

# ALZHEIMER

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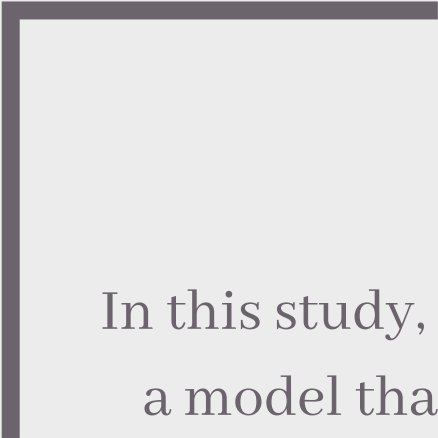





## B A C K G R O U N D

Alzheimer's is a progressive disease, where dementia symptoms gradually worsen over a number of years. Image Processing plays an important role in the early detection of Alzheimer's disease so that patients can be prevented before irreversible changes occur in the brain.

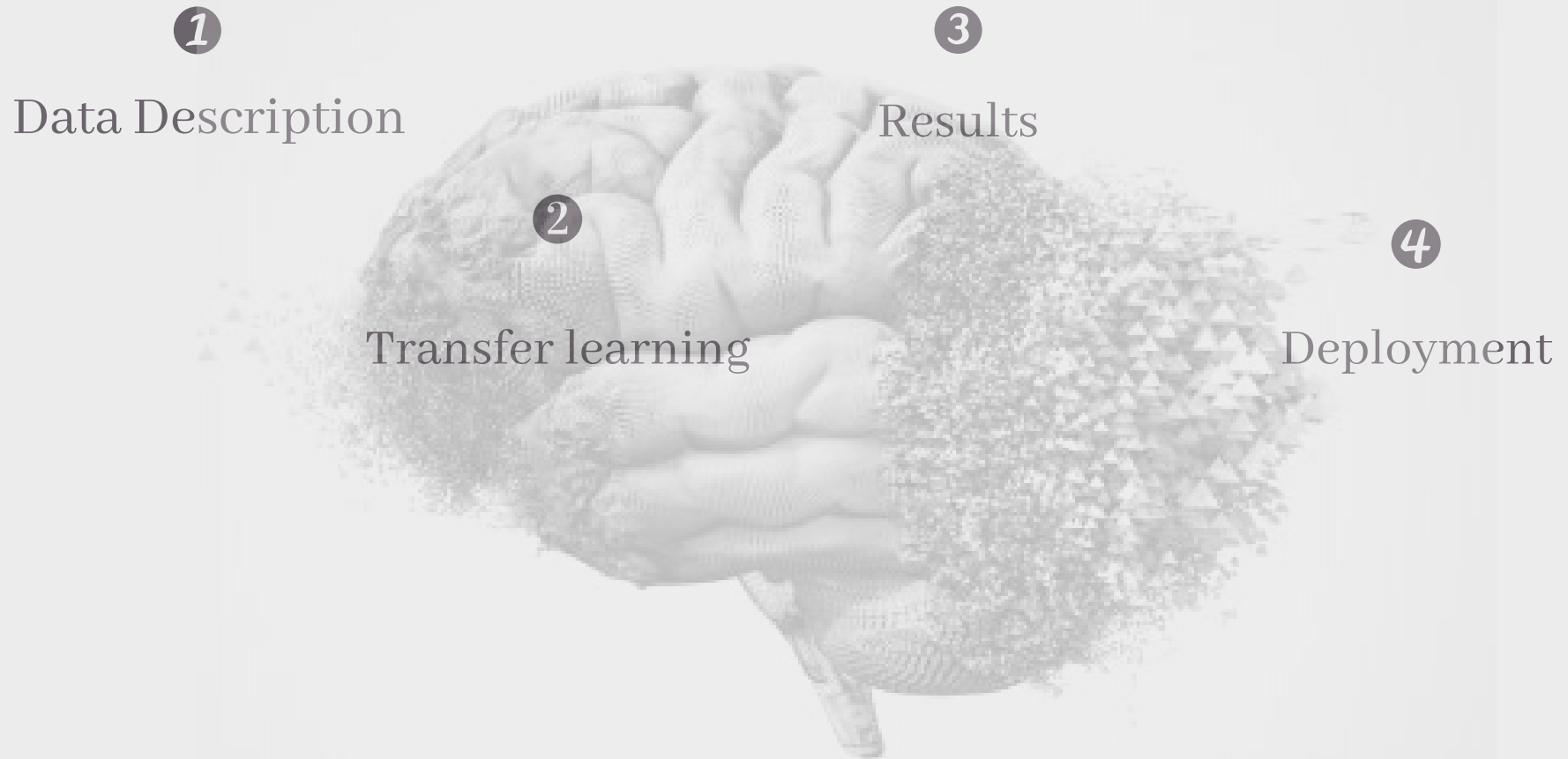
## Problem statement

A thick, dark grey L-shaped line that starts with a horizontal segment extending to the left and then turns 90 degrees to continue vertically upwards.A thick, dark grey L-shaped line that starts with a horizontal segment extending to the right and then turns 90 degrees to continue vertically downwards.

In this study, we have the problem of Alzheimer's disease. We built a model that detects Alzheimer's disease and its progression by inserting an x-ray.

A thick, dark grey L-shaped line that starts with a vertical segment extending upwards and then turns 90 degrees to continue horizontally to the right.

# METHODOLOGY



# Data Description

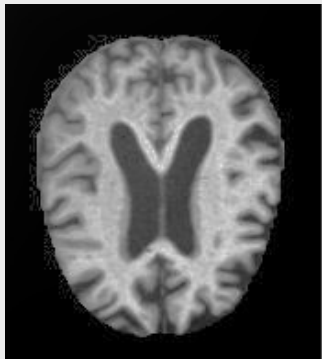
## Resource

Kaggle with a total of 6400 images

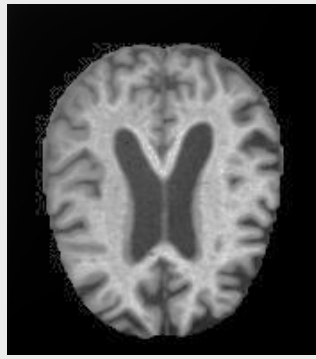
## Split dataset

Train = 4897 , Validation = 864 , Test = 639

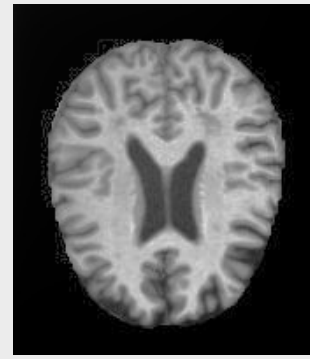
## 4 class of Images



MODERATEDEMENTED



MILDDEMENTED



NONDEMENTED



VERYMILDDEMENTED

# Transfer learning

A dark gray L-shaped bar is positioned in the top-left corner of the slide, extending horizontally and vertically.

- mobilenet\_v2
- VGG19
- VGG16
- InceptionV3

## Results

	Train	Validation
Mobilenet_v2	0.95	0.82
VGG19	0.81	0.77
VGG16	0.89	0.84
InceptionV3	0.86	0.76

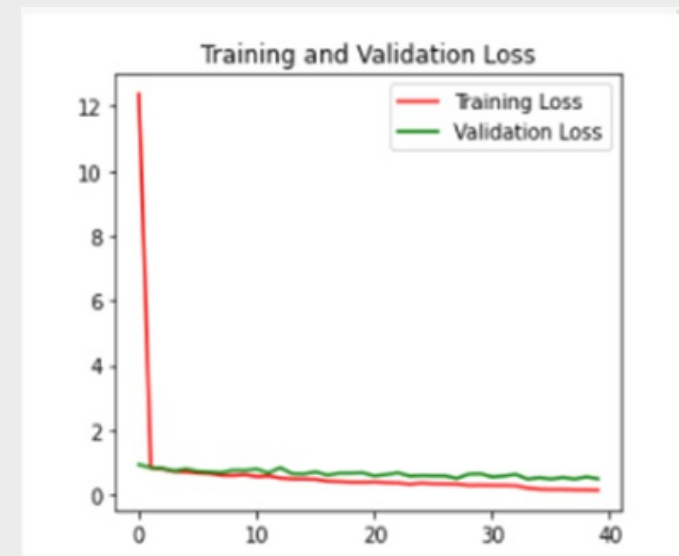
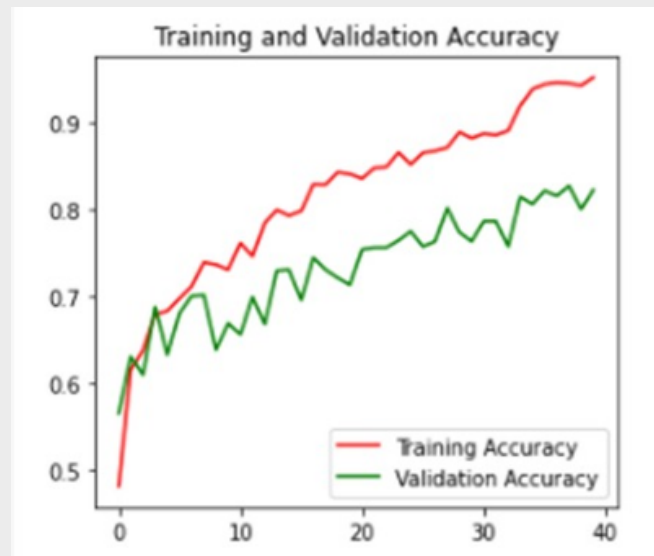


# The best model

## Mobilenet\_v2

Accuracy score :

- Training : 0.95
- Validation : 0.82
- Test : 0.83





Deployment

## Tools



## Future work

A dark gray L-shaped bar is positioned to the right of the 'Future work' header. It consists of a horizontal segment extending from the left and a vertical segment extending upwards from the right end of the horizontal segment.

- Improve the model and website.
- present a the project proposal the model for saudi alzheimer's disease association.

## CONCLUSION

A dark gray L-shaped decorative bar is positioned to the right of the 'CONCLUSION' header. It consists of a horizontal bar extending from the left and a vertical bar extending upwards from the right end of the horizontal bar.

Applications of automated classification techniques using machine learning (ML) and artificial intelligence (AI) are constantly becoming more accurate than manual classification.

So we proposed a system that detects and classifies alzheimer's using deep learning algorithms.

THANKS..