

READ THIS FIRST

What this file is. A format template for the MCSP-079 project report of IGNOU M.Sc. (Data Science and Analytics). It gives a page order, the contents of each chapter, empty table shells and sentence frames. It contains no findings, numbers or results, because those can only come from your own data and code.

Where the structure comes from. The MSCDSA Programme Guide (SOCIS, January 2026, version 1) describes the project as applying software engineering practices to data science: a literature review, data collection and preprocessing, machine learning and statistical analysis, model evaluation, interpretation, communication of findings, documentation of the process and lessons learned, and preparation for the project defence (viva). The chapters below follow that sequence. The guide marks the report out of 150 (minimum 60) and the compulsory viva out of 50 (minimum 20).

What is not yet fixed. As of 06 October 2026 IGNOU had not published separate MCSP-079 project guidelines, so no page count, spacing, binding, cover format, certificate wording or submission address is set here. Replace this template's front matter with whatever the MCSP-079 guidelines prescribe once they are released.

Not for submission. Use it to plan and check your own report. Never fill the shells with invented or copied numbers.

ignouproject.com

Page Order (Front to Back)

#	Item	Notes
1	Cover page	Course code MCSP-079, title exactly as approved, your name, enrolment number, guide's name, programme, year. Use IGNOU's prescribed format when published.
2	Approved proposal and approval document	As returned to you after evaluation, if the MCSP-079 guidelines ask for it to be included.
3	Certificates and declarations	Only those the MCSP-079 guidelines prescribe, signed and dated as instructed.
4	Acknowledgements	Optional, short.
5	Table of contents	With page numbers that match the pages.
6	List of tables and list of figures	Numbered, with titles.
7	Chapters 1 to 9	See the chapter plan on the next pages.
8	References	One consistent citation style throughout.
9	Appendices	Code listing or repository link, data dictionary, environment details, permission letter, labelling rules.

ignouproject.com

Chapter 1: Introduction

- Background of the problem in [domain].
- Problem statement (as in the approved proposal).
- Objectives and research questions, worded exactly as approved.
- Scope and the organisation or setting where the work was done.
- Organisation of the report.

Sentence frame: This project examines [problem] in [setting] using [data source]. Its objectives are to [objective 1], [objective 2] and [objective 3].

ignouproject.com

Chapter 2: Literature Review

- Studies you actually read, grouped by approach.
- What each found, on what data, with what method.
- The gap your project addresses.

Sentence frame: [Author] ([year]) studied [problem] using [method] on [data] and reported [finding as stated by the author]. However, [gap].

ignouproject.com

Chapter 3: Data: Source, Permission and Description

- Source, period, licence or written permission.
- Fields used and fields excluded (with reasons).
- Ethics and data-protection steps.
- Descriptive statistics of the raw data.

Field	Type	Description	Missing (%)	Used? (Y/N)
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

Table 3.1: Data dictionary (shell)

ignouproject.com

Chapter 4: Data Preprocessing

- Cleaning, missing-value handling, outlier treatment, transformation.
- Each step with the reason and its effect on record counts.

Step	Action taken	Records before	Records after	Reason
1	[]	[]	[]	[]
2	[]	[]	[]	[]
3	[]	[]	[]	[]

Table 4.1: Preprocessing log (shell)

ignouproject.com

Chapter 5: Methodology and System Design

- Methods and why each suits the objectives.
- Software design: architecture diagram, modules, data flow.
- Experimental set-up: train, validation and test split, cross-validation, random seeds.
- Hardware and software environment with versions.

Model / method	Key settings or hyperparameters	Values tried	Value selected	How selected
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

Table 5.1: Model settings (shell)

ignouproject.com

Chapter 6: Implementation and Testing

- How each module was built (key code explained, not pasted in full).
- Unit tests and system tests with cases and outcomes.
- Problems met and how they were fixed.

Test ID	Module	Input	Expected output	Actual output	Pass / Fail
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]

Table 6.1: Test cases (shell)

ignouproject.com

Chapter 7: Model Evaluation and Results

- Metrics chosen and why (for classification: confusion matrix, accuracy, precision, recall, F1-score, ROC and PR curves).
- Results on the held-out data only.
- Computation cost if it is part of the objectives.

Sentence frame: On the held-out set of [n] records, [model] achieved [metric] of [value], compared with [value] for [baseline].

Model	Precision	Recall	F1-score	ROC-AUC	Time (s)
[Baseline]	[]	[]	[]	[]	[]
[Model 2]	[]	[]	[]	[]	[]
[Model 3]	[]	[]	[]	[]	[]

Table 7.1: Model comparison (shell)

	Predicted positive	Predicted negative
Actual positive	[TP]	[FN]
Actual negative	[FP]	[TN]

Table 7.2: Confusion matrix at the selected threshold (shell)

ignouproject.com

Chapter 8: Interpretation and Discussion

- What the results mean for each objective and research question.

- Comparison with the studies in Chapter 2.
- Errors examined: typical false positives and false negatives.
- Threats to validity.

Sentence frame: For RQ[], the results [support / do not support] [statement], because [evidence from Table 7.1].

ignouproject.com

Chapter 9: Conclusion, Lessons Learned and Future Work

- Answer to each objective in one or two sentences.
- Limitations.
- Lessons learned during the project, as the guide asks.
- Future work.

ignouproject.com

Viva (Project Defence) Preparation Sheet

The viva carries 50 marks with a minimum of 20, and it is compulsory. Prepare to answer, in your own words:

- Why this problem, and why this data?
- Why these methods and not others from your syllabus?
- How did you split data, and how did you avoid leakage?
- What does each metric in Table 7.1 tell you here?
- Show a live run of your tool or code. What would you change first?
- What did you learn that the coursework did not teach you?

ignouproject.com