**Course: Computer Science Module: 6006CEM Machine Learning and Related Applications**

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**Coventry GitHub Repository URL** or **Coventry OneDrive URL** (mandatory):

< <https://github.coventry.ac.uk/iftikhars/9789180-SI-s1>>

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# Introduction

Unfiltered work

This project aims to look at whether people are more likely to commit suicide by the biological factor of age. It does not focus on other factors so it could be determined that excluding all other factors is it possible that humans by only taking gender in account are most likely to commit suicide at a certain age.

Depression can be genetic.

Depression is associated with suicide.

The likely hood of committing Suicide could also be inherently genetic.

The motivation behind this project was to study the age at which most suicides occur in males and females. This research could later be used to further study why people at a certain age are most likely to commit suicide the most. This would help in giving help to the said people of the specified age group in a timely manner so that suicide could be prevented in that age group.

This project will also analyse whether people are more likely to commit suicide as they grow older, if most suicides are committed at a certain age or there is no positive correlation between age and the number of suicides committed.

The dataset used in this project has been taken from Kaggle from the user Szamil [WHO Suicide Statics Dataset (WHO Suicide Statistics, 2021)](#KaggleDataSet).

The data belongs to World Health Organization (WHO).

The following aspects of the project will be looked at in this report in the given order.

1. The information on the dataset will be given.
2. The reasoning and techniques used to pre-process the data will be explained.
3. The Implementation of the models used, and related methods will be described.
4. The results will be presented and evaluated.
5. Related work will be looked at to cross reference the results.
6. Conclusion will be made on the obtained results.

After all this a reference list will be given which will be followed by Appendices.

# Related work

Unfiltered work:

Peoples work on the same dataset:

Regression problem:

<https://www.kaggle.com/venkatesh357/who-suicide-statistics-my-first-kaggle>

Regression problem:

<https://www.kaggle.com/richayadav07/python-bootcamp-part-3>

regression problem:

<https://www.kaggle.com/danielmiskell2/suicide-in-the-uk>

or could we use

# Dataset

# Pre-processing

# Implementation

# Results

# Evaluation

The number of Suicides committed between the years 2009 and 2018 have increased in all age groups. Suicide rates of people aged 25 to 44 have overtaken those of adults aged 65 and beyond in recent years. Suicide was the second highest cause of mortality among the youth and young adults (ages 10-34), fourth highest in adults aged (45-54) and eighth highest in adults aged (55-64) in 2019 (Underlying Cause of Death, 1999-2019 Results Causes of deaths by age and sex., 2021).

# Conclusion

# References

Kaggle.com. 2021. *WHO Suicide Statistics*. [online] Available at: <https://www.kaggle.com/szamil/who-suicide-statistics > [Accessed 5 October 2021].

Centers for Disease Control and Prevention. 2021. *Underlying Cause of Death, 1999-2019 Results Causes of deaths by age and sex.*. [online] Available at: <http://wonder.cdc.gov/ucd-icd10.html> [Accessed 7 October 2021].

# Appendix A

< A suggested checklist for you, for full details please refer to the coursework brief >

1. The following naming convention is used for the Coventry GitHub Repository and Coventry OneDrive

StudentID-Initials-s1

For example, for a student Alan Turing whose student ID was 1234567, it should be

1234567-AT-s1

Failing to follow the naming convention may delay the release of marks and feedback for your coursework.

1. **Coventry** GitHub Repository URL **or** **Coventry** OneDrive URL: added to the top of this report
   1. Coventry GitHub Repository includes:

* URL of the selected dataset(s) included in README
* The original selected dataset(s)
* Source-code (.ipynb)
* Demonstration video (.mp4)
  1. Coventry OneDrive folder includes:
* URL of the selected dataset(s) included in a separated text file
* The original selected dataset(s)
* Source-code (.ipynb)
* Demonstration video (.mp4)

1. Source-code added **as text** in Appendix B (below)
2. Submission in the form of a **Word** document. *\*\*Other format is not accepted.*

# Appendix B

< **Replace** this instruction with all the Programming Code for the coursework.

Make sure you have highlighted and referenced any code not written by you >

< **DO NOT** use screenshots of your code here. Your code should be presented **as text**.

There are many good tools to help you format your code such as <http://hilite.me> >

< You can select and copy **all code at once** in a notebook by:

1. Graphical user interface, text, application

   Description automatically generatedclicking in any cell of the notebook, the cell will be highlighted in green as below
2. Graphical user interface, text, application

   Description automatically generatedthen press Esc on your keyboard, the selected cell will be highlighted in blue as below
3. now you can Ctrl+A to select all cells of the notebook

Graphical user interface, text, application

Description automatically generated

1. and then copy and paste as normal to some tool, such as hilite.me above, make sure you select a correct language (Python), then click Hightlight

Graphical user interface, text, application

Description automatically generated

1. you now can select the text in the Preview and copy and paste it over to this Appendix

Graphical user interface, text, application, email

Description automatically generated

1. finally, remember to remove all text in this instruction for this Appendix >