Arizona Technology Council Data Integration & Insights

Fall 2025
FSE 104 / Wednesday 4:35 pm

Team Members:

Vincent Song, Aliya Khan, Sai Rithwik Kukunuri, Shlok Vinayak Narvekar

Instructors:

Jared Schoepf – Fall 2025

Academic Associates:

Mike Amato – Fall 2025

Community Partner:

Arizona Technology Council - Fall 2025

Content

Summary of the Project

This project is a collaboration between students in the EPICS program and the Arizona Technology Council. The EPICS team is called "Arizona Technology Council Data Integration & Insights."

Currently we are looking into a solution that merges / connects data about company, user, employee information such as emails and locations.

Their issue or problem is they need a way to extract / coordinate their data between the multiple data sets that contain key information about different technology-based companies under their subscription.

Section 1: Project Identification

1.1 Description of the Community Partner

Our community partner is Arizona Technology Council. The goal of Arizona Technology Council is to create a sense of belonging for all our employees and member organizations. The organization's mission is to empower innovators and connect the Arizona technology industry by advocating for pro-technology legislation, providing educational events and resources, fostering a thriving startup ecosystem, and working to transform Arizona into a globally recognized technology hub.

The key people involved in this organization are:
- Steve Zylstra, CEO

- Leslie Marquez, Head of Marketing [Point of Contact]

Steve   **Zylstra**
President & CEO – Arizona Technology Council

Steve Zylstra has led the Arizona Technology Council for over 15 years, helping grow one of the nation's top tech ecosystems. Originally from Michigan, he studied Automotive Engineering and began his career at Ford. Before Arizona, he led the Pittsburgh Technology Council.

He believes Arizona is the perfect place for tech because of its talent, quality of life, and business climate. Outside of work, Steve enjoys gardening, riding his Harley, driving his Corvette, golfing, and traveling to places like Italy, Egypt, and China.

Leslie   **Cooper**   **Marquez**
Director of Marketing & Communications – Arizona Technology Council

Leslie leads the Council's marketing and communications, bringing over 17 years of experience in marketing, public relations, and advertising. She has worked in diverse industries, including technology, performing arts, and non-profits. Before joining the Council, she was Marketing Director at *focusIT, Inc.* and *Ballet Arizona*.

Active in the community, Leslie supports the Junior League of Phoenix, the Distinguished Young Women of Arizona scholarship program, and is a graduate of Valley Leadership Accelerate. She is passionate about technology, building communities, and helping grow Arizona's innovation ecosystem.

1.2 Needs Assessment

Current State of Our Community Partner

Currently, our community partner is struggling with transferring data between their two separate databases in an efficient way that would better serve their communities.

Desired Outcomes

Arizona Technology Council would like to connect their databases to streamline communication with their partners.

Gap Between Desired Outcomes and the Current State

Currently, employees must spend time taking information from one database and manually connecting it to the other for that information to be useful.

Forces, Limits, Conditions, Factors

Due to being a nonprofit, they are unable to afford more expensive alternatives which would have solved their problem sooner.

Summary of Interviews

Initial Interview Summary:

- During the meeting, the Arizona Technology Council outlined its current operational state, serving 750 member companies with data managed in a CRM called MemberZone and communications handled through a marketing platform, Keap. The central problem discussed was the disconnect between these two platforms, which requires a tedious, manual process to use member data for targeted marketing, leading to an underutilization of valuable information. The discussion moved toward finding a potential solution, likely a software or web application, that could automate the

extraction and synthesis of data between the two systems. This solution must adhere to a budget of approximately $2,500 per year and ensure the integrity of the primary member data in MemberZone.

1.3 Stakeholders

#	Stakeholder	Description
1	Arizona Technology Council (ATC)	Organization that gathers the most up to date news and data about breakthroughs and advancements within the state of Arizona, holds something to a similar newsletter.
2	Employees in ATC	Those that work within the company of ATC, they help gather information, host events and advocate for pro-technology public policy while offering resources to those that are their customers.
3	Tech Companies under Subscription	Variety of technological based companies located in and closely related to the state of AZ, that may be interested in events hosted by ATC and would like to continue to look for networking opportunities through ATC
4	Individual Users under the ATC Subscription	Individuals that have a strong curiosity or connection to anything related to the technological fields of Arizona, they can be anyone from scientist, engineers, or those that just want to learn and experience more.

1.4 Project Objective

The objective of our EPICS project is to merge their databases. This fits within the mission of the community partner and our team because it will help to streamline their data transfer and improve communication with their members.

1.5 Problem Statement

Arizona Technology Council needs to streamline data transfer to ensure reaching out to their members occurs within a timely manner and helps them to the best of their abilities because they want to empower innovators and connect the Arizona technology industry by advocating

for pro-technology legislation, providing educational events and resources, fostering a thriving startup ecosystem, and working to transform Arizona into a globally recognized technology hub. Currently, the Arizona Technology council has has a problem transferring the data from the memberZone to Kemp. This results in inefficiencies and miscommunication between the two websites. This hinders the ability of the Arizona technology council to accurately send email to the intended members.

1.6 Project Scope and Constraints

Project Results

By the end of Fall 2025, we will have a prototype of a data merging tool. By the end of this project, we will have a fully functioning data merging tool. We will deliver the following to our community partner:

- Apache Hop workflow for data transfer and automation
- Prototype of our project which connects the websites MemberZone and Keap
- The source code of the project

Functionality

The in-scope functionality that should be a part of the project at this time includes:

- Securely transfer the data collected from the MemberZone to kemp.
- The website which acts as a bridge between the MemberZone and kemp.
- Has error handling for scenarios where data transfer fails.

The out-of-scope functionality that should be excluded as part of the project at this time includes:

- Modification to the internal systems of MemberZone and Kemp
- Integrating our project to any third email like Microsoft 365
- Advanced Data analysis on building charts and graphs on email performance, click rate and user's engagement

Assumptions

Our team made the following assumptions based on our interview with our community partner:

- The community partner will provide us with the dataset required to complete the project
- The UI of our project should be user-friendly as not every user has a technical background

- Apache Hop is an approved and suitable tool for the deployment

---

Community Partner's Budget (Hypothetical)

If our community partner were to spend money on this solution, they would spend $2,500. As of current, they have not spent any money towards solving this problem.

1.7 User Need List

Need #	Stakeholder	User Need
1	Arizona Technology Council	Needs to be affordable
2	Arizona Technology Council	Needs to be customizable to the needs of the company
3	Arizona Technology Council	Needs to have quick processing / Efficient
4	IT / Security Team & End Users	Needs to be secure
5	Community Partner: Leslie Cooper Marquez	Needs to be user-friendly

1.8 Expected Overall Project Timeline (Gantt Chart)

Project Start Date: Fall 2025
Original Target Delivery Date: Spring 2027

Timeline for Completion

The timeline for completion for the entire project is to deliver to our community partner by the end of the Spring 2027 semester. Please see Section 6 for an expanded version of our current semester timeline.

Major Milestones

Major Milestone	Completed / To Be Completed By
Project planning and initial meetings	Fall 2025
Web app prototype development	Spring 2026
Data integration testing	Fall 2026
Final delivery and presentation	Spring 2027

Workload Distribution of Current Semester

Team Member	Current Role

Sai Rithwik Kukunuri	Project Lead / Full-Stack Developer
Aliya Khan	Documentation and logistics
Fernando Juarez	Design and Documentation Lead
Vincent Song	Research and Prototype Lead
Shlok Vinayak Narvekar	Frontend Development Support
Kavish Shah	Backend Development Support

Please see Appendix A for the workload distribution record from past contributions.

Gantt Chart

Current Semester:

FALL 2025 - Gantt Chart

Full Project:

Full Project - Gantt Chart

1.9 Social Context / PESTLE

	What issues do you need to consider?	What barriers may you need to address?	How will you overcome these issues?
Political	Confidentiality, tariffs, restrictions on certain technological resources.	Privacy regulations on data security, changes in some policies	Keep up with policy changes, and be up to date and keep updating the sponsors
Economic	Funding for necessary data analysis platforms and API	Inflation, cutting down of funding	Look for efficient ways of storing data, and try to cost cut wherever possible
Social	Ensuring privacy and non-maleficence	Protecting our data or the app that we work on to prevent data leaks	Have the data is a password protected file so that nobody without the password can access it

Technological	Their devices, servers or data may be incompatible with our solution.	Changes in technology, high costs of adapting to the new technology	Be up to date with new technology, make our product compatible with all devices to also foster inclusion
Legal	Privacy issues, rules or laws against using certain solutions or misuse of data	Compliance with evolving state, federal, and international laws.	Ensure best practices in cybersecurity and regularly update compliance frameworks for members.
Environmental	Sustainability, energy and resource consumption	High carbon footprint of data centers	Support green tech initiatives.

Section 2: Specification Development

2.1 Description of the Use Context

Environmental Conditions

The environmental conditions that the project can be exposed to are:

- N/A

Due to this, the project will not have any durability issues due to weather, wear and tear and other usage as it is a digital based solution rather than a physical / built one.

Project Use

The intended use of this project is to make data transfer seamless between two platforms. However, it could potentially be misused by storing personal data of many members on a third-party site.

Systems Interfacing with the Project

One system that the project will interface with is the Internal Company Database itself. The requirements of the system are the following:

- Secure API access
- Data mapping compatibility
- Scheduled or on-demand syncing

Another system that the project will interface with is Marketing Platform. The requirements of the system are the following:
- Complying with User Agreement and privacy
- Correct / Incorrect Data Format
- User Tracking for events

Limitations of the Project

The limitations of the space the project will reside in for use and storage, with special consideration towards physical size, storage space, servers, ADA, and other standards, are:
- Free / Nonpaid for resources that may be needed to keep it running or in order to work on it.
- Limited time / resource investment, especially in Maintenace or improving upon the present system
- Difficult Cooperation between EPICS Team / ATC employees.

Maintenance of the Project

After the project is delivered, the **Arizona Technology Council** will be responsible for maintaining it.

- **If there is a Bug:** The Arizona Technology Council will fix any problems in the code using the documentation we provide.
- **Long-Term Support (5 Years from Now)**: In five years, the Council will still be responsible for keeping the project running. If major changes or upgrades are needed, they can work with a new EPICS team, hire outside developers, or use their own staff.

To make this easier:

- We will provide training, so people know how to manage the site/application.
- Access will be limited to the right people.
- All documents and instructions needed to understand and update the project will be given at delivery.

Social / Societal Factors

Social and societal factors that may affect the project are:
- Privacy Issues for individuals and companies
- Ethical Usage of Data
- Transparency of Data usage and collection

These are also detailed in the PESTLE analysis above in Section 1.9.

Technological Limitations

Technological factors that may affect the project are:

- System Compatibility issues
- Scalability of the system, whether it can be worked on in order to reduce load times with increased user base
- Security or Data Protection

These are also detailed in the PESTLE analysis above in Section 1.9.

Other Potential Factors

Other factors that may affect the project are:

- Third party data / usage may affect privacy
- Organization change / resistance in ATC (May not accept solution at all)
- Potential Human error, if not built with ease of access in mind

These are important factors to consider in this context because they can affect the total usage, continuation and whether the ATC continues to use this solution after they receive it.

2.2 Design Requirement List

Need #	User Need	Spec #	Design Requirement
1	Affordable	1.1	Must cost less than $2500 per year
2	Customizable	1.2	Must have multiple formats available for font sizes, font types, and background color to allow users to create their desired setting.
3	Quick processing / Efficient	1.3	Must transfer data within 10 seconds
4	Secure	1.4	Must include a firewall or other source of protection to keep data secure
5	User-friendly	1.5	Must take less than 5 clicks to get desire result / information

2.3 Similar Stakeholders

Similar Stakeholder	Problem	Experience	Design Requirements	What Solution Do They Use?

Leslie Marquez	Inefficiency/ High workload	Needing to spend unnecessary amounts of time to manually transfer large data packets	Faster operating times	Manual Transfer

2.4 Benchmarking and Competitive Analysis Table

Benchmarking and Competitive Analysis Table

Feature	<<INSERT PRODUCT A NAME>>	<<INSERT PRODUCT B NAME>>	<<INSERT PRODUCT C NAME>>	<<INSERT PRODUCT D NAME>>
<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>

Community Partner Feedback

We showed the above completed table to our community partner and obtained the following feedback from them.

- The components of the ideas they liked are:
    - <<INSERT>>
    - <<INSERT>>
    - <<INSERT>>

- The components of the ideas they disliked are:
    - <<INSERT>>
    - <<INSERT>>
    - <<INSERT>>

- The components of the ideas that would work to help solve their problem are:
    - <<INSERT>>
    - <<INSERT>>
    - <<INSERT>>

- The components of the ideas that would not work to help solve their problem are:
    - <<INSERT>>
    - <<INSERT>>
    - <<INSERT>>

- One key area our team can focus on to improve an existing solution is:
    - <<INSERT>>

- Ideas we could combine, add to, or further develop int our final solution are:
    - <<INSERT>>
    - <<INSERT>>
    - <<INSERT>>

Section 3: Conceptual Design

3.1 Proof of Brainstorming

Brainstormed Idea #1 (<<SEMESETER (i.e., Fall 2024)>>)

Method Used to Generate Ideas	
Number of Concepts Generated	
Viable Concepts Ideated	
Documentation of the Ideas Developed (i.e., sketches, bulleted list of solutions, etc.)	

Brainstormed Idea #2 (<<SEMESETER (i.e., Fall 2024)>>)

Method Used to Generate Ideas	
Number of Concepts Generated	
Viable Concepts Ideated	
Documentation of the Ideas Developed (i.e., sketches, bulleted list of solutions, etc.)	
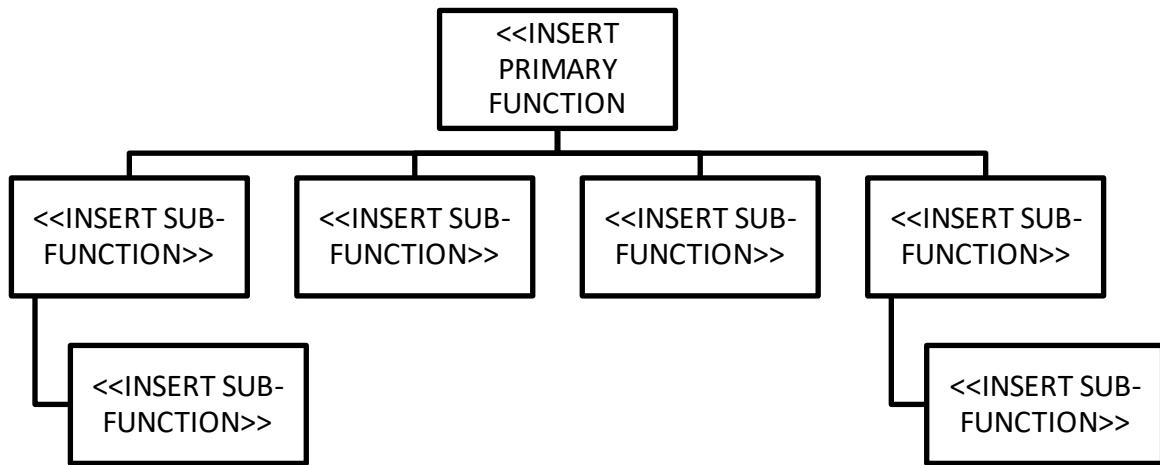
Brainstormed Idea #3 (<<SEMESETER (i.e., Fall 2024)>>)

Method Used to Generate Ideas	
Number of Concepts Generated	
Viable Concepts Ideated	
Documentation of the Ideas Developed (i.e., sketches, bulleted list of solutions, etc.)	

Brainstormed Idea #4 (<<SEMESETER (i.e., Fall 2024)>>)

Method Used to Generate Ideas	
Number of Concepts Generated	
Viable Concepts Ideated	
Documentation of the Ideas Developed (i.e., sketches, bulleted list of solutions, etc.)	

3.2 Functional Decomposition

```
                        ┌─────────────────┐
                        │  <<INSERT       │
                        │  PRIMARY        │
                        │  FUNCTION       │
                        └─────────────────┘
```

| <<INSERT SUB-FUNCTION>> | <<INSERT SUB-FUNCTION>> | <<INSERT SUB-FUNCTION>> | <<INSERT SUB-FUNCTION>> |

| <<INSERT SUB-FUNCTION>> | | | <<INSERT SUB-FUNCTION>> |

3.3 Decision Matrix

Decision Matrix - <<INSERT SEMESETER (i.e., Fall 2025)>>

<<WHAT ARE YOU EVALUATING>>		<<OPTION 1>>		<<OPTION 2>>		<<OPTION 3>>	
Criteria	Weight	Score	Total	Score	Total	Score	Total
<<CRITERIA 1>>							
<<CRITERIA 2>>							
<<CRITERIA 3>>							
<<CRITERIA 4>>							
<<CRITERIA 5>>							
Total							

Criteria Weight - <<INSERT SEMESETER (i.e., Fall 2025)>>

<<INSERT EXPLANATION FOR EACH CRITERIA ABOVE>>

<<i.e., Durability is evaluated on a scale of 1-10 related to tensile strength, 10 is 1,000 mpa and 1 is 5 mpa.>>

Product Evaluation Score - <<INSERT SEMESTER (i.e., Fall 2025)>>

<<WHAT ARE YOU EVALUATING>>	<<OPTION 1>>	<<OPTION 2>>	<<OPTION 3>>
Criteria			
<<CRITERIA 1>>			
<<CRITERIA 2>>			
<<CRITERIA 3>>			
<<CRITERIA 4>>			
<<CRITERIA 5>>			

3.4 Final Proposed Solution

This section should include a complete description of the proposed design concept, including sketches, process diagrams, or other artifacts to convey the concept. Consider whether this solution may be patentable. This solution should be approved by the advisor and partner before proceeding to testing and detailed design.

Complete Description of Proposed Design Concept

<<INSERT>>

Artifacts to Convey the Project

<<INSERT SKETCHES, PROCESS DIAGRAMS, OTHER>>

Patentability

<<INSERT>>

Approval from the Advisor Before Proceeding to Testing

_____   _____

Signature   **Date**

Approval from the Community Partner Before Proceeding to Testing

_____   _____
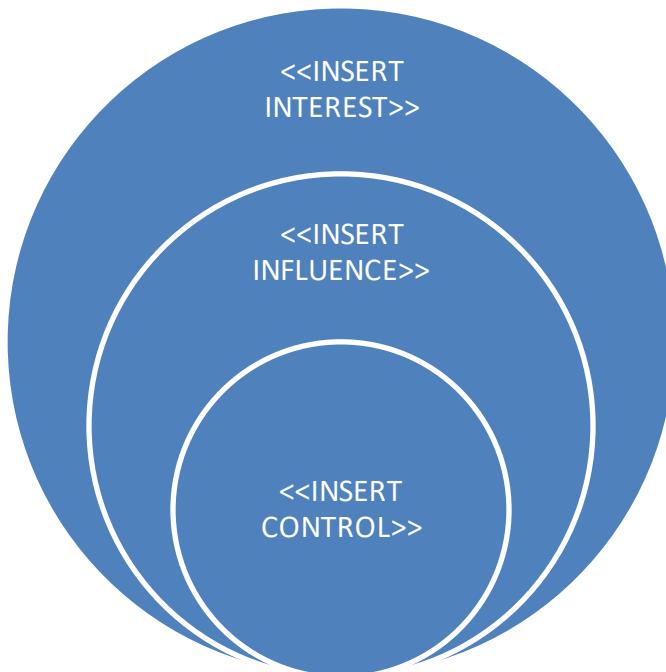
Signature   **Date**

3.5 Impact of Solution

Sphere of Control, Sphere of Influence, Sphere of Interest

c

<<INSERT SUMMARY OF YOUR ASSESSMENT WITH 1-2 SENTENCE DESCRIPTION OF THE MODEL>>

If successful, our project will <<INSERT DESIRED OUTCOMES/CHANGES IN STATE>> to <<INSERT NUMBER AND DESCRIPTION OF WHO IS IMPACTED>>.

3.6 Prototyping

Part 1: Prototyping for Decisions

Research Questions:
- <<INSERT RESEARCH QUESTION #1 THAT YOUR PROTOTYPE WILL HELP YOU ANSWER>>
  - <<INSERT EXPLANATION ON HOW ANSWERING THIS QUESTION WILL REDUCE YOUR MANY IDEAS DOWN TO A SELECT FEW "BEST" IDEAS
- <<INSERT RESEARCH QUESTION #2 THAT YOUR PROTOTYPE WILL HELP YOU ANSWER>>
  - <<INSERT EXPLANATION ON HOW ANSWERING THIS QUESTION WILL REDUCE YOUR MANY IDEAS DOWN TO A SELECT FEW "BEST" IDEAS
- <<INSERT RESEARCH QUESTION #3 THAT YOUR PROTOTYPE WILL HELP YOU ANSWER>>
  - <<INSERT EXPLANATION ON HOW ANSWERING THIS QUESTION WILL REDUCE YOUR MANY IDEAS DOWN TO A SELECT FEW "BEST" IDEAS

Part 2: Prototyping Plan

Research Question #1

Research Question: <<INSERT RESEARCH QUESTION #1 FROM ABOVE>>

Varying Variables	<<INSERT>>
Control Variables	<<INSERT>>
Safety Features	<<INSERT>>
Constant Variables	<<INSERT>>
Access to Testing Rig? (Yes/No)	<<INSERT>>
Creating a Testing Rig? (Yes/No)	<<INSERT>>
Obtained Measurement (with units)	<<INSERT>>

Materials:

Material	Quantity
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
...	...

Procedure:
1. <<INSERT STEP BY STEP PROCESS>>
2. <<INSERT STEP BY STEP PROCESS>>
3. ...

Results:

Results will be conveyed via <<INSERT HOW RESULTS WILL BE FORMATTED>>

Outcomes and Conclusion:

<<INSERT THE MAIN TAKEAWAY/CONCLUSION>>

Testing Design Requirements:

Test #	Design Requirement	Prototyping Test
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
...	...	...

Research Question #2

Research Question: <<INSERT RESEARCH QUESTION #2 FROM ABOVE>>

Varying Variables	<<INSERT>>
Control Variables	<<INSERT>>
Safety Features	<<INSERT>>

Constant Variables	<<INSERT>>
Access to Testing Rig? (Yes/No)	<<INSERT>>
Creating a Testing Rig? (Yes/No)	<<INSERT>>
Obtained Measurement (with units)	<<INSERT>>

Materials:

Material	Quantity
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
…	…

Procedure:

1. <<INSERT STEP BY STEP PROCESS>>
2. <<INSERT STEP BY STEP PROCESS>>
3. …

Results:

Results will be conveyed via <<INSERT HOW RESULTS WILL BE FORMATTED>>

Outcomes and Conclusion:

<<INSERT THE MAIN TAKEAWAY/CONCLUSION>>

Testing Design Requirements:

Test #	Design Requirement	Prototyping Test
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
…	…	…

Research Question #3

Research Question: <<INSERT RESEARCH QUESTION #3 FROM ABOVE>>

Varying Variables	<<INSERT>>
Control Variables	<<INSERT>>
Safety Features	<<INSERT>>
Constant Variables	<<INSERT>>
Access to Testing Rig? (Yes/No)	<<INSERT>>
Creating a Testing Rig? (Yes/No)	<<INSERT>>
Obtained Measurement (with units)	<<INSERT>>

Materials:

Material	Quantity
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>
…	…

Procedure:

1. <<INSERT STEP BY STEP PROCESS>>
2. <<INSERT STEP BY STEP PROCESS>>
3. …

Results:

Results will be conveyed via <<INSERT HOW RESULTS WILL BE FORMATTED>>

Outcomes and Conclusion:

<<INSERT THE MAIN TAKEAWAY/CONCLUSION>>

Testing Design Requirements:

Test #	Design Requirement	Prototyping Test
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
…	…	…

Part 3: Prototyping Updates

Research Question #1

Iteration of Research Question:

<<INSERT UPDATED RESEARCH QUESTION. IF NOT UPDATES, COPY/PASTE AS IS>>

Proof of Prototyping:

Fractional Capability	
User Interface	
Systems Capability	
Pathfinder	

Research Question #2

Iteration of Research Question:

<<INSERT UPDATED RESEARCH QUESTION. IF NOT UPDATES, COPY/PASTE AS IS>>

Proof of Prototyping:

Fractional Capability	
User Interface	
Systems Capability	
Pathfinder	

Research Question #3

Iteration of Research Question:

<<INSERT UPDATED RESEARCH QUESTION. IF NOT UPDATES, COPY/PASTE AS IS>>

Proof of Prototyping:

Fractional Capability	
User Interface	
Systems Capability	
Pathfinder	

Purchased Materials: <<ENTER SEMESTER HERE>>

Item Requested	# of Units	Unit Cost	Total Cost	Vendor	Source	Purpose/Justification (please be specific)

8.5% AZ State Tax		$0.00			

Total Spent in Past Semesters

Semester	Total Spent (±$25.00)
<<INSERT SEMESTER/YEAR>>	<<$X.XX>>
<<INSERT SEMESTER/YEAR>>	<<$X.XX>>
<<INSERT SEMESTER/YEAR>>	<<$X.XX>>

Please see Appendix A for previous budget sheets.

Section 4: Detailed Design

4.1 Bill of Materials (B.O.M)

Sub-Assembly	Item	Catalog / Part #	Purchased From	Vendor/ Method	Quantity	Cost Per Unit
<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>	<<INSERT>>
...	...	...	...	...	...	...

4.2 Prints/Schematics/Code

Semester	Part	Description of Part / Links
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
<<INSERT>>	<<INSERT>>	<<INSERT>>
...	...	...

4.3 Manufacturing and Assembly Processes

Part 1: <<INSERT PART/STEP ASSEMBLY>>

Materials:

<<INSERT MATERIALS NEEDED FOR THIS PART>>

Procedures:

<<INSERT PROCEDURES NEEDED FOR THIS PART>>

Part 2: <<INSERT PART/STEP ASSEMBLY>>

Materials:

<<INSERT MATERIALS NEEDED FOR THIS PART>>

Procedures:

<<INSERT PROCEDURES NEEDED FOR THIS PART>>

Part X: <<INSERT PART/STEP ASSEMBLY>>

Materials:

<<INSERT MATERIALS NEEDED FOR THIS PART>>

Procedures:

<<INSERT PROCEDURES NEEDED FOR THIS PART>>

4.4 Risk Analysis

<<INSERT DFMEA RISK ANALYSIS WORKSHEET DOC AND THE DFMEA SFMEA TABLE EXCEL HERE>>

4.5 Verification

<<COPY/PASTE SPEC #, DESIGN REQUIREMENTS, FROM **2.2 DESIGN REQUIREMENTS** LISTS INTO TABLE AND FILL IN YOUR VERIFICATION>>

Spec #	Design Requirement	Verification
1.1	<<INSERT>>	<<INSERT>>
...	...	....

4.6 Validation

<<COPY/PASTE NEED #, USER NEEDS, FROM **2.2 DESIGN REQUIREMENT LISTS** INTO TABLE AND FILL IN YOUR VALIDATION>>

Need #	User Need	Validation
1.1	<<INSERT>>	<<INSERT>>
...	...	....

Section 5: Project Delivery

5.1 User/Service Manual

<<INSERT LINK TO USER MANUAL HERE>>

5.2 Delivery Checklist

Product, Process, or System Detailed Schematic, or Workflow (For Coding)

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

Bill of Materials / Software or Frameworks (For Coding)

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

Functional and Usability Test Results

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

Safety and Reliability Test Results

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

System and Field Test Results

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

User and Training Manuals

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

Community Partner Evaluation of Final Design Results

<<INSERT HYPERLINK OR QR CODE TO A PUBLISHED PDF VERSION OF THIS FOR USER TO READ. PDF LINK SHOULD BE SET TO "ANYONE CAN VIEW">>

5.3 Customer Satisfaction Questionnaire

1) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
2) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
3) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
4) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
5) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
6) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
7) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
8) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
9) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>
10) <<INSERT QUESTION>>
    a) <<INSERT CP RESPONSE>>

5.4 Record of Project Delivery

<<INSERT PHOTO OR VIDEO OF THE PROJECT AT THE TIME OF DELIVERY. IF VIDEO, PLEASE UPLOAD TO YOUTUBE AS AN UNLISTED VIDEO AND HYPERLINK THE VIDEO>>

Section 6: Current Semester Record

6.1 Point of Contact for Future Team Members

Semester: Fall 2025			
Name	**Role**	**Email**	**Phone Number**
Sai Rithwik Kukunuri	Team Leader	skukunu1@asu.edu	480 – 876 – 2855
Aliya Khan	Budget Lead	akhan207@asu.edu	480 – 737 – 8532
Kavish Shah	Design Lead	kshah77@asu.edu	408 – 609 – 7196
Fernando Juarez Vincent Song	Prototyping Lead	fmjuarez@asu.edu vsong1@asu.edu	602 – 505 – 3728 480 – 930 – 9605
Shlok Vinayak Narvekar Vincent Song	Research Lead	snarvek3@asu.edu vsong1@asu.edu	480 – 559 – 4465 480 – 930 – 9605
Fernando Juarez Kavish Shah	Documentation Lead	fmjuarez@asu.edu kshah77@asu.edu	602 – 505 – 3728
Sai Rithwik Kukunuri	Communication Lead	skukunu1@asu.edu	480 – 876 – 2855
Shlok Vinayak Narvekar	Meeting Organizer	snarvek3@asu.edu	480 – 559 – 4465

6.2 Point of Contact at the Community Partner Organization

Semester: Fall 2025			
Name	**Role**	**Email**	**Phone Number**
Leslie Marquez	Head of Marketing	lmarquez@aztechcouncil.org	205 – 531 – 9018

6.3 Current Project Status

Phase	Completed	What Was Accomplished	Iteration	What Was Accomplished
Phase 1: Project Identification	Fall 2025	We researched about the project and prepared questions to interview our community partner	-	-
Phase 2: Specification Development	Fall 2025	Interviewed community partner, built requirements chart	Iteration 1	Refined requirements after brainstorming
Phase 3: Conceptual Design	Fall 2025	Identified the need for a data merging tool	Iteration 1	Chose the best conceptual design
Phase 4: Detailed Design	In Progress (Fall 2025, Spring 2026)	Pseudo design, and refining design	Iteration 1	Updating and redesigning based on feedback
Phase 5: Delivery	Planned (Fall 2026)	Functional prototype and design test with sample data	Iteration 1	Final design test
Phase 6: Service, Maintenance, and Retirement	Planned (Spring 2027)	Long term maintenance, improvements, updates	-	-

6.4 Current Semester Project Timeline

Major Milestones

Major milestones we aimed to complete this semester are:
- Final Design Plan
- First Prototype
- Updated Design Plan

Details we should be working on now to meet these milestones are:
- Working on user needs requirement to create the best potential design.
- Finding ways to simplify the design and make it most efficient.

- Modifying already existing sources to better suit our community partner's needs.

Gantt Chart

[Gantt Chart - Semester Plan](#)

6.5 Transition Report

Storage Location and Login Info

- Project OneDrive

Major Milestones

Our major milestones for the semester were:

- Final Design Plan
- First Prototype
- Updated Design Plan

Major Roadblocks

Our major roadblocks for the semester were;

- Acquiring sample data
- Correct budget from community partner
- Contact with other employees/stakeholders within our community partner's organization

We suggest asking for someone else to be our contact point with our community partner.

Suggests Next Steps

We suggest the following for next semester's team

- Contacting the COO and CEO
- Being given sample data that represents the data shown in their platforms

Team Leadership Roles for Next Semester

<<INSERT NEXT SEMESTER/YEAR>>			
Name	**Role**	**Email**	**Phone Number**

	Team Lead		
	Budget Lead		
	Design Lead		
	Prototyping Lead		
	Research Lead		
	Documentation Lead		
	Communication Lead		
	Meeting Organizer		

Transition Videos

Semester	Link to Video
<<INSERT ALL VIDEOS FROM PREVIOUS YEARS>>	

Appendix A: Past Semester Records (Relevant Details from Section 6)

<<Semester, ie. Spring 2022>>

Budget

Item Requested	# of Units	Unit Cost	Total Cost	Vendor	Source	Purpose/Justification (please be specific)
8.5% AZ State Tax			$0.00			

Team Members

<<INSERT SEMESTER/YEAR>>			
Name	**Email**	**Role**	**Accomplished**
		Team Lead	
		Budget Lead	
		Design Lead	
		Prototyping Lead	
		Research Lead	
		Documentation Lead	
		Communication Lead	
		Meeting Organizer	