***Potential Scenario Solution***

**Instructions:** Review this potential solution. Compare your analysis to this solution.

**Part I:** Analyze and document requirements. Map at least three requirements in each AI Product Development Stage.

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| Product Development Stages | Requirements |
| Ideation and Innovation Stage Requirements | * Develop a problem statement and clear business case for the system |
| * Analyze and document how AI will support the system |
| * Identify key roles and responsibilities essential to success |
| * Assess the internal market—who will use the product, and what are their expectations, Communicate the new system to potential users |
| * Establish Key Performance Indicators (KPI) |
| * Identify specific AI models you will use, i.e. Machine Learning |
| * Establish a cross-functional team. Address talent shortfalls |
| * Document the Product Vision and Value Proposition |
| * Perform a thorough cost-benefit analysis |
| * Gain approval for the product concept and business case |
| Data Management Requirements | * Gather and validate all data requirements to build the product |
| * Work with Domain Experts to identify required expectations for system responses |
| * Establish the data architecture. Acquire equipment |
| * Define the user experience and develop a Product Roadmap to include data management infrastructure and activities required |
| * Identify safeguards to ensure data is clean, valid, secure, and accessible |
| Research and Development Requirements | * Implement the product incrementally. Develop a Release Plan |
| * Strive to achieve user-friendly design and functionality |
| * Encourage innovation and experimentation to develop an optimal solution |
| * Work closely with the team to align technical and business objectives |
| * Identify and manage blockers |
| * Develop test plans to validate functionality user experience and solicit feedback |
| Deployment Requirements | * Work with all stakeholders to assess launch readiness |
| * Implement alpha and beta testing. Solicit feedback |
| * Ensure compliance and security before and post-launch |
| * Regularly update the system with new features and improvements and address bugs |
| * Strive for continuous improvement and learning |

**Part II:** Identify at least four roles required on the AI product management team. AI Product Manager is an essential role.

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| AI Product Team Role | Team Member Responsibilities |
| AI Product Manager | Manage the end-to-end Product Management Lifecycle |
| Business Analyst | Share business needs, use expectations, and use cases |
| Data Scientist | Collect, clean, and process data. Choose appropriate AI models |
| Software Developer | Build the backend infrastructure. Perform integration activities |
| User Experience (UX) | Design user flow and chatbot interfaces and conduct useability testing |
| Content Specialist | Create and organize content. Craft prompt responses |
| Project Manager | Manage product development timelines, resources, and scope |
| Domain Experts | Provide subject matter knowledge and query response guidance |
| DevOps Engineer | Manage deployment and scaling, scalability, reliability, and updates |

**Part III:** Identify at least four challenges or risks. Document your response to mitigate the challenges or risks.

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| Challenge or Risk | Mitigation Response |
| Data quality and quantity | * Limit insufficient, noisy, or incomplete data. Minimize bias or erroneous responses. * Ensure data is updated on a real-time basis. * Strive for responses that are accurate, brief, and concise. |
| Natural Language Understanding (NLU) | * Build and validate robust NLU models that accurately translate intent. * Beta test the system with multiple users from various cultures to verify and solicit feedback. * Build in human intervention capabilities if required. |
| Scalability and integration | * Ensure the system is built to support current and future user numbers. * Ensure the system integrates with the current systems architecture. |
| Privacy and security | * Build safeguards to avoid the release of sensitive data, privacy violations, or information breaches. * Develop a reporting system to identify and address issues as they occur. |
| User satisfaction and adoption | * Tailor responses to ensure users can apply the information to achieve efficiencies. * Provide education and training to increase adoption and overcome resistance to change. |
| Maintenance and Updates | * Establish a schedule for periodic or real-time updates as information and conditions change. |
| Legal and regulatory compliance | * Ensure compliance with all data protection laws, accessibility guidelines, and industry standards. |