**Product Owner’s Idea**

**Agentic AI Revenue Assistant – Minimal Viable Demo**

**1. Executive Summary**

This product is a focused, minimal viable demo of an Agentic AI-powered assistant for Hong Kong telecom companies. The demo showcases a single, high-impact agent that prioritizes leads and suggests revenue-boosting actions, while ensuring strict data privacy through pseudonymization of sensitive customer data. The solution demonstrates agentic autonomy, actionable output, and business value in a simple, visually clear Streamlit dashboard.

**2. Goals and Objectives**

**Primary Goals**

* Demonstrate agentic AI autonomy, reasoning, and privacy protection.
* Enable prioritization of leads and actionable sales suggestions.
* Ensure all sensitive customer data is pseudonymized prior to analysis.
* Deliver a clear, interactive demo suitable for technical and business audiences.

**Success Metrics**

* All demo-critical features are functional and stable.
* No raw PII is exposed during any step.
* Lead prioritization and suggested actions are clear and actionable.
* Demo is delivered on time and is easily extensible for future enhancements.

**3. Target Audience**

* CTOs, IT Department Heads, and Development Teams
* Sales/Marketing Managers and Business Analysts
* Hong Kong telecom industry stakeholders

**4. Product Features and Requirements**

**4.1 Highest Priority Features (for Demo)**

| **ID** | **Requirement Description** | **Priority** |
| --- | --- | --- |
| FR1 | System shall pseudonymize all sensitive customer data (names, emails) before LLM input. | Highest |
| FR2 | System shall allow user to upload/select a sample customer list (CSV). | Highest |
| FR3 | System shall analyze customer purchase history and engagement data using the agent. | Highest |
| FR4 | System shall output a prioritized list of leads with suggested actions. | Highest |
| FR5 | System shall display anonymized results in a clear, interactive Streamlit dashboard. | Highest |
| FR6 | System shall use an open-source LLM (DeepSeek via OpenRouter) for agent reasoning. | Highest |
| FR7 | System shall allow user to review results after each run. | Highest |
| NFR1 | Data encryption at rest and in transit. | Highest |
| NFR2 | Intuitive UI for non-technical users. | Highest |
| NFR3 | Compliance with GDPR and Hong Kong PDPO. | Highest |

**4.2 Medium and Low Priority Features (for Future Phases)**

| **ID** | **Requirement Description** | **Priority** |
| --- | --- | --- |
| FR8 | System shall log all agent actions and outputs for review. | Medium |
| NFR4 | Lead analysis response time < 30 seconds. | High |
| NFR5 | Support up to 10,000 customer records in demo. | Medium |
| FR9 | System shall support extension to multi-agent workflows. | Low |
| FR10 | System shall allow for manual override or approval of agent recommendations. | Low |
| FR11 | System shall integrate with external APIs (CRM, email, etc.). | Low |

**5. User Stories**

| **ID** | **User Role** | **Description** | **Acceptance Criteria** |
| --- | --- | --- | --- |
| US1 | Sales Manager | As a sales manager, I want to upload a customer list and get prioritized leads with suggested actions. | Able to upload CSV, view anonymized prioritized leads, and see clear suggestions. |
| US2 | Developer | As a developer, I want clear demo requirements and priorities so I can focus on the most critical features. | Highest priority requirements are implemented and stable. |
| US3 | Security Officer | As a security officer, I want all sensitive data pseudonymized before LLM processing. | No raw PII is transmitted or displayed in the UI. |

**6. Demo Flow and User Interaction**

1. **User uploads or selects a sample customer list (CSV).**
2. **Agent pseudonymizes sensitive data (names, emails).**
3. **Agent analyzes purchase history and engagement data.**
4. **Agent outputs a prioritized list of leads with suggested actions (e.g., “Upsell Product X”, “Send Discount Offer”).**
5. **All steps and results are shown in a simple Streamlit dashboard.**

**7. Technical Architecture Overview**

* **Data Input Layer:** CSV upload or sample selector.
* **Privacy Layer:** Pseudonymization of PII (names, emails) before LLM calls.
* **Agentic AI Layer:** Single-agent logic using DeepSeek via OpenRouter.
* **Presentation Layer:** Streamlit dashboard for visualization and interaction.
* **Security Layer:** Data encryption in transit and at rest.

**8. Technology Stack**

| **Component** | **Technology/Framework** | **Notes** |
| --- | --- | --- |
| LLM API | OpenRouter (DeepSeek, Llama-2) | Open-source, privacy-compliant |
| Agent Framework | Custom Python logic | Single-agent for demo |
| Data Privacy | Custom pseudonymization utils | Masking of names, emails |
| Web Interface | Streamlit | Lightweight, interactive UI |
| Storage | Local, encrypted | For demo data and logs |

**9. Development Plan (Demo-Focused)**

| **Day** | **Task** |
| --- | --- |
| 1 | Set up Streamlit UI, load sample data |
| 2 | Implement privacy (pseudonymization) layer |
| 3 | Integrate OpenRouter/DeepSeek API |
| 4 | Write agent logic for lead prioritization |
| 5 | Display results in dashboard |
| 6 | Polish UI, add comments, test flows |
| 7 | Buffer for fixes, prep for presentation |

**10. Risks and Mitigations**

| **Risk** | **Mitigation Strategy** |
| --- | --- |
| Data leakage of sensitive info | Implement strong pseudonymization and audit logging |
| LLM performance limitations | Use open-source LLMs optimized for business context |
| Demo scope creep | Strictly focus on “Highest” priority features |

**11. Future Enhancements**

* Add multi-agent orchestration (lead, sales, retention, market insights).
* Role-based access and advanced dashboard features.
* Integration with real CRM, email, and marketing APIs.
* Real-time social media sentiment analysis.
* Advanced cryptographic privacy methods.

**Note:**  
All requirements marked **“Highest”** are mandatory for the demo. Other requirements should be deferred unless time permits. This ensures the demo is focused, achievable, and showcases the core value of Agentic AI for revenue generation and privacy protection.

1. <https://ppl-ai-file-upload.s3.amazonaws.com/web/direct-files/attachments/9841353/ba3cea4c-a021-416b-8094-fcd9aa753a50/Revenue-Boosting-Agentic-AI-Suite-for-Hong-Kong-Businesses-During-Recession-v0.1.docx>