# **Pandacea – Sprint 1 Development Plan (MVP)**

## **Sprint Goal**

Build a working prototype of the Pandacea platform focused on collecting real-world data from users, storing it securely, and preparing it for developer access. This sprint will include user onboarding, core data collection, and admin visibility — laying the foundation for feedback and pilot use.

## **Sprint Duration**

**2–3 weeks**

## **Key Outcomes**

* Android-only app with basic onboarding and mock data stream collection
* Backend system for logging and viewing submitted data
* Manual CSV export for developer testing
* Prototype payout tracker (no real payments yet)

## **Feature Breakdown**

### **1. Mobile App (Android)**

**Goal:** Allow users to register, consent to data collection, and simulate data sharing.

**Features:**

* Onboarding screen with Pandacea mission and FAQ link
* Account creation (email + password)
* Consent screen with checkboxes for 2–3 data streams
* Toggle switches for data sharing preferences
* Simulated data feed (e.g., accelerometer, location, screen interaction)
* Points earned indicator (mock earnings tracker)

**Tech Stack:**

* React Native or Kotlin
* Firebase Authentication
* Device sensor APIs

### **2. Backend & Admin Portal**

**Goal:** Log data streams, track user entries, and export CSVs for developer access.

**Features:**

* REST API for incoming data
* Basic admin dashboard for viewing:
  + Registered users
  + Opted-in data streams
  + Volume and type of collected entries
* CSV export by stream type and date

**Tech Stack:**

* Node.js (Express) or Python (FastAPI)
* Firebase Firestore or PostgreSQL
* AWS S3 or GCP for CSV file storage

### **3. Data Privacy & Anonymization (Basic)**

**Goal:** Ensure no personal identifiers are stored in data logs.

**Tasks:**

* Strip or hash email/user ID in data submissions
* Add timestamp and region without exact location
* Obfuscate sensitive values (e.g., device IDs)

**Future enhancement:** Differential privacy and noise injection

### **4. Developer Feedback Loop**

**Goal:** Enable early developer testers to explore the data

**Tasks:**

* Prepare sample datasets in CSV (from test users)
* Include metadata columns: stream type, anonymized user ID, timestamp
* Deliver sample datasets via secure download link or shared folder

## **Team & Roles**

* **Product Owner:** Define acceptance criteria, coordinate feedback
* **Mobile Developer:** Build onboarding, settings, mock data streams
* **Backend Engineer:** Build data logging endpoints and admin view
* **Data Engineer (optional):** Format and clean CSV exports
* **UX Designer (optional):** Style the mobile flow for user trust

## **Success Criteria**

* At least 10 test users onboarded and sharing mock data
* Admin dashboard successfully receiving and logging records
* Exported CSVs ready for researcher feedback
* User can toggle data sharing and see earnings simulation

## **Next Sprint Preview**

* Real sensor data collection
* User earnings tied to data volume
* Developer dashboard and query tool (basic)
* Begin synthetic twin data simulation design