**Business Case Document (Group 2)**

**Inventory Management Application (InvenTrack Pro)**

**Introduction:**

* The Inventory Management Dashboard is a **SAAS (Software as a Service**) business-to-business application tailored for companies to manage their inventory efficiently, track product data, and streamline expenses.
* This platform leverages cutting-edge frontend and backend technologies to deliver a scalable, user-friendly, and responsive solution.
* Fully deployed on AWS, it offers robust cloud-based infrastructure to ensure high performance and flexibility as businesses grow.
* The Key Use Cases of the Inventory Management Dashboard includes
  + Inventory Tracking
  + Expense Monitoring
  + Data Visualization
  + Product Management

**Business Case Conceptual Structure:**

**WHAT?**

**Value Propositions:**

**What Customer business needs are we satisfying?**

* **Efficient Inventory Management:**
  + Streamlines the tracking of stock levels, product data, and supply chain activities, helping businesses optimize inventory control and reduce waste.
* **Expense Monitoring:**
  + Provides businesses with tools to monitor and manage expenses associated with inventory, including purchasing costs, storage fees, and product distribution.
* **Data-Driven Decision Making:**
  + Offers integrated data visualization and analytics to support better business decisions based on real-time insights into inventory performance and sales trends.
* **Scalability:**
  + As businesses grow, the dashboard scales with them, offering more advanced features and supporting higher volumes of data and transactions.

**What value do we add to the Customers?**

* **Efficiency:**
  + The platform streamlines day-to-day inventory management, allowing businesses to track stock levels, monitor sales, and oversee expenses without manual processes.
* **Decision Support:**
  + Businesses gain insights from integrated data visualization tools (like Recharts), enabling them to make informed decisions based on real-time data.
* **User-Friendly Interface:**
  + The application uses clean and intuitive design elements, such as Material UI tables, making it easy for non-technical users to navigate and operate.

**Type of Business Model**

**What type of business model do we adopt?**

* **Subscription-Based Model:**
  + Businesses pay monthly or annually for access to the platform’s suite of tools.
* **Additional Revenue Opportunities:**
  + **Partnership Fees:** Businesses can partner with the platform for value-added services (e.g., integrated supply chain solutions or third-party logistics providers).

**Key Resources**

**What Key Resources do our value propositions require?**

* **Development Team:**
  + A skilled team of developers, UI/UX designers, and project managers are required to build, maintain, and improve the dashboard.
  + The team ensures that the system remains up to date with industry trends and continues to offer cutting-edge features.
* **Technology Infrastructure:**
  + **AWS Services:** EC2 (for hosting the backend), RDS (for database management), and S3 (for secure file and image storage) ensure the system is reliable and scalable.
  + **Prisma ORM and PostgreSQL:** A robust database system that powers the backend with efficient data management capabilities.

**What are our Distribution Channels?**

* **Website:**
  + The official website serves as the primary point of contact for potential customers. Businesses can sign up for the service, manage their accounts, and explore the platform’s features.
* **Business Partnerships:**
  + Collaborations with other service providers, such as third-party logistics or supplier networks, expand the platform’s reach and provide additional value to users.

**Technology:**

**What technology will we use to build the product?**

* **Frontend:**
  + Built using Next.js for fast and dynamic user experiences, Tailwind CSS for modern, responsive styling, and Re-charts for interactive data visualizations.
* **Backend:**
  + Powered by Node.js with Express.js for handling server-side operations and PostgreSQL (via Prisma ORM) for robust database interactions.
* **Mobile and Desktop Accessibility**:

The platform is fully responsive and can be accessed via desktop or mobile devices, offering flexibility for users on the go.

* **User Experience:**
  + Includes light and dark mode options, intuitive navigation, and seamless interactions, making the platform adaptable to user preferences and needs.

**Prototypes:**

* **List of known prototypes:**
  + https://www.etsy.com/market/inventory\_dashboard
  + https://en.sant-office.com/product-page/dashboard-inventario
  + <https://www.dronahq.com/inventory-management-dashboard/>

**WHO?**

**Who are our customers?**

* **Target Audience:**
  + Businesses from various industries, such as retail, wholesale, and distribution that need efficient inventory and expense management systems.

**Who are our Stakeholders?**

**Customers**

* **Interest**: Access to an easy-to-use platform with efficient inventory management and customizable features.
* **Benefit**: Enhanced operational efficiency, better decision-making capabilities, and a streamlined user experience.

**Investors/Shareholders:**

* **Interest**: Monitoring the growth, profitability, and sustainability of the platform.
* **Benefit**: Financial returns on investments, improved market position, and risk management.

**Suppliers/Vendors:**

* **Interest**: Seamless integration with the platform for inventory tracking and order management.
* **Benefit**: Real-time data on stock levels, automated restocking notifications, and improved sales forecasting.

**Business Partners:**

* **Interest**: Collaborating on joint ventures or integrations (e.g., CRM or ERP systems) that could enhance the functionality of the platform.
* **Benefit**: Mutual growth opportunities and access to new markets through partnerships

**WHY?**

**Expected Benefits:**

**Why will our new product be better than the existing market solutions:**

* **User-Friendly Design:**
  + The platform’s clean and intuitive design allows business users with minimal technical knowledge to operate the system efficiently.
* **Scalability:**
  + The use of AWS ensures that the platform can scale to accommodate a growing number of users and features.
* **Advanced Analytics:**
  + Integrated data visualizations (using Recharts) provide critical insights that help businesses make better operational and financial decisions.

**Why Customers Will Use the System:**

* **Centralized Management:**
  + Businesses can manage all aspects of their inventory, from stock levels to supplier relations, in one place**.**
* **Customizability:**
  + The system is flexible and can be tailored to the unique needs of different businesses, such as adding specific suppliers or products.
* **Accessibility:**
  + Available on both desktop and mobile devices, with features like light and dark mode to suit various user preferences.

**HOW?**

**System Use:**

**How will the customers use the system?**

* **Business Interaction:**
  + Businesses will log in via the web portal and use the dashboard to manage products, track expenses, and generate reports on inventory performance.
* **Key Functions:**
  + Product creation and management, expense tracking, supplier management, and visual reporting tools.

**How will we make money?**

**Revenue Generation:**

* **Primary Source**:
  + Subscription fees from businesses, which provide a steady and predictable revenue stream.
* **Additional Revenue**:
  + Business partnerships, where companies offering complimentary services (e.g., logistics) can integrate with the dashboard and generate additional revenue streams.