**Utilization and Case Management AI Automation Project Charter**

1. **Project Objective**

The objective of this project is to design, develop, and implement an AI-powered automation system to streamline the entire utilization and case management process. The system will leverage Generative AI, machine learning and natural language processing (NLP) technologies to enhance decision-making, improve operational efficiency, and reduce operational/ medical cost. Key objectives include:

* Automating the identification, tracking, and management of cases to optimize resource allocation and service delivery.
* Integrating AI algorithms to predict case outcomes, streamline workflows, and prioritize cases based on urgency and complexity.
* Reducing human error and administrative overhead by automating routine tasks like data entry, reporting, and case updates.
* Improving the overall speed and accuracy of case resolution, ensuring better outcomes for clients and stakeholders.
* Enhancing data analytics capabilities to provide real-time insights for decision-makers, enabling proactive case management.

1. **Project Justification**

This project is critical to improving the operational efficiency of the current case management system, which relies heavily on manual processes that are time-consuming and prone to error. With the increasing volume and complexity of cases, human-driven workflows have become a bottleneck in providing timely and accurate services. By introducing AI automation, the organization can achieve:

* Improved Efficiency: AI can handle repetitive, time-consuming tasks such as data entry, updating case statuses, and generating reports, allowing human resources to focus on high-priority decision-making and case management.
* Cost Reduction: By automating routine processes, the organization can reduce labor costs, mitigate errors, and lower administrative overhead, leading to long-term financial savings.
* Enhanced Decision-Making: AI-driven tools can analyze large datasets and identify patterns that human case managers might overlook, leading to more accurate assessments of case urgency and better allocation of resources.
* Scalability: The AI automation system will provide a scalable solution that can handle increasing case volumes without a proportional increase in human resources, making it adaptable to future business growth.
* Better Client Satisfaction: With faster case resolution and more accurate management, clients will experience quicker response times, leading to higher satisfaction and improved outcomes.

The automation of utilization and case management using AI is not only aligned with the organization's goals of improving service delivery but also supports its long-term vision of becoming a more innovative, data-driven, and efficient organization.

1. **Project Scope Description**

This project aims to automate the entire utilization and case management process that are being handled by EXL Clinical Operations team by implementing an AI-powered system that integrates Gen AI, machine learning, natural language processing (NLP), and automation technologies. The solution will streamline case identification, tracking, management, and reporting, reducing manual effort, improving decision-making, and enhancing overall operational efficiency.

**In-Scope**

The following activities and deliverables are within the scope of the project:

* AI System Development and Deployment:
  + Design and implement AI-driven tools to automate case data entry, case prioritization, resource allocation, and reporting.
  + Development of machine learning models for predicting case outcomes and identifying high-priority cases.
  + Integration of natural language processing (NLP) capabilities to process unstructured data (e.g., case/ nurse notes, EMR).
* System Integration:
  + Integration with existing case management and utilization tracking systems to ensure seamless data flow and interoperability.
  + Integration with external systems (if necessary) for data exchange, such as client databases or service providers.
* User Interface (UI) Design and Deployment:
  + Development of a user-friendly interface for case managers and stakeholders to interact with the AI-driven system, including dashboards for real-time insights and case management tools.
* Testing and Quality Assurance:
  + Comprehensive testing of the AI system to ensure accuracy, reliability, and usability, including unit tests, system tests, and user acceptance testing (UAT).
* Training and Documentation:
  + Development of training materials and documentation for end-users, including case managers, to ensure effective use of the new system.
  + Conducting training sessions to familiarize users with the AI-powered system and its functionalities.
* Data Analytics and Reporting:
  + Implementation of AI-based analytics to monitor and report on key metrics, such as case resolution times, utilization rates, and overall system performance.

**Out-of-Scope**

The following activities and components are outside the scope of this project:

* Hardware Upgrades: This project does not involve any upgrades or changes to existing hardware infrastructure.
* Non-AI-Driven Process Improvement: Any manual process improvements not directly related to AI implementation (e.g., staffing changes, non-automation-related software upgrades) are outside the project scope.
* Customizations for Specific Clients: The system will be developed as a standardized solution and will not include custom features for individual clients unless specifically requested and funded.

**Deliverables**

The project will deliver the following key items:

* AI-Powered Case Management System – Fully developed, tested, and deployed AI tools for case automation and utilization management.
* User Interface – An intuitive UI for case managers and stakeholders, providing easy access to AI features, data insights, and case management workflows.
* Integration with Existing Systems – Seamless integration with current case management software and databases.
* Training Materials – Documentation and training guides to ensure all users are proficient in the new system.
* Reports and Analytics Tools – Real-time reporting and data analytics tools to provide actionable insights into case performance.

**Assumptions**

* Sufficient Data will be available for AI and machine learning model training
* The required datasets for training the AI models will be available and accessible within the project timeline.
* Current case management systems will support integration with the new AI solution.
* End-users (case managers, supervisors) will be available for training sessions and user feedback during testing phases.
* The project team will have access to necessary hardware and software resources for AI development and testing.

**Constraints**

* Timeline Constraints: The project must be completed and fully implemented within [5 months], with key milestones met on schedule.
* Data Privacy: The AI system must comply with all relevant data protection and privacy regulations (e.g., GDPR, HIPAA) when handling sensitive case data.

1. **Risk Identification**

This section identifies potential risks that could impact the successful delivery of the project. These risks are categorized to better understand their nature and implications.

**Categories of Risks:**

1. Technical Risks:
   * Risk: Inaccurate AI predictions or algorithms due to data sufficiency and process knowledge
   * Risk: Difficulty in integrating AI systems with existing case management platforms.
   * Risk: Data quality issues affecting the accuracy of machine learning models.
2. Operational Risks:
   * Risk: Insufficient user adoption of the AI system.
   * Risk: Lack of necessary training and support for end-users.
   * Risk: Resistance to automation among staff due to fear of job displacement or unfamiliarity with the new system.
3. Project Management Risks:
   * Risk: Delays in project timeline due to unforeseen technical challenges or resource shortages.
   * Risk: Budget overruns caused by unforeseen complexities during system integration or training.
   * Risk: Inadequate stakeholder engagement leading to misalignment on project goals and expectations.
4. External Risks:
   * Risk: Changes in data privacy regulations that affect the development or deployment of AI systems.
   * Risk: Vendor-related risks (e.g., reliance on external contractors or technology providers for key components).

**Risk Assessment**

Each identified risk is evaluated based on its probability of occurrence and impact on the project. A risk matrix is used to prioritize the risks.

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| **Risk Category** | **Risk Description** | **Probability (Low/Medium/High)** | **Impact (Low/Medium/High)** | **Risk Priority (High/Medium/Low)** |
| Technical Risks | Inaccurate AI predictions due to data sufficiency and process knowledge | Medium | High | High |
| Difficulty in integration with existing systems | Medium | High | High |
| Data quality issues affecting AI performance | High | High | High |
| Operational Risks | Insufficient user adoption | Medium | Medium | Medium |
| Lack of training for end-users | Medium | High | High |
| Resistance to automation among staff | Medium | Medium | Medium |
| Project Management Risks | Project delays due to technical challenges | Medium | High | High |
| Budget overruns | Medium | Medium | Medium |
| Inadequate stakeholder engagement | Low | Medium | Low |
| External Risks | Changes in data privacy regulations | Low | High | Medium |
| Client System-related risks | Low | Medium | Low |

**Risk Response Plan**

For each high-priority risk, a mitigation or response strategy is outlined to reduce its likelihood or impact.

1. Inaccurate AI Predictions or Algorithms
   * Mitigation Strategy:
     + Ensure robust data quality checks and preprocessing to improve model accuracy.
     + Use an iterative approach for model development, conducting frequent testing and validation with real-world data.
2. Difficulty in Integration with Existing Systems
   * Mitigation Strategy:
     + Conduct thorough pre-implementation assessments to identify integration challenges.
     + Engage the IT team early in the project to ensure system compatibility.
     + Develop a detailed integration plan with clear milestones and test cases for validation.
3. Data Quality Issues Affecting AI Performance
   * Mitigation Strategy:
     + Implement a data governance strategy to ensure high-quality, clean data.
     + Conduct data audits and cleansing procedures before feeding data into the AI models.
     + Regularly monitor data quality during AI training and usage to catch any issues early.
4. Insufficient User Adoption of AI System
   * Mitigation Strategy:
     + Involve key stakeholders early in the design phase to ensure the system meets their needs.
     + Provide ongoing support and feedback loops post-implementation.
5. Lack of Training for End-Users
   * Mitigation Strategy:
     + Develop a comprehensive training program, including hands-on workshops and detailed documentation.
     + Schedule regular refresher training sessions to ensure long-term competency.
6. Resistance to Automation Among Staff
   * Mitigation Strategy:
     + Highlight the benefits of automation in improving job roles, such as fewer manual data entry and more strategic responsibilities.
     + Foster a culture of continuous improvement and innovation to alleviate fears.
     + Provide incentives or recognition for those who excel in using the new system.
7. Project Delays Due to Technical Challenges
   * Mitigation Strategy:
     + Establish a detailed project plan with realistic timelines and buffer time for unforeseen issues.
     + Maintain open lines of communication among team members to address roadblocks early.
     + Regularly monitor progress and adjust resources or timelines as needed.
8. Budget Overruns
   * Mitigation Strategy:
     + Conduct a thorough risk analysis at the beginning of the project to anticipate potential cost overruns.
     + Build in contingency funds to address unexpected challenges.
9. Inadequate Stakeholder Engagement
   * Mitigation Strategy:
     + Set up regular meetings and communication channels with stakeholders to ensure alignment.
     + Identify key decision-makers early and involve them in critical milestones.
     + Solicit feedback during all phases to ensure the project meets their expectations.
10. Changes in Data Privacy Regulations
    * Mitigation Strategy:
      + Stay updated on relevant privacy regulations (e.g., GDPR, HIPAA) and incorporate them into system design.
      + Conduct a legal review to ensure compliance with data protection laws.
      + Build flexibility into the system for adjustments based on future regulatory changes.

**Risk Monitoring and Control**

* Monitoring: Regular risk assessments will be conducted throughout the project lifecycle. The project manager and risk management team will track identified risks and any emerging risks.
* Control: Any risks that materialize will be addressed according to the response strategies outlined above. Continuous feedback loops will ensure that mitigation plans are adjusted as necessary, and new risks are identified early.

1. **Project Timelines and Milestones:**

The project would be executed in approximately 5-month time frame. The planned start date of the project 03/01 and planned completion date would be 07/31.

**Project Milestones**

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| **Milestone** | **Description** | **Expected Completion Date** |
| 1. Project Kickoff | Official project launch, with team introductions and review of the project scope, objectives, and timeline. | Week 1 |
| 2. Requirements Gathering Complete | All project requirements gathered, documented, and validated with stakeholders. This includes functional and non-functional requirements for the AI system. | Week 2-Week3 |
| 3. AI Model Development Phase 1: Prototype | Development of initial AI prototype for utilization and case management predictions, including basic machine learning models for case categorization. | Week4-Week5 |
| 4. System Architecture and Design | Finalization of system design and architecture, ensuring compatibility with existing platforms and alignment with security, data, and performance requirements. | Week7-Week8 |
| 5. Integration Plan Finalized | Comprehensive plan for integrating the AI system with current case management systems, including a timeline and risk mitigation strategies. | Week9 |
| 6. Initial Data Collection and Preprocessing | Collection, cleaning, and preprocessing of data required for training the AI models. This may involve historical case data and real-time data sources. | Week10-Week11 |
| 7. AI Model Development Phase 2: Full Model Implementation | Full implementation of AI models, including machine learning algorithms, NLP for case data processing, and prediction capabilities. | Week12-Week13 |
| 8. System Integration and Testing | Integration of the AI system with existing systems and databases, followed by system testing to ensure data flow and functionality. | Week14 |
| 9. User Interface (UI) Design Completion | Design and implementation of the user interface for case managers and stakeholders, providing access to AI insights and automation features. | Week15-Week16 |
| 10. User Acceptance Testing (UAT) | Final round of testing by end-users to validate the AI system's functionality, usability, and effectiveness in real-world scenarios. | Week17 |
| 11. Training Program Completion | Delivery of training materials and completion of training sessions for all end-users (case managers, supervisors, etc.) on the new AI system. | Week18 |
| 12. Go-Live and Deployment | Official deployment of the AI system into production, including monitoring, issue resolution, and final user onboarding. | Week19 |
| 13. Post-Implementation Review | Review of project outcomes, including system performance, user feedback, and alignment with original objectives. Initial adjustments are made based on feedback. | Week20 |
| 14. Project Closure and Final Reporting | Completion of all project activities, final report delivery, and formal project closure meeting. Key performance indicators (KPIs) and success metrics are assessed. | Week20 |

1. **Stakeholders**

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| **NAME** | **ORGANIZATION** | **ROLE** |
| Vikram Singh | EXL | Project Sponsor |
| Rahul Sharma | EXL | Project Sponsor |
| Analytics team | EXL | Delivery |
| Clinical Ops team | EXL | Testing and Validation |
| EXL Clinical SMEs | EXL | Consultation |
| Clients | EXL | Client Stakeholders |