

Project Design Phase-II

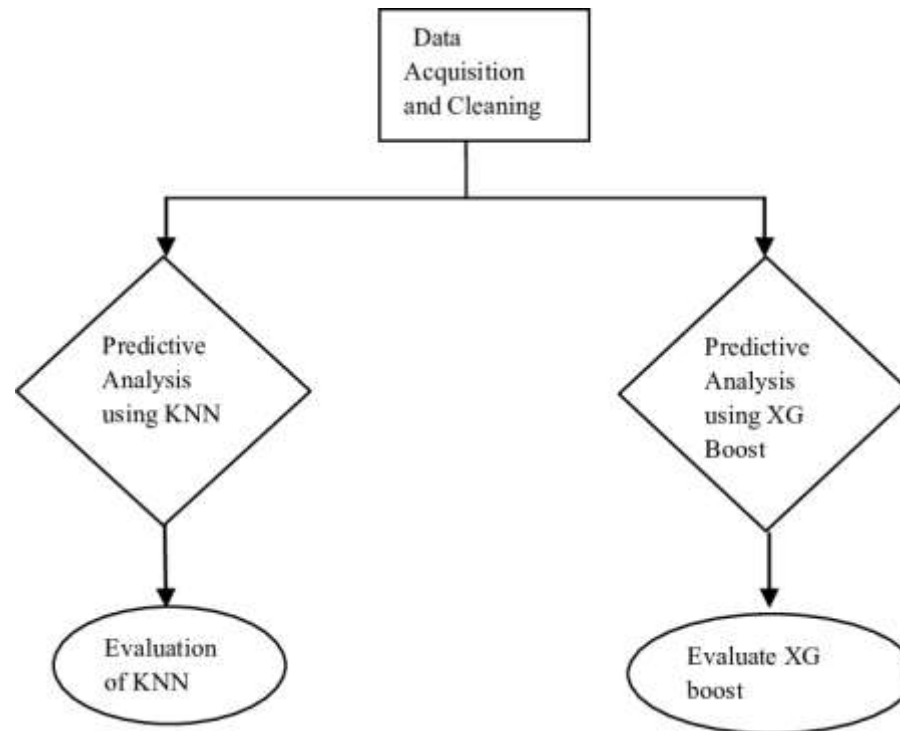
Data Flow Diagram & User Stories

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| Project Name | Customer Churn Prediction |

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example:



User Stories

| Functional Requirement (Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|--|-------------------|--|---|----------|------------|
| Customer Segmentation for Churn Analysis | CHURN-001 | As a business analyst, I want to be able to predict customer churn accurately so that the company can take proactive measures to retain valuable customers. | <ol style="list-style-type: none"> The system should be able to analyze historical customer data, including but not limited to transaction history, customer interactions, and feedback. The predictive model should be based on machine learning algorithms capable of identifying patterns and trends indicative of potential churn. The system should provide a confidence score or probability for each customer indicating the likelihood of churn. Users should be able to easily access and interpret the churn prediction results through a user-friendly interface or dashboard. The predictive model should be regularly updated with new data to ensure its accuracy and relevance. The system should allow users to customize parameters and input data for the churn prediction model based on specific business needs. Integration with existing customer relationship management (CRM) systems should be seamless for real-time analysis and action. The system should generate alerts or notifications when a high-risk customer is identified, enabling timely intervention. | High | Sprint-1 |
| Customer Segmentation for Churn Analysis | CHURN-002 | As a marketing manager, I want the system to segment customers based on various characteristics, so I can tailor retention strategies to specific customer groups.. | <ol style="list-style-type: none"> The system should allow segmentation based on demographic information, purchase history, engagement levels, and other relevant factors. Users should be able to visualize customer segments through charts and graphs for better understanding. The system should provide insights into the characteristics that contribute most to the likelihood of churn within each segment. | Medium | Sprint-1 |
| Customer Segmentation for Churn Analysis | CHURN-003 | As a customer support representative, I want the system to automatically trigger targeted communication to at-risk customers, so I can address their concerns and prevent churn.. | <ol style="list-style-type: none"> The system should integrate with communication channels (e.g., email, SMS) to send personalized messages to identified at-risk customers. Users should have the ability to customize communication templates and schedules. The system should track the effectiveness of communication in terms of customer retention. | High | Sprint-1.2 |
| Customer Segmentation for Churn Analysis | CHURN-004 | As a data scientist, I want to continuously improve the accuracy of the churn prediction model by incorporating advanced machine learning techniques and feedback from previous predictions. | <ol style="list-style-type: none"> The system should allow the integration of new machine learning algorithms for churn prediction. Users should have access to a feedback mechanism to validate and improve the accuracy of predictions. The system should automatically retrain the model periodically to incorporate the latest data and insights. | High | Sprint-1.3 |

