

Data Collection and Preprocessing Phase

Date	15 March 2024
Team ID	Team-738168
Project Title	Cognitive Care: Early Intervention for Alzheimer's Disease
Maximum Marks	2 Marks

Data Collection Plan & Raw Data Sources Identification Template

Elevate your data strategy with the Data Collection plan and the Raw Data Sources report, ensuring meticulous data curation and integrity for informed decision-making in every analysis and decision-making endeavor.

Data Collection Plan Template

Section	Description
Project Overview	<p>Overview:- Alzheimer's disease (AD) is a progressive and irreversible neurological disorder that affects the brain, leading to memory loss, cognitive impairment, and changes in behavior and personality. It is the most common cause of dementia among older adults and is characterized by the buildup of abnormal protein deposits in the brain, including amyloid plaques and tau tangles. By using deep learning models like Xception to analyze medical imaging data, it may be able to identify early signs of Alzheimer's disease before symptoms become severe. This can help healthcare providers to provide early treatment and support for patients and their families, ultimately leading to better outcomes for all involved.</p> <p>Objective:-</p> <ul style="list-style-type: none"> ● Is to develop an AI model for early and accurate detection of Alzheimer's disease. ● Improve the sensitivity of cognitive assessments by leveraging transfer learning techniques. ● Facilitate early intervention for individuals at risk for Alzheimer's disease..

Data Collection Plan	<ul style="list-style-type: none"> Search for the dataset which is related to Alzheimer's Diseases which will give us exact information of the diseases. Prioritize dataset which contain 4 stages of diseases ie.['MildDemented' 'ModerateDemented' 'NonDemented' 'VeryMildDemented']
Raw Data Sources Identified	<p>The raw data sources for this project include datasets obtained from Kaggle the popular platforms for data science competitions and repositories. The provided sample data represents a subset of the collected information, encompassing variables such as 'MildDemented' 'ModerateDemented' 'NonDemented' 'VeryMildDemented'</p> <p>.</p>

Raw Data Sources Template

Source Name	Description	Location/URL	Format	Size	Access Permissions
Dataset	The dataset comprises Alzheimer's disease details which contain ('MildDemented' 'ModerateDemented' 'NonDemented' 'VeryMildDemented')	https://www.kaggle.com/datasets/tourist55/alzheimers-dataset-4-classes-of-images	CSV	36GB	Public