and Collections, or Wix Corvid and JavaScript as a fallback for real-time display.
- **Development** – The system will be built using SQL Server to manage structured data and support data entry, querying, and analytics. Python-based scripts will be developed to transform CSV inputs or server-fed data into a format suitable for the Wix CMS. If direct API access is unavailable, server-side scripting and inline JavaScript (via Wix Corvid) will simulate real-time integration. The front end will utilize dynamic elements, such as Repeaters, to display player statistics and historical records directly on the client's website.
- **Testing** – Testing will include unit, integration, and user acceptance phases to ensure data integrity, ingestion accuracy, and front-end synchronization. The team will validate the performance of Python and NumPy scripts in processing and uploading structured data, as well as ensure Wix Data reliably reflects updates in near real-time. The system will also be evaluated under live data conditions to verify functionality and responsiveness.

- **Deployment** – Deployment will involve executing the end-to-end ingestion pipeline using real data from Breakaway and Grind Geek to verify operational readiness. The system will be stress tested under real-time conditions and monitored for data consistency within FanView's Wix CMS. Any necessary adjustments will be made prior to final delivery to ensure full compatibility and stability.
- **Training and Handover** - Upon project completion, the team will deliver all relevant documentation, including source code, data mapping guides, and user instructions. Recorded meetings, including Zoom and Discord sessions, will be provided for future reference. Credentials and access information for all integrated systems will be securely transferred to the client. A final walkthrough and Q&A session will be held with the client to ensure full understanding and readiness for independent system operation.

SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats)

Critical Success Factors: Clear communication with stakeholders, thorough requirement analysis, and iterative testing.

- **Strengths:** Skilled team with experience in database development, strong project leadership, well-defined project timeline, FanView currently using Wix.
- **Weaknesses:** Limited experience with advanced sports analytics, potential gaps in real-time data integration.
- **Opportunities:** Demand for advanced player analytics in sports, potential for scaling into mobile/web applications, taking large amounts of data and transferring into their database, to have all sports captured in the database, Breakaway assimilated to go automatic.

- **Threats:** Competing solutions in the market, possible changes in client priorities or data compliance policies, keeping data secure from outside threats.

Known Project Risks, Constraints, and Assumptions

- **Risks:** Incomplete or changing requirements. Potential data migration issues from legacy systems
- **Constraints:** Limited access to live data sources during development. Strict project deadlines and resource availability.
- **Assumptions:** Stakeholders will be available for review and feedback. Project will be delivered within the scope agreed upon.

Project Scope

This project focuses on designing and implementing an automated data ingestion and integration solution for FanView Athletics. The goal is to streamline the import of sports performance data from external partners into FanView's Wix-based Content Management System (CMS). Our Capella University team will develop a dynamically scalable, content-driven framework that efficiently processes CSV files and applies a reusable data structure adaptable across multiple sports disciplines, ensuring alignment with the client's internal data requirements.

The scope of this project includes the development of a data collection framework, database design, and integration processes; research into industry best practices for data ingestion; detailed documentation; and preparation of user training materials. These components are intended to support long-term usability and provide the foundation for future scalability using AWS services.

Items explicitly out of scope for this initiative include mobile or full web application development, advanced predictive analytics, data visualization or dashboard creation, live integrations with wearable devices, a full production system launch, ongoing maintenance responsibilities, and legal compliance review. These elements are considered outside the capstone's timeframe and resource limits but may be recommended for future development.

Project Overview

Fan View is working with Breakaway Data and Grind Greek Training to develop a sports data application that consolidates athlete performance data from four summer combines, including speed and agility metrics from San Diego, into a central database.

Students will assist in refining data collection methods, structuring the database, and exploring analytics and visualization options. Deliverables include recommending best practices for data collection and integration, developing a data management framework for the combines, creating visualization concepts to support athlete and trainer insights, and identifying potential data privacy and security concerns.

Project Scope

The scope of this project includes and excludes the following items:

In scope:

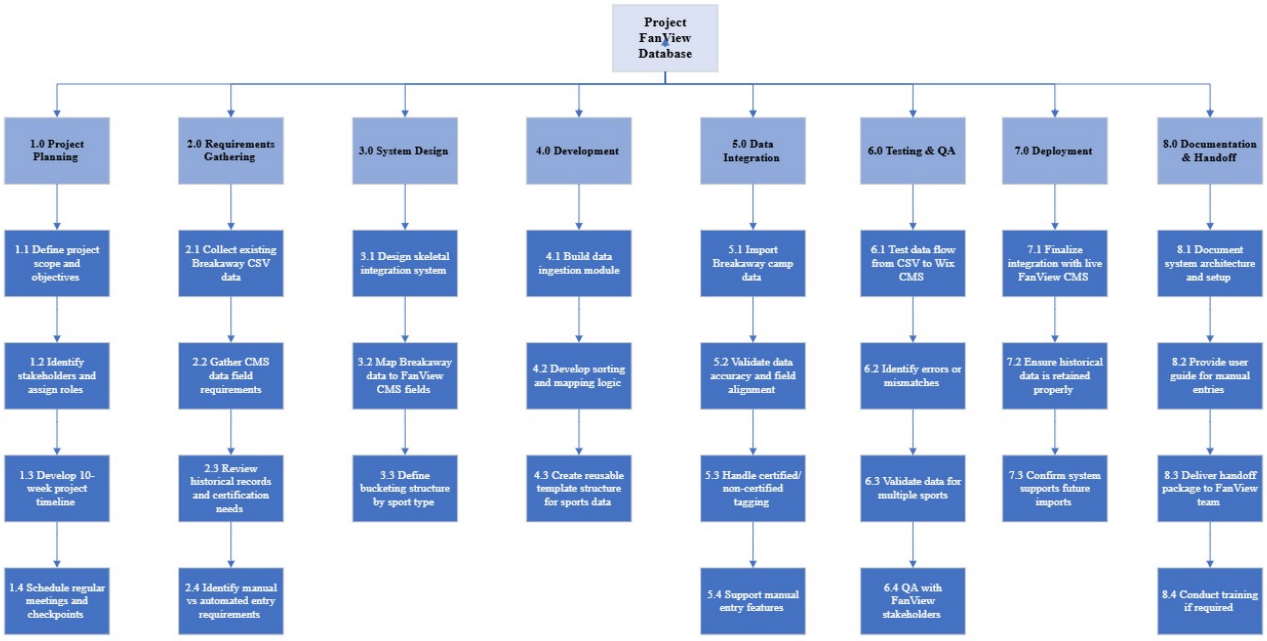
- Data Collection Framework
- Database Development
- Data Integration
- Best Practices Research
- Documentation
- Training

Out of scope:

- Mobile App or Full Web App Development

- Advanced Predictive Analytics
- Analytics & Visualization
- Live Integration with Wearables or Sensors
- Full Production Launch
- Ongoing Maintenance
- Legal Compliance Review

Work Breakdown Structure (WBS)



1.0 Project Planning

1.1 Define project scope and objectives

1.2 Identify stakeholders and assign roles

1.3 Develop 10-week project timeline

1.4 Schedule regular meetings and checkpoints

2.0 Requirements Gathering

2.1 Collect existing Breakaway CSV data

2.2 Gather CMS data field requirements

2.3 Review historical records and certification needs

2.4 Identify manual vs automated entry requirements

3.0 System Design

3.1 Design skeletal integration system

3.2 Map Breakaway data to FanView CMS fields

3.3 Define bucketing structure by sport type

4.0 Development

4.1 Build data ingestion module (CSV to Wix CMS)

4.2 Develop sorting and mapping logic

4.3 Create reusable template structure for sports data

5.0 Data Integration

5.1 Import Breakaway camp data

5.2 Validate data accuracy and field alignment

5.3 Handle certified/non-certified tagging

5.4 Support manual entry features

6.0 Testing & QA

6.1 Test data flow from CSV to Wix CMS

6.2 Identify errors or mismatches

6.3 Validate data for multiple sports (Football, Basketball, etc.)

6.4 Q A with FanView stakeholders

7.0 Deployment

7.1 Finalize integration with live FanView CMS

7.2 Ensure historical data is retained properly

7.3 Confirm system supports future imports

8.0 Documentation & Handoff

8.1 Document system architecture and setup

8.2 Provide user guide for manual entries

8.3 Deliver handoff package to FanView team

8.4 Conduct training if required

Communications Matrix

Information	Provider	Recipient(s)	Frequency	Medium	Location
Status Report	PM	Sponsor	Weekly	Video Call	Zoom
Tech Meeting	PM	Techs	Weekly	Voice Call	Discord

Glossary

AWS – Amazon Web Services

CSV – Comma-Separated Values

DB – Database

ERD – Entity-Relationship Diagram

SQL – Structured Query Language

WBS – Work Breakdown Structure

Project Schedule:

Week 1: Requirements Gathering

Week 2-3: Database Design

Week 4-6: Development

Week 7: Testing

Week 8: Revisions based on feedback

Week 9: Deployment

Week 10: Training and Closeout

Project Quality Plan

Introduction:

Plan Quality Management Processes:

Inputs: Client Requirements

Tools and Techniques: ER Modeling Tools

Outputs: Quality Metrics and Requirements Document

Perform Quality Assurance:

Inputs: Project Deliverables

Tools and Techniques: Code Reviews

Outputs: QA Reports and Improvement Plans

Control Quality:

Inputs: Completed Code and Reports

Tools and Techniques: Testing Scripts

Outputs: Defect Logs and Test Results Documentation

Roles and Responsibilities

Cameron Pederson: Project Manager

The project manager's main responsibility is ensuring smooth coordination between the client and the team. They often act as a liaison, particularly when no formal client representative exists, bridging communication between the development team and the stakeholders. As the team's planner, they define the project's scope, goals, and objectives. They also create a detailed plan covering timelines, budgets, and resource allocation. Project managers lead their teams by resolving conflicts and fostering collaboration to work cohesively. They anticipate and manage risks by developing strategies to address potential challenges that arise during the project's life cycle. Additionally, they serve as the central point of contact (POC) for stakeholders, clients, and team members, providing regular updates on project progress and addressing any issues. Resource allocation is another critical aspect of their role, enabling them to balance efficiency and cost-effectiveness, though budget overruns may still occur. They also emphasize quality control by ensuring deliverables meet or exceed client expectations through continuous reviews and necessary improvements. Finally, they document and monitor team performance, ensuring tasks are completed effectively with the appropriate tools.

Adam Gossard: Database Engineer

A Database Engineer is a multifaceted professional who takes on diverse responsibilities depending on the project. They are exceptional problem solvers, with a knack for analyzing issues and thinking creatively to devise effective solutions. This adaptability allows them to design systems, components, and processes that often need to meet stringent requirements. Their technical expertise lies in applying scientific and mathematical principles to projects, while staying current with the latest technologies and practices to ensure relevance and efficiency.

Database Engineers oversee testing, implementation, and installation processes to verify that systems are functioning properly and free of errors. They transform concepts into functional systems and products, prioritizing safety and quality standards. Collaboration is a key strength, enabling them to work seamlessly with teams, clients, and stakeholders to accomplish goals. Their ability to simplify and communicate complex technical concepts ensures clarity for nontechnical audiences. They also maintain detailed records, including technical specifications and reports, providing valuable insights for decision-making. Dedicated to continuous improvement, they monitor systems and processes, identifying opportunities to enhance efficiency and offering strategic recommendations to refine team performance.

Carita Kennedy: Database Planner

The database planner serves as the strategist for the team, developing long-term strategies and setting goals aligned with the project's objectives. By analyzing data and trends, they craft actionable plans to guide progress. Their responsibilities include designing schedules and timelines for projects and operations, ensuring that tasks and resources are properly aligned to meet deadlines. They identify essential resources—such as manpower, materials, finances, and hardware—necessary for the project's success.

Database planners monitor team progress and adjust plans to address unexpected challenges or changes, such as budget constraints or the fulfillment of requirements. They aim to optimize resource utilization to minimize waste while collaborating closely with stakeholders to maintain alignment with overarching goals. Their communication skills are key in keeping the team informed, sharing updates and progress to ensure everyone is synchronized. By tracking performance and ensuring timely completion of tasks, they pave the way for successful project delivery. Finally, they prepare comprehensive reports that highlight areas for improvement, promoting continuous growth and refinement.

Mary Locke: Data Analyst

A data analyst gathers data from various sources, ensuring its relevance, accuracy, and reliability. They organize and maintain datasets while identifying and eliminating redundancies. Using statistical tools and techniques, they analyze this data to uncover trends, patterns, and hidden insights that support decision-making processes. Their problem-solving skills allow them to address business and operational challenges, providing data-driven solutions that enhance team performance and efficiency. In addition to their analysis, data analysts create clear, concise reports and visuals—such as dashboards and presentations—to communicate findings effectively. They collaborate closely with teams, stakeholders, and decision-makers to ensure their insights align with project goals, offering actionable recommendations based on the data. They also monitor the outcomes of implemented strategies, assessing their effectiveness and suggesting improved approaches to maximize efficiency.

Tabitha Walker: Database Designer

A Database Designer collaborates with stakeholders to understand the data and system requirements, analyzing workflows, data sources, and user patterns to create databases that meet

project objectives. They develop both logical and physical database designs, including tables, schemas, and their relationships. By normalizing data structures, eliminating redundancies, and optimizing storage, they ensure efficiency. They also create entity-relationship (ER) diagrams to visually represent data relationships and define primary keys, foreign keys, and indexing strategies.

These designers focus on creating high-performing, scalable databases while optimizing query performance. Data security is a priority, and they implement measures such as encryption and access controls to protect information. They also ensure compliance with regulations like GDPR and HIPAA. Documentation is a key part of their role, as they provide detailed schemas, data dictionaries, and guidelines for maintenance and updates. Database Designers work closely with software developers, analysts, and system administrators to integrate databases with applications. Before deployment, they test databases thoroughly to confirm all requirements are met, identifying and resolving any issues to guarantee a smooth rollout.

Team Project Takeaways

Kennedy's Project Thoughts and takeaways

One of my biggest challenges throughout this project was client communication. There were moments when I needed to explain database concepts to a client, and the sheer pressure made my heart race—I had never been that nervous before. However, this experience taught me valuable lessons about managing anxiety and improving my communication skills. Before the meeting, I researched breathing techniques and started using them. The count-to-four method and pacing my speech helped me sound more confident and avoid rambling. Another simple trick—rubbing between my thumb and pointer finger—worked surprisingly well by shifting my brain's focus, much like chewing gum does. Additionally, I learned how crucial team dynamics are for my comfort in group settings. I tend to shut down in unfamiliar environments, but my team's supportive energy made introductions effortless from day one. The collaboration felt natural, and working with them reinforced the idea that a strong team can bring out the best in individual contributors. Overall, this project was a personal and professional growth moment. I now feel

more prepared to engage with clients, handle high-pressure discussions, and thrive in team environments—all skills that will serve me well going forward.

Adam's Thoughts and takeaways

This capstone project taught me more than just technical implementation. It required me to think about how data actually flows in a real business environment and how to adjust when a client has evolving priorities. I played the role of Database Engineer, building ingestion pipelines, writing the core Python FastAPI logic, and coordinating with Tabitha and Carita to ensure our SQL structure matched the frontend needs of the CMS.

One of our biggest wins was building a reusable ingestion framework that dynamically routes sports data to the correct SQL table and validates headers before ingestion. We were also able to work around limitations in Wix by using automation tools like Zapier and Google Sheets as a middleware bridge. I had to learn how to make complex technical processes usable for nontechnical team members, which pushed my communication skills as much as my coding skills.

What I learned in this project will absolutely carry into the next course and beyond. For example, I now understand how to deploy a scalable backend service in the cloud, how to structure team communication around agile workflows, and how to prioritize client handoff documentation so that a system can run independently even after we step away.

In terms of competencies:

- Solve loosely defined problems: Yes—the Grind Geek data wasn't always clean or labeled clearly, and we had to create logic to bucket and map it accurately.

- Understand ethical/legal issues: We discussed data privacy risks and anonymized any sensitive data in test uploads.

- Create effective IT solutions: The ingestion pipeline, FastAPI service, and CSV validation checks were all client-usable.

- Manage client expectations: We coordinated scope changes mid-sprint and updated documentation accordingly.

- Communicate effectively: Weekly Discord syncs and project handoffs were streamlined and consistent.

I'd like to develop deeper skills in frontend integrations and API security next. I also want to keep improving my documentation so it can stand alone, especially for clients without technical backgrounds.

Cameron's Thoughts and Takeaways

Our capstone project with FanView Athletics was a success and a great learning experience. As a team, we developed a data ingestion and integration system that allowed

athlete's performance data to be imported from CSV files to a Microsoft database system. One of the components that was the most interesting was client communication. Our client was a super intelligent individual and was in the beginning stages of building this company. This was nice, because nothing had been set up yet, but it was also a large inconvience because nothing had been set up yet. We were at least able to offer recommendations as well as teach FanView about the functionality of databases.

I'm especially grateful for the dedication and collaboration of my teammates! Everyone brought unique strengths to the table, and working alongside such a committed group made the experience exceed my expectations in every way.

Tabitha's Thoughts and Takeaways

Working on the FanView Athletics project was both a rewarding and eye-opening experience. In my role as Database Designer, I was responsible for crafting a database structure that supported both the client's requirements and our custom ingestion process. This involved designing ER diagrams, and optimizing data through normalization.

We faced a number of challenges—especially with the inconsistency of the raw data we received. Preparing that data for integration while staying aligned with the client's expectations took additional coordination across our team. Adapting to unfamiliar tools and navigating the lack of a robust API also required extra time and creative problem-solving.

Overall, this project strengthened my understanding of agile collaboration, technical flexibility, and stakeholder-focused delivery. I'm proud of what we achieved as a team and grateful for the opportunity to grow my skills in a real-world setting. The lessons I've learned here—especially around communication, data structure, and adaptive design—will continue to guide me in future professional and technical endeavors.