Data Collection and Preprocessing Phase

Date	June 2024
Team ID	740006
Project Title	Predictive Modeling for H1-B Visa Approval Using Machine Learning
Maximum Marks	2 Marks

Data Collection Plan & Raw Data Sources Identification Template

To establish a comprehensive data collection plan and identify raw data sources for the H1-B visa approval process. This will ensure meticulous data curation and integrity, facilitating informed decision-making in every analysis and decision-making endeavor.

Data Collection Plan Template for H1-B Visa Approval

Section	Description
Project Overview	Aims to improve the H1-B visa approval process by analyzing key factors such as application volume, approval rates, processing times, policy changes, and applicant demographics. The goal is to identify bottlenecks, streamline procedures, and provide more transparency and predictability in the approval process.
Data Collection Plan	Data will be collected from various sources including USCIS application databases, historical approval and rejection rates, processing time records, policy change announcements, demographic information of applicants, and feedback from applicants and employers.
Raw Data Sources Identified	Gathering data from USCIS application and approval databases, historical records of visa processing times, official announcements and updates on policy changes, demographic information from applicant profiles, surveys and feedback from applicants and employers, and third-party immigration statistics and reports.

Raw Data Sources Template for H1-B Visa Approval

Source Name	Description	Location/URL	Format	Access Permissions
USCIS Application Data	Detailed records of H1-B visa applications, including application dates, applicant details, employer information, and outcomes.	USCIS Data Hub	CSV, Excel	Public
Historical Approval Rates	Historical data on approval and rejection rates for H1-B visas.	USCIS H-1B Reports	PDF, Excel	Public
Processing Time Records	Average processing times for H1-B visa applications over different periods.	USCIS Processing Times	Web page	Public
Policy Changes	Official announcements and detailed records of policy changes affecting H1-B visa processing.	Federal Register	Web page, PDF	Public

Applicant Demographics	Data on demographics of H1-B visa applicants, including nationality, education level, and field of employment.	USCIS Annual Report	PDF, Excel	Public
Employer Feedback Surveys	Surveys and feedback from applicants regarding their experience with the H1-B visa process.	Internal Company Surveys	CSV, Excel	Private (with access)
Third-Party Immigration Reports	Reports and studies from third-party organizations on H1-B visa trends and statistics.	Migration Policy Institute	PDF, Web page	Public