

Z Care

Supervised by:
Dr. Esraa Elhariri
Dr. Asmaa Hashem



TABLE OF CONTENTS Care

01.

Introduction

02.

Problem Definition

03.

Objective and
Motivation

04.

Related Work

05.

Project Planning

06.

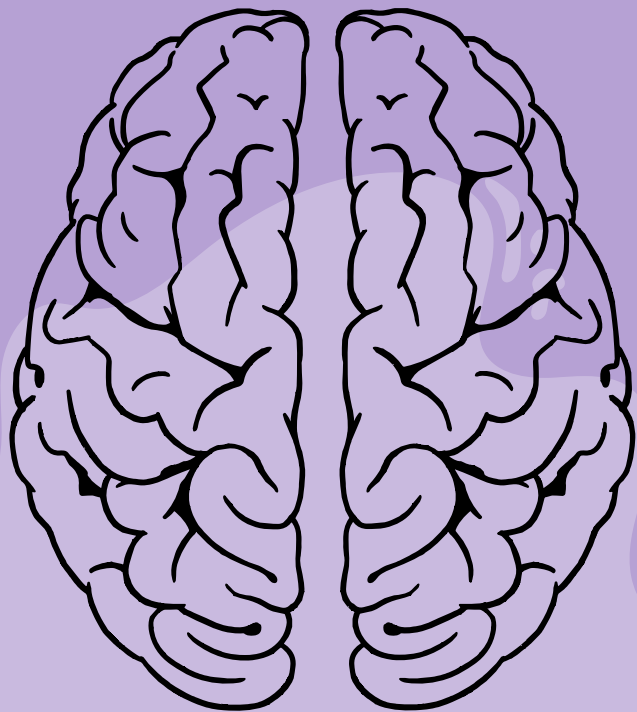
Proposed System

07.

Conclusion

08.

Our team

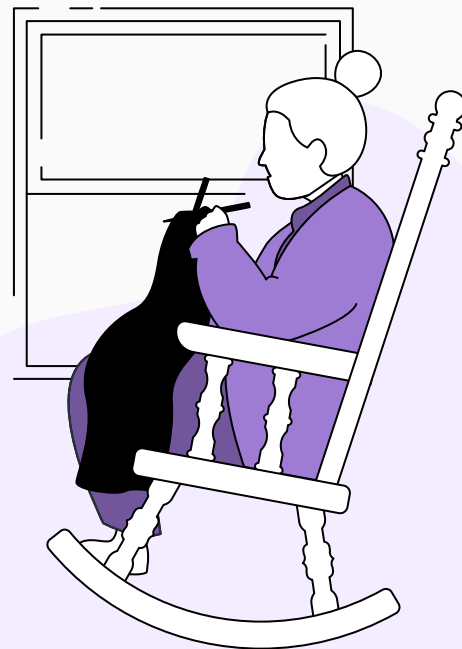


Alzheimer:

A slowly progressing, but devastating disease.

01.

Introduction



INTRODUCTION

- ✘ Dementia results from a variety of diseases and injuries that primarily or secondarily affect the brain.
- ✘ A person diagnosed with Alzheimer's could suffer from various syndromes including memory efficiency decreases, speaking difficulties, lack of attention, and a decline in the quality of lifestyle.



00 million

1 million





02.Problem Definition



Problem Definition



Alzheimer's disease makes you
alive but not.

when symptoms start to appear we
face another problem which is
related to the caregiver

The caregiver needs to be
with the patient all the
time.



Z care

healthcare providers have been
successful in helping people.



03. **Project** objective

Project objective



Developing an automated helpful system.

Diagnose Alzheimer's disease in its early stages Accurately using:

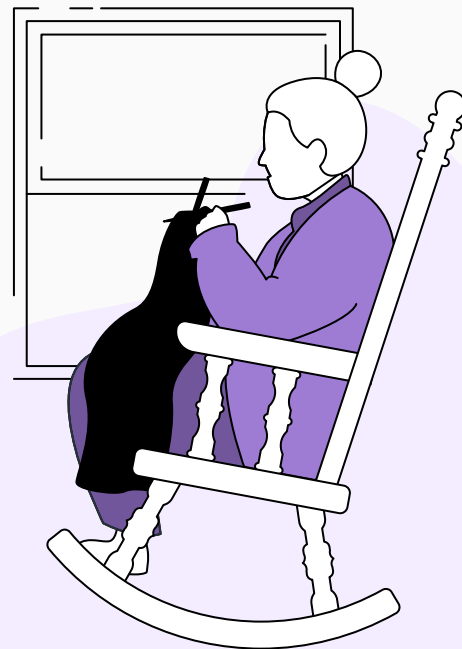
Deep learning would give us the ability to

- ✧ Slow the disease progression with medicine and exercises.
- ✧ Maintain mental function

Make it easier for caregivers to take care of the patient

04.

Related Work



Accuracy 66.7%

propose a framework that can diagnose AD. Using MRI, FDG-PET, CSF, & genetic features, with Hybrid (CNN & RNN).

Weiming Lin.2021

predict an early diagnosis of Alzheimer's Disease using sMRI & fMRI data with Using ShufffleNet & PCANet.

Yu Wang et al.2021

Shangran Qiu.2022

Differential diagnosis of Alzheimer's disease and other dementia etiologies. Using MRI, FDG-PET, CSF, & genetic features, with CNN.

May D. Wang.2021

Distinguish between 3 stages of AD (CN, MRI, AD) using MRI, SNPs & HER with 3D-CNN, SDAE & Sallow Models(ANN, DT, RF, KNN).

Zhou, P. et al. 2020

predict AD using PET and MRI images and distinguish between severity using CNN and SVM

Accuracy 69.2%

0.78 for Accuracy

Accuracy of 87%

Accuracy of 91 %

early detection of Alzheimer's Disease
using MRI, PET & CSF data with Using
SAE,DBM & SVM

fnagi.2019



Shen et al.2019

Hybrid model of DBN & CNN is better
than traditional approaches for
classification 4-stages of AD. Using MRI
& EGG with(DBN & CNN) , SVM & MLP



Shen et al.2019

distinguish AD From mild cognitive
impairment using PET data Using Deep
Belief Network

Accuracy of 86%

Accuracy of 91 %

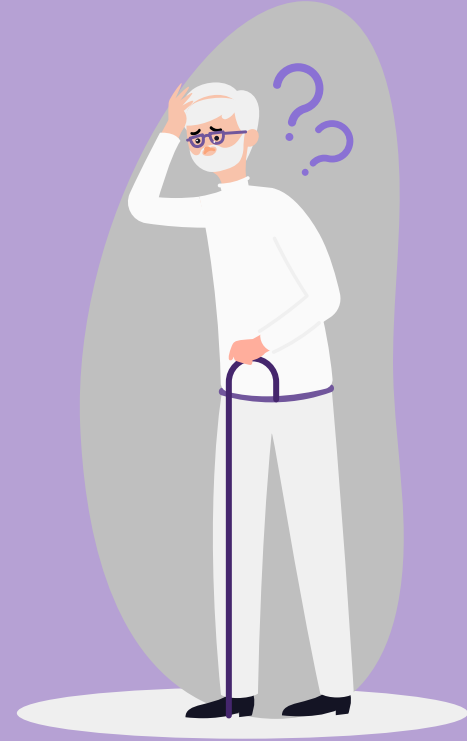
predict an early diagnosis of Alzheimer's
Disease using MRI data with Using
autoencoder Accuracy of 91 %

Ju et al.2017



05.

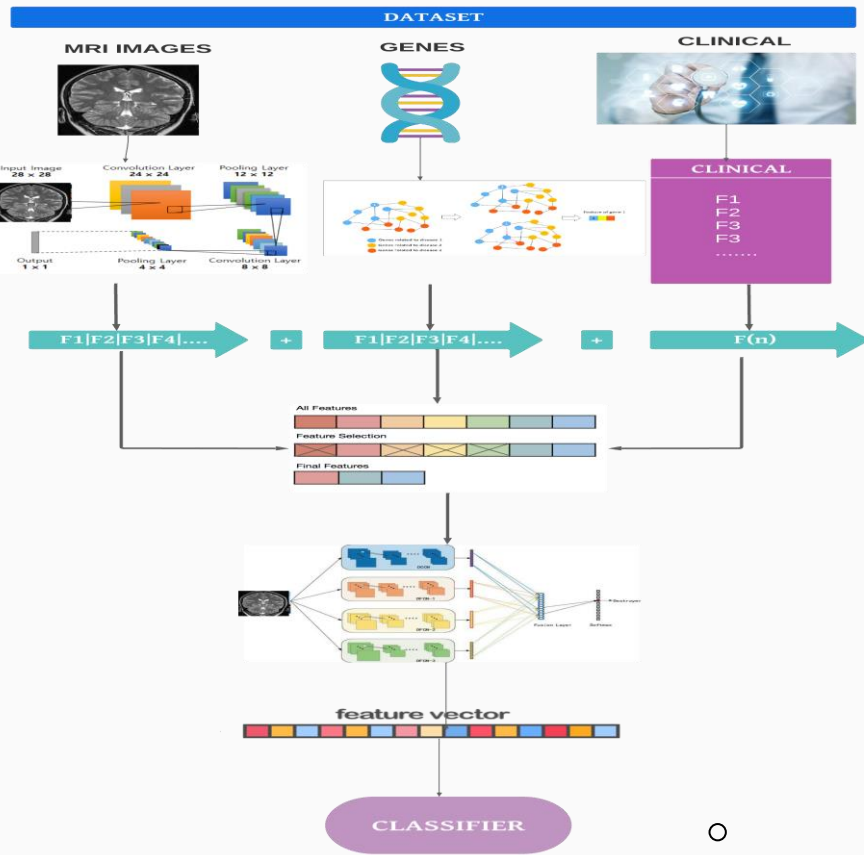
Project planing



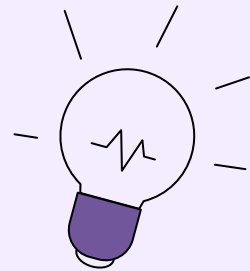
06.

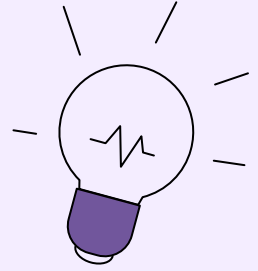
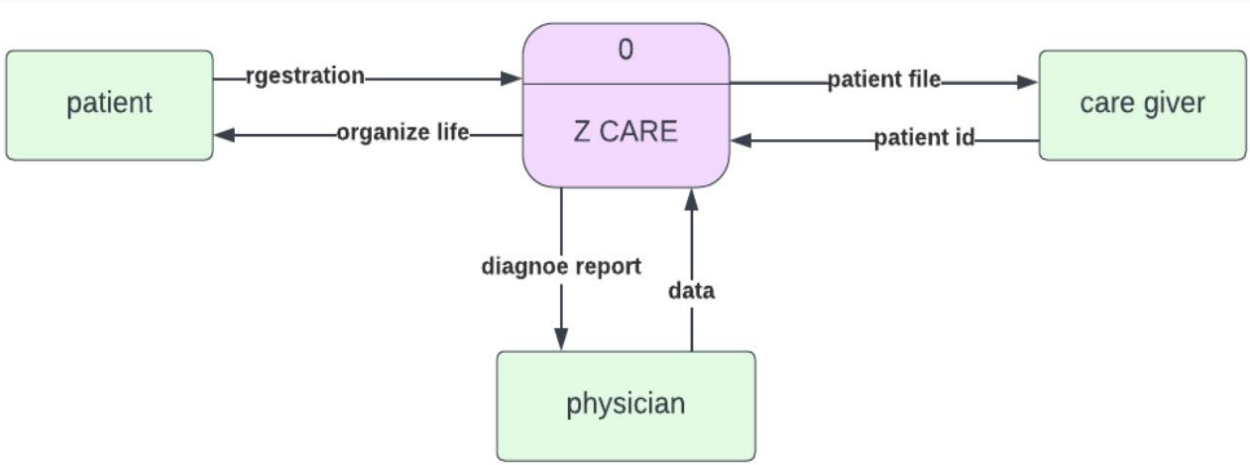
Proposed System



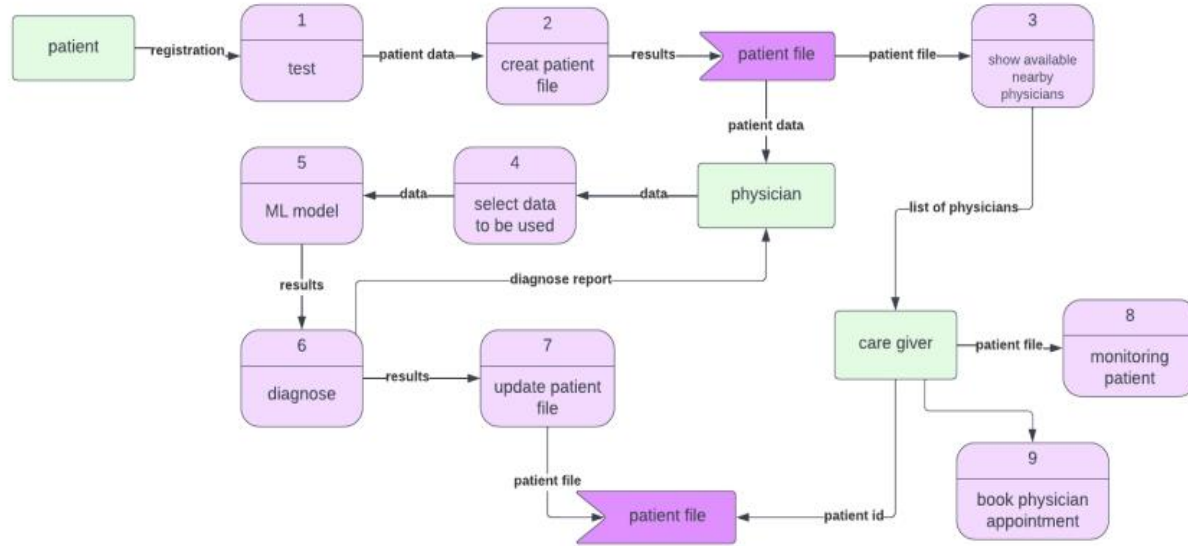


—ML Framework

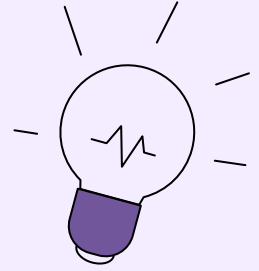


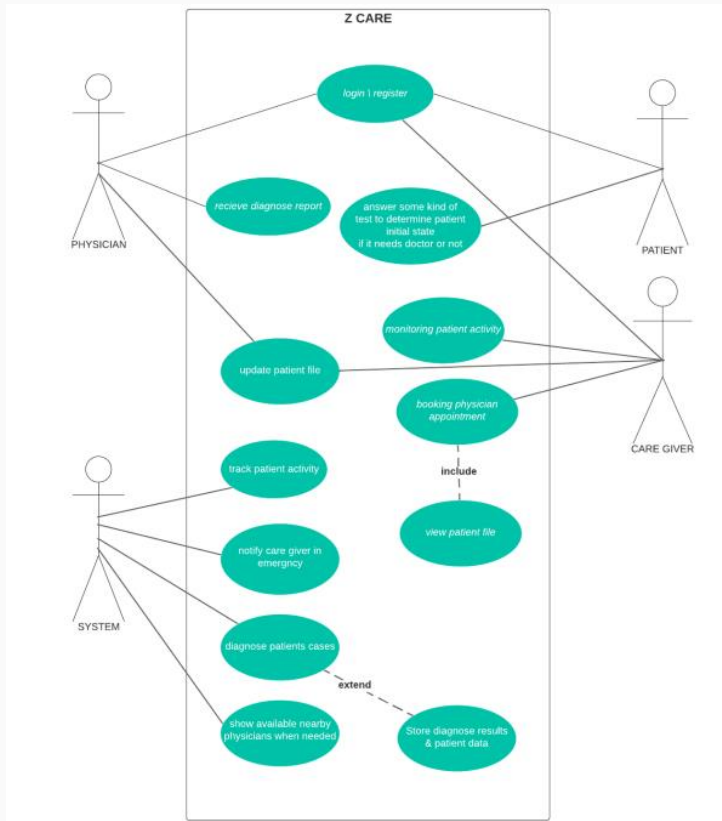


–Context Diagram

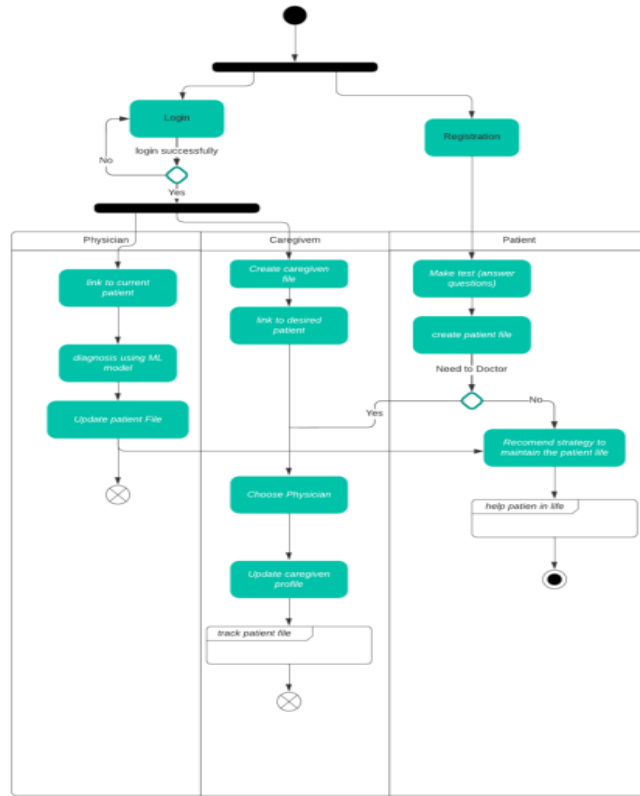


—DFD level 0 Diagram

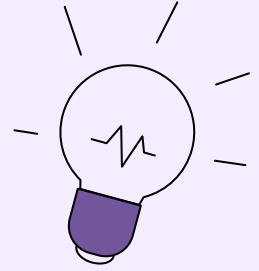


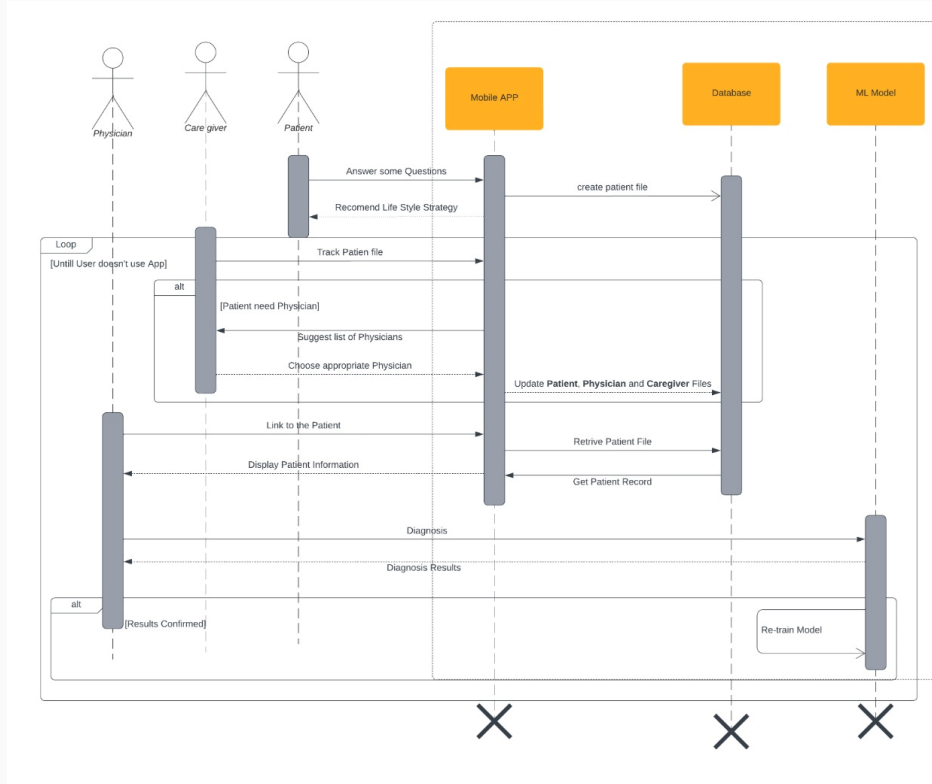


–Use Cases Diagram

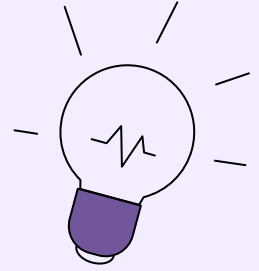


—Activity Diagram





—Sequence Diagram



OUR Team



- ✕ **Yasmeen Saad**
- ✕ **Mohamed Ashraf**
- ✕ **Shrouk Nasser**
- ✕ **Sameul Adel**
- ✕ **Mohamed Yasser**

THANKS!

