

An Initiative by "The Last Centre"



Echelon Institute of Technology

Depression Detection

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Semester : 6

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Introduction

Depression (major depressive disorder) is a common and serious medical illness that negatively affects how you feel, the way you think and how you act. Fortunately, it is also treatable. Depression causes feelings of sadness and/or a loss of interest in activities you once enjoyed. It can lead to a variety of emotional and physical problems and can decrease your ability to function at work and at home.



Technology Used



Hardware and Software Requirements

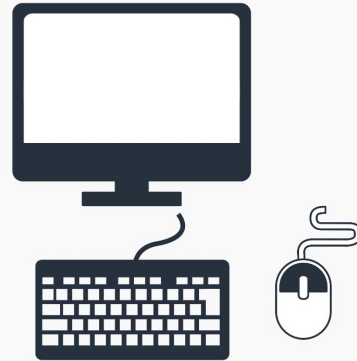
- Atleast Windows 10
- 64-bit operating system
- Jupyter
- Internet Connectivity



Hardware vs Software



Hardware

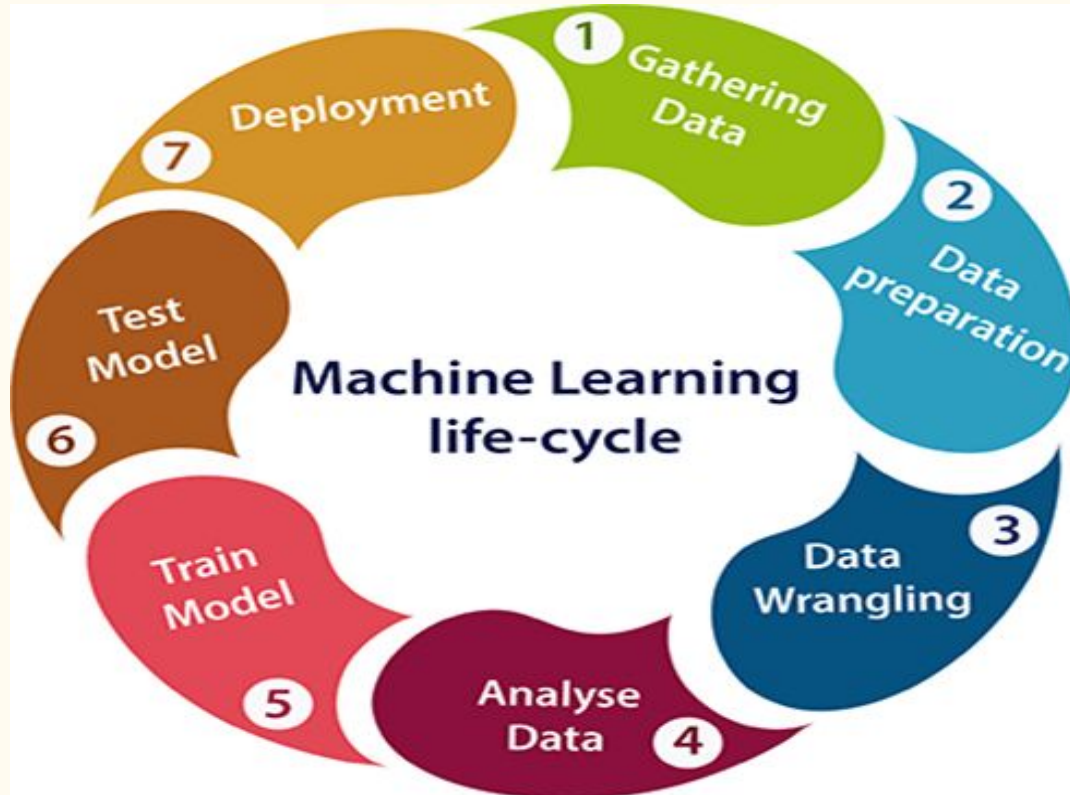


Software



Modules

Data Flow Diagram



Benefits

- Identifying a mental health disorder early can slow its progress
- Addressing depression can improve a person's physical health
- By acknowledging the problem, helpful treatments can begin
- Anyone can experience depression at any point in life
- Social stigma surrounding mental illnesses discourages people from getting help
- Mental health conditions like depression can lead to drug and alcohol abuse
- Untreated depression can lead to suicide

Screenshots

```
train = pd.DataFrame()
train['label'] = y_train
train['text'] = X_train

def predict_category(s, train=X_train, model=model):
    pred = model.predict([s])
    return pred[0]
```

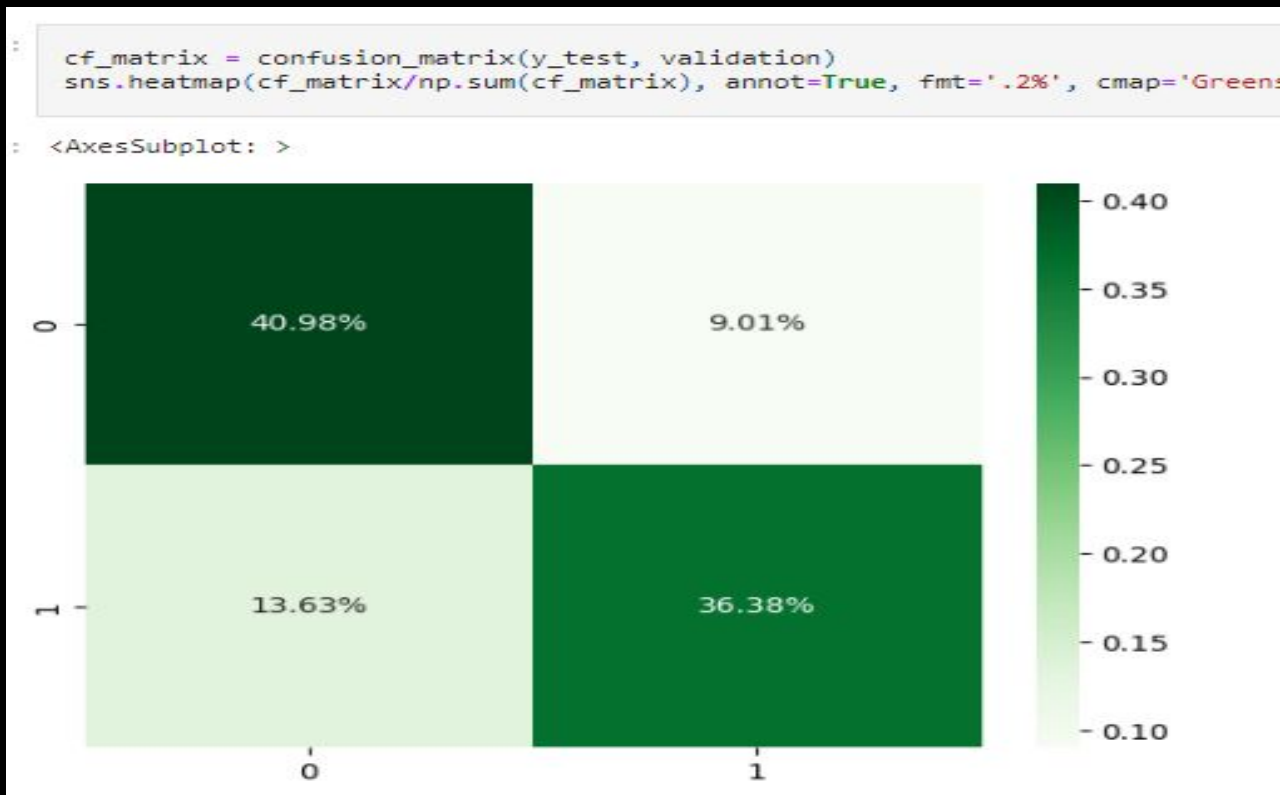
```
predict_category("i wanna shot myself")
```

0

```
predict_category("i love you")
```

1

Screenshots



Screenshots

```
validation = model.predict(X_test)
```

```
validation1 = model.predict(X_train)
```

```
from sklearn.metrics import accuracy_score  
accuracy_score(y_train, validation1)
```

```
0.843316447368421
```

```
from sklearn.metrics import accuracy_score  
accuracy_score(y_test, validation)
```

```
0.7736
```

Future Scope

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Conclusion

References

1. Orabi, A. H., Buddhitha, P., Orabi, M. H., & Inkpen, D. (2018, June). Deep learning for depression detection of twitter users. In Proceedings of the fifth workshop on computational linguistics and clinical psychology: from keyboard to clinic (pp. 88-97).
2. Islam, M. R., Kabir, M. A., Ahmed, A., Kamal, A. R. M., Wang, H., & Ulhaq, A. (2018). Depression detection from social network data using machine learning techniques. Health information science and systems, 6, 1-12.
3. Chiong, R., Budhi, G. S., Dhakal, S., & Chiong, F. (2021). A textual-based featuring approach for depression detection using machine learning classifiers and social media texts. Computers in Biology and Medicine, 135, 104499.



Thank You

