SCMS-SPPU

Programme	**M.Tech. Modeling & Simulation**		
Curriculum	**2022**	**Code**	**22-ML1**
AY	**2024-25**	**Name**	**Machine Learning 1**
Semester	**2**	**Examiner**	**Mihir Arjunwadkar**
Exam Session	**12/2024**	**Credits**	**4**

Name	**Surname**	**ID**	**CA**	**Total**	**A1**	**A2**	**CA1**	**A3**	**MP1**
			50	**120**	**20**	**20**	**30**	**20**	**30**
Aryan	Bhende	MT2401	30	70	10	8	20	10	22
Aalok	Dhekne	MT2402	22	51	10	11	10	0	20
Tanmay	Lonare	MT2405	31	74	10	11	20	10	23
Akshay	Patil	MT2407	29	69	10	6	21	10	22
Ayush	Gaikwad	MT2408	28	67	10	7	18	12	20
Amit	Dhumal	MT2409	29	69	10	6	20	10	23
Pratik	Bagale	MS2303	8	19	0	5	5	0	9
Yash	Gadbail	MS2403	32	75	16	7	20	10	22
Sakshi	Ladkat	MS2408	36	85	16	12	22	10	25
Vaishanav	Mankar	MS2409	32	76	16	12	16	10	22
Firdous	Shaikh	MS2417	43	101	16	16	27	15	27
Shreshta	Sutar	MS2419	28	65	8	7	18	10	22
Bhushan	Zade	MS2421	34	80	16	10	22	10	22

Assignment 1 20/1/2025

Total	Feedback
20	

Aryan	Bhende	MT2401	Late	10	See below. Submission same as MT2407?
Aalok	Dhekne	MT2402	Late	10	
Tanmay	Lonare	MT2405	Late	10	
Akshay	Patil	MT2407	Late	10	See below. Submission same as MT2401?
Ayush	Gaikwad	MT2408	Late	10	
Amit	Dhumal	MT2409	Late	10	
Pratik	Bagale	MS2303	Not submitted		
Yash	Gadbail	MS2403		16	See below
Sakshi	Ladkat	MS2408		16	See below
Vaishanav	Mankar	MS2409		16	See below
Firdous	Shaikh	MS2417		16	See below
Shreshta	Sutar	MS2419	Late	8	
Bhushan	Zade	MS2421		16	See below

Read, understand and follow, for example, this or a similar guide to summarization:
https://www.hunter.cuny.edu/rwc/handouts/the-writing-process-1/invention/Guidelines-for-Writing-a-Summary

English: Use, for example, Grammarly for grammar and sentence construction.

Nobody mentioned EDA …

See me personally if you have questions about evaluation or want personal feedback.

Please make it a point to submit assignments on time. If you have any difficulties or personal situations, kindly make it a point to discuss them with the instructor well ahead of the submission date.

Assignment 2 3/2/2025

			Total	Q1	Q2	Feedback
			20	**10**	**10**	
Aryan	Bhende	MT2401	8	8	0	Q1: Vertical lines in the plot is a nice touch!
Aalok	Dhekne	MT2402	11	6	5	Q1: We are necessarily using R for this course, not python. I am giving credit this time but not again during this course.
Tanmay	Lonare	MT2405	11	6	5	Q1: Never submit interpreter screen dump as your code. R code files better have the extension .r or .R.
Akshay	Patil	MT2407	6	6	0	Q1: Never submit interpreter screen dump as your code. R code files better have the extension .r or .R.
Ayush	Gaikwad	MT2408	7	7	0	
Amit	Dhumal	MT2409	6	6	0	Q1: Code dump: Why is the warning there?
Pratik	Bagale	MS2303	5	5	0	Q2 asks you to derive a formula and formulate the problem. The question does not ask you to submit a code (which you don't understand? – possibly written by ChatGPT / DeepSeek / Gemini / …?). Q1: Submission identical to MS2421?
Yash	Gadbail	MS2403	7	7	0	
Sakshi	Ladkat	MS2408	12	7	5	Q1: Codes must be submitted as plain text, not as PDF. If you wish to mix code with text, you might consider using Rmd.
Vaishanav	Mankar	MS2409	12	7	5	
Firdous	Shaikh	MS2417	16	9	7	Q2: Problem formulation is essentially correct but needs to be clearer.
Shreshta	Sutar	MS2419	7	7	0	
Bhushan	Zade	MS2421	10	5	5	Q1: We use savehistory() only to create code dumps from interactive sessions during classes. Submission identical to MS2303?

Common feedback for all

1. As was discussed in the class, Q2 asks you to **derive** the formula for the **perpendicular** distance of a point from a line, and then just **formulate** the fitting problem in terms of that distance -- but **not solve** it.

2. Codes must be well-structured, well-indented, human-readable and with adequate documentation. Codes are not the same as code dumps from the interpreter. R code files better have the extension .r or .R.

3. See the clustering dendrogram for Q1 code submissions: Submissions on the same branch that are to the left of the red line are too similar to one another. Please do not engage in plagiarism – it is very easy to detect and penalize.

Questions? See the instructor personally.

CA1 12/2/2025

Total	Code	Report
30	**15**	**15**

						Feedback
Aryan	Bhende	MT2401	20	10	10	Do not submit code dumps from the interpreter. Codes need to be readable and well-documented. Including relevant numbers and plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification.
Aalok	Dhekne	MT2402	10	10	0	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission.
Tanmay	Lonare	MT2405	20	10	10	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission. Including relevant numbers and plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification.
Akshay	Patil	MT2407	21	10	11	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission. Including relevant plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification.
Ayush	Gaikwad	MT2408	18	10	8	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission. Including relevant numbers and plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification.
Amit	Dhumal	MT2409	20	10	10	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission. Including relevant plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification.

Pratik	Bagale	MS2303	5	5	0	Do not submit code dumps from the interpreter. Codes need to be readable and well-documented. What does pivot_longer(…) do? What are your observations, insights, and conclusions from your EDA?
Yash	Gadbail	MS2403	20	10	10	Plots would look better with aspect ration = 1. Codes need to be readable and well-documented. Leading '>' copied from the interpreter cause errors. Including relevant numbers and plots in the report will make it more informative.
Sakshi	Ladkat	MS2408	22	12	10	Use .r or .R as extension for R code files. Codes need to be readable and well-documented. Hardcoding numbers like "26" can cause problems if code is ported to a different data set – here, "26" should be replaced with ncol(…). Including relevant numbers and plots in the report will make it more informative. Report should clearly state the observations and the conclusions drawn from them, with justification. " normally distributed " -- what? "some pattern" -- ??
Vaishanav	Mankar	MS2409	16	8	8	"#include<iostream> \\ using namespace std; \\ clear" -- ???? Which part of the submitted code dump is supposed to be your submission? Use .r or .R as extension for R code files. Codes need to be readable and well-documented. Report should clearly state the observations and the conclusions drawn from them, with justification.
Firdous	Shaikh	MS2417	27	14	13	Including relevant numbers and plots in the report will make it more informative.
Shreshta	Sutar	MS2419	18	10	8	Codes must be well-structured, well-indented, human-readable and with adequate documentation. Don't submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. Don't submit the savehistory() code dump as your submission. Visualizations need to cover entire dataset, not just a variable or two. Report should clearly state the observations and the conclusions drawn from them, with justification. It is not clear if your conclusions are correct.
Bhushan	Zade	MS2421	22	10	12	Create image files (pdf, png. jpg) through R itself and not as screenshots. Including relevant numbers and plots in the report will make it more informative. Why all those "nchar(…)" calls? Codes need to be readable and with adequate documentation.

Common feedback for all

Do not engage in plagiarism – it is very easy to detect and penalize.

Codes must be well-structured, well-indented, human-readable and with adequate documentation. DO NOT submit code or screen dump from interpreter as submission. Use .r or .R as extension for R code files. DO NOT submit the savehistory() code dump as your submission. (We use savehistory() only to create code dumps from interactive sessions during classes – just for your reference.)

Explore R markdown (.Rmd) as a way of creating reports through your codes.

Create image files (pdf, png. jpg) through R itself and not as screenshots.

Questions? See the instructor personally.

Assignment 3 17/3/2025			Total	Notes
			20	
Aryan	Bhende	MT2401	10	Different knn implementations in P1 and P2? knn implementations identical between MT2401, MT2407, MT2409? LLM submission?
Aalok	Dhekne	MT2402	0	Not submitted
Tanmay	Lonare	MT2405	10	Different knn implementations in P1 and P2? LLM submission?
Akshay	Patil	MT2407	10	Different knn implementations in P1 and P2? knn implementations identical between MT2401, MT2407, MT2409? LLM submission?
Ayush	Gaikwad	MT2408	12	
Amit	Dhumal	MT2409	10	Different knn implementations in P1 and P2? knn implementations identical between MT2401, MT2407, MT2409? LLM submission?
Pratik	Bagale	MS2303	0	Not submitted
Yash	Gadbail	MS2403	10	LLM submission?
Sakshi	Ladkat	MS2408	10	knn implementation identical to MS2419?
Vaishanav	Mankar	MS2409	10	knn implementation not according to specs. knn implementation identical to MS2421? LLM submission?
Firdous	Shaikh	MS2417	15	
Shreshta	Sutar	MS2419	10	knn implementation identical to MS2408? LLM submission?
Bhushan	Zade	MS2421	10	knn implementation not according to specs. knn implementation identical to MS2409? LLM submission?

1. Kindly acknowldge the LLM if you have used it for your submission. State the LLM’s contribution to your submission.
2. Even so, you should be able to explain what you have taken from your LLM.
3. LLMs will not be available at exam time.

Linear Regression Miniproject
26-27/3/2025

			Group	Total	Presentation	Submission	Notes
				30	**20**	**10**	
Yash	Gadbail	MS2403	1	**22**	15	7	Data not provided
Bhushan	Zade	MS2421	1	**22**	15	7	
Sakshi	Ladkat	MS2408	2	**25**	17	8	Data not provided
Vaishanav	Mankar	MS2409	3	**22**	15	7	Submission not received
Shreshta	Sutar	MS2419	3	**22**	15	7	
Firdous	Shaikh	MS2417	4	**27**	18	9	
Aryan	Bhende	MT2401	5	**22**	14	8	Classification done, not regression
Akshay	Patil	MT2407	5	**22**	14	8	
Aalok	Dhekne	MT2402	6	**20**	12	8	Classification done, not regression
Ayush	Gaikwad	MT2408	6	**20**	12	8	
Tanmay	Lonare	MT2405	7	**23**	15	8	
Amit	Dhumal	MT2409	7	**23**	15	8	
Pratik	Bagale	MS2303	8	**9**	6	3	Data not provided