Client Precondition Report

Budtenders Association (BTA)

1. Company Information

Company Name:
Budtenders Association Inc. (BTA)

Primary Contact Person:
Casey Hiltemann, Founder & CEO

Email Address:
casey@naturallycannected.com

Website:
https://www.budtendersassociation.ca

Location / Time Zone:
Canada (Eastern Time, EST)

2. Team Structure & Required Skills

a. Team Composition

The student team will operate as a **single agile delivery team**, with clearly defined but rotating roles to ensure shared ownership and balanced contribution.

Proposed structure:

- 1–2 students: Backend/API development
- 2–3 students: Frontend (dashboard, analytics UI)
- 2 students: Data pipeline & analytics logic
- 1–2 students: Authentication, access control, and security features
- 1 student: CI/CD, testing, documentation support

Students will work in **feature-based subgroups**, contributing incremental, testable code via GitHub pull requests. All students are expected to make regular commits and participate in code reviews.

b. Required Baseline Skills

Students should already have:

- General programming experience
- Familiarity with Git/GitHub and pull request workflows
- Basic understanding of:
    - Web applications
    - Client–server architecture
    - APIs
- Willingness to learn new frameworks, tools, and domain concepts

c. Skills to Be Developed During the Project

Students will gain experience in:

- Building and deploying a **production-style web application**
- REST API design and implementation
- Analytics dashboards and data visualization
- Role-based authentication and access control
- Secure handling of user and research data
- Writing tests and using CI pipelines
- Working with a real client and evolving requirements
- Understanding privacy, compliance, and ethical data use in real systems

3. Project Title & Acronym

Project Title:
Partner Analytics, Research & Education Platform

Acronym (GitHub repo):
BTA-PARTNER-PLATFORM

4. Project Overview & Problem Statement

BTA operates a national research and education platform for the legal cannabis industry. Brands partner with BTA to:

- Educate retail professionals and shoppers
- Gather anonymized research insights
- Track changes in awareness, confidence, and recommendation intent over time

Current challenge:
BTA needs an implementation-ready partner analytics platform that allows brand partners to

securely log in, view engagement metrics, and access research insights, without exposing raw data or compromising member privacy.

Target users:

- Cannabis brand managers
- BTA internal research & analytics staff
- Integrating POS Data companies

Project goal:
Build a **functional, secure Partner Analytics MVP** that transforms existing survey and engagement data into usable dashboards and reports for partners.

This is an **implementation-first project**, not a design-only exercise.

5. Solution Overview & Core System Components

Core MVP Deliverables (Must be implemented)

Students will implement a working system that includes:

1. **Partner Authentication & Access Control**
    - Secure login
    - Role-based access (partner vs internal admin)
    - Brand-specific data visibility
2. **Analytics Dashboard (Frontend + Backend)**
    - Display engagement metrics (e.g. survey responses, quiz completions)
    - Basic charts and tables
    - Time-based filtering (e.g. last 30 / 60 / 90 days)
3. **Research Data API**
    - Backend endpoints that serve anonymized, aggregated data
    - No direct access to raw respondent-level data
4. **Data Ingestion / Processing Layer**
    - Ingest survey results from existing data sources
    - Normalize and prepare data for dashboard consumption
5. **Audit & Logging Features**
    - Track access to partner dashboards
    - Log key system actions for accountability

Stretch Goals (Optional)

If time permits:

- Exportable reports (CSV / PDF)
- Comparison views (quarter-over-quarter metrics)

- Alerting or notifications (e.g. “new data available”)
- Enhanced visualizations

6. Technical Considerations

Preferred Tech Stack (flexible):

- Backend: Node.js or Python (Flask/FastAPI)
- Frontend: React or similar modern JS framework
- Database: MySQL / PostgreSQL (read-only access where possible)
- Auth: JWT or session-based authentication

APIs / Data:

- Students will be provided:
    - Sample datasets
    - Read-only access to non-production data
    - API documentation

Constraints:

- No access to live production credentials
- All work occurs in a sandbox or staging environment

Quality & Testing:

- Unit tests for core logic
- Basic CI workflow (GitHub Actions or similar)

Security & Privacy:

- Data anonymization
- Least-privilege access
- Secure handling of credentials

7. Innovation & Competitive Advantage

This project is innovative because students are:

- Building a real analytics product used by industry partners
- Working with behavioral and research data, not toy datasets
- Designing systems that balance insight delivery with privacy
- Contributing to a platform positioned for acquisition and scale

8. Proposed Implementation Timeline

Weeks 1–2:
Onboarding, requirements finalization, environment setup

Weeks 3–4:
Authentication, basic backend structure

Weeks 5–7:
Core API development, data processing logic

Weeks 8–10:
Frontend dashboard implementation, data visualization

Weeks 11–12:
Testing, security review, performance improvements

Week 13:
Final deployment, documentation, presentations

9. Deployment & Support Expectations

- BTA will provide:
    - Staging environment access
    - Sample datasets
    - documentation
- Students will deploy to:
    - University-hosted or agreed cloud environment
- Final deliverables include:
    - Running web application
    - Setup documentation
    - API documentation

10. Confidentiality & Intellectual Property

- All code produced belongs to BTA
- Students may reference the project in portfolios **without sharing proprietary data**
- No public disclosure of datasets or internal metrics
- NDA can be provided if required

11. Proposed Success Metrics

- Working authentication and dashboard system
- Each student contributes 6+ meaningful pull requests
- Core MVP features functional and demoable
- Clean, readable, documented code
- Positive student and faculty evaluation

12. Mentorship & Communication Plan

- Weekly check-in
- Primary mentor:
    - Sadman Hossain (BTA Acting CTO)
- Secondary oversight:
    - Casey Hiltemann (product + context)
- Communication tools:
    - GitHub
    - Discord
    - Email