Mid-term evaluation

Total marks - 100 marks

No submission or late submission (without special permission) - 0 marks

Rules

Assignment opening date: 16 July 2022

Submission date: 23 July 2022

Extensions of time for submission: only the following categories are allowed

Category A

An illness that requires the student to miss all of his or her classes for 2 days or more

Category B

A period of grief for loss of a family member or friend

Category C

A family emergency

Philosophy driving our late policy has three goals

- Keep things fair
- Encourage good time-management
- Encouragement and appreciation of on time submission students.

How to deal with emergencies like a computer breakdown?

Submit a handwritten assignment: Write the solution you would take if you had access to a computer. You should write all the necessary steps and give reasons wherever necessary, and submit the assignment.

You will be asked to submit the computer-based outputs at a later date.

Task

I have assigned each one of you a separate data set (see Table 1). Develop a suitable model to predict the response variable using other necessary information available in the dataset.

Your report should include following information

1. EDA
2. Model selection and evaluation
3. Model comparison against several benchmark (eg: naive approach, etc) approaches
4. R codes related to your analysis
5. Conclusions

Final output: Report and video recording of a summary

The report should be submitted in PDF format.

Video: Prepare a 1 slide and present a summary within 3 minutes.

The allocation of datasets and tasks are as follows

Please inform the lecturer-in-charge if your index number is not listed in the above table.

Table 1: Allocation of datasets and tasks

Index no.	Dataset and R package	Response variable
GS/MSAS/001	MLDataR, PreDiabetes	HbA1C
GS/MSAS/002	MLDataR, care_home_incidents	CareHomeFail
GS/MSAS/004	MLDataR, thyroid_disease	FTI_reading (Do not use FTI_measured as an independent variable)
GS/MSAS/006	MLDataR, diabetes_data	DiabeticClass
GS/MSAS/009	MLDataR, heartdisease	HeartDisease
GS/MSAS/010	MLDataR, thyroid_disease	FTI_measured (Do not use FTI_reading as an independent variable)
GS/MSAS/011	MLDataR, PreDiabetes	Age_Diabetes
GS/MSAS/013	MLDataR, care_home_incidents	UnexpectedDeaths
GS/MSAS/017	MLDataR, thyroid_disease	tumor
GS/MSAS/022	MLDataR, diabetes_data	Obesity
GS/MSAS/023	MLDataR, heartdisease	Cholesterol
GS/MSAS/024	MLDataR, long_stayers	stranded.label