Project Proposal and Plan

# 1. Executive Summary

Provide a brief overview of the project, including its title, purpose, and value. Summarize the key objectives, scope, and benefits to the organization and stakeholders.

**Project Title**: AI-Driven Transformation for Enhanced Security, Customer Engagement, and Operational Excellence at ABC Bank

**Project Overview**: This project aims to use Artificial Intelligence (AI) and Machine Learning (ML) to improve banking operations at ABC Bank. The goal is to make banking faster, safer, and more customer-friendly.

**Value Proposition**:

* Speed up loan approvals and customer support
* Detect fraud in real-time
* Provide personalized banking services
* Enhance security with face recognition and image analysis
* Gain valuable insights from customer feedback

**Key Deliverables**:

* AI models for fraud detection, loan approvals, and customer segmentation
* AI-driven customer support system
* Chatbots
* Fraud detection
* Image recognition for security
* Text analytics for better customer feedback management

# 2. User Persona Details

Details of key users involved in the project, their roles, and the goals they aim to achieve. It also addresses their specific information needs and the challenges they may face during the project.

**Audience**: [Describe the key users for the project]

**Role**: [What position or responsibility do they hold]

**Goals**: [What objectives do they have that your project will help achieve]

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| --- | --- | --- |
| Audiences | Roles | Goals |
| Stakeholders | Stakeholders | Someone who will be impacted because of the projects |
| Bank Customers | Customer | Want faster services, secure banking, expect quick loan approvals, personalized financial advice, and instant support. |
| Bank Employees | Employees | Leverage on AI and ML tools to help with fraud detection and customer support, and also requires automation to reduce manual tasks and improve decision-making |
| IT and Security Teams | IT and Security Teams | Require AI-powered fraud detection, risk management and security enhancements |

# 3. SMART Project Goals

1. **Goal 1**: [Clearly define your SMART (Specific, Measurable, Achievable, Relevant, Time-bound) goal that outlines specific outcomes.]

**Fraud Detection Enhancement:**

* Specific: Implement an AI model to detect suspicious transactions
* Measurable: Achieve at least 90% accuracy in fraud detection
* Achievable: Use machine learning models trained on real banking data
* Relevant: Helps reduce financial losses and improve security
* Time-bound: Deploy within 6 months

**AI-Powered Customer Support**

* Specific: Develop a chatbot for instant customer queries
* Measurable: Reduce customer wait times by 50%
* Achievable: Train chatbot with real customer interactions
* Relevant: Enhances customer experience and reduces support workload
* Time-bound: Launch in 4 months

**Loan Approval Automation**

* Specific: Use AI to assess loan applications quickly
* Measurable: Approve 80% of loan applications within minutes
* Achievable: Train AI with past loan data and approval criteria
* Relevant: Speeds up banking services and improves customer satisfaction
* Time-bound: Implement within 5 months

**Security Enhancement with Image & Face Recognition**

* Specific: Use AI to monitor branch security with image analysis
* Measurable: Improve security threat detection by 70%
* Achievable: Integrate face recognition and anomaly detection models
* Relevant: Enhances safety for customers and employees
* Time-bound: Roll out in 8 months

2. **Goal 2**: [Another SMART goal relevant to the project's overall aim.]

**AI-Driven Banking Transformation:**

* Specific: Implement AI and ML across ABC Bank’s core operations to enhance efficiency, security, and customer experience.
* Measurable: Achieve at least a 30% improvement in operational efficiency, 50% reduction in fraud-related losses, and 40% faster response times for customer queries.
* Achievable: Leverage AI models for fraud detection, customer segmentation, loan approvals, and automated support.
* Relevant: Aligns with the bank’s goal to modernize its services, improve security, and enhance customer satisfaction.
* Time-bound: Implement key AI solutions and measure impact within 12 months.

# 4. Project Plan: Timeline, Tasks, and Resource Allocation

This section provides an overview of the project plan, combining the timeline, key tasks, and resource allocation.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Milestone | Task Name | Description | Start Date | End Date | Owner | Priority (MoSCoW)(Must-Have,Should-Have,Could-Have,Won't-Have | Status |
| Milestone 2 | Task 1 | Create Azure ML resource and compute. | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Task 2 | Register fraud dataset (fraud\_dataset.csv) as a tabular data asset. | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Task 3 | Preprocess data: clean missing values and normalize data. | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Task 4 | Configure categorical metadata and encode variables. | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Task 5 | [Split data into training and testing sets. | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
|  | Task 6 | Train a Boosted Decision Tree model. | [19/02/2025] | [19/02/2025] | Azrin | Must Have |  |
|  | Task 7 | Tune hyperparameters for optimal performance. | [19/02/2025] | [19/02/2025] | Azrin | Must Have |  |
|  | Task 8 | Evaluate model metrics (accuracy, precision, recall). | [19/02/2025] | [19/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Milestone 3 | Task 1 | [Brief description of the task] | [20/02/2025] | [20/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |
| Task 2 | [Brief description of the task] | [20/02/2025] | [20/02/2025] | Azrin | Must Have | [Not Started/In Progress/Completed] |