M2 – Milestone – Rubric (15% of the final grade[1])

ITEMS: Data preparation, minable view, model building and evaluation, deployment mockup, and use of technology

Deliverable: A PDF report, preferably with the structure: Introduction, Data preparation, Task description, Model prototype and evaluation, Discussion. Do not use external links (Trello, googledocs, etc.) that may change from the time of delivery: if you use these tools, copy the material in the PDF. **Maximum of 2000 words in no more than 7 pages** (references and appendices are excluded from the count).

Items that we will look for and criteria for evaluation according to the following table (the quality of the report can affect the grade):

ITEMS	Excellent (8-10)	Good (6-7.5)	Satisfactory (5-5.5)	Needs improvement (0-5)
Data preparation [UNIT 4] (Weight=0.20)	The team has collected and integrated (if necessary) the **data for analysis**, understood it through visualisations and summarisations, and prepared it (cleaning, missing data treatment, transformations, etc.).	The team has collected and integrated (if necessary) the **data for analysis**, understood it through visualisations and summarisations, but its preparation needs to be improved or extended.	The team has collected and integrated (if necessary) the data for analysis, understood it but either not completed preparation or failed in how to prepare the data for analysis.	The team has not finished data collection and integration, or fails in its summarization and understanding.
Materialising minable view [UNIT 3] (Weight=0.25)	The team has selected and materialised at least one "minable view" (model data spec) that represents a well-defined **task**, including the input (and output) variables, using feature creation or construction if needed.	The team has determined the type of **task** (classification, regression, clustering, etc.), and specified the "minable view" in basic terms, but what features and sample are used in the end is not completely clear.	The team has determined the type of **task** (classification, regression, clustering, etc.), but the "minable view" is not (well) specified.	The team has not determined the type of **task** (correctly).
Model building [UNITs 3,4] (Weight=0.25)	The team has built at least one **model** fully trained for the minable view(s), with one or more appropriate **techniques**, choosing a reasonable architecture and hyperparameters.	The team has built at least one **model** fully trained for the minable view(s), with one or more appropriate **techniques**, choosing a reasonable architecture but some aspects as hyperparameter tuning can be improved.	The team has built at least one **model** fully trained for the minable view(s), with one or more **techniques**, but the choice of techniques can be improved in any way.	The team has not completed building a fully trained **model** or has chosen completely inappropriate **techniques or strategies**.
Evaluation [UNITs 3,4] (Weight=0.25)	The team has evaluated the model(s) using a **metric** that suits the **task and the context (e.g., costs or utilities)**, and through the appropriate evaluation protocol and repetitions (e.g., cross-validation, bootstrapping, etc.).	The team has evaluated the model(s) but there are either other metrics that better suit the **task and the context (e.g., costs or utilities)**, or the evaluation protocol and repetitions (e.g., cross-validation, bootstrapping, etc.) can be improved.	The team has evaluated the model(s) using either a wrong **metric** that suits the **task and the context (e.g., costs or utilities)**, or an inappropriate evaluation protocol.	The team has not evaluated the performance of the model(s).
Deployment mockup [UNIT 5] (Weight=0.25)	The model or its results are illustrated through an **application mockup or prototype** to solve the original objectives and have a first estimate of the generated value. This will answer: "can it work?"	The model or its results are illustrated through an **application mockup or prototype** but it is not clearly proven how they answer the original objectives.	The model or its results are illustrated through an **application mockup or prototype** but it this illustration or application needs improvement.	The model or its results are not illustrated through an **application mockup or prototype** to solve the original objectives.
Use of Technology (Weight=0.15)	The team has mastered one or more **technical tools or packages**. The team has shown autonomy, **finding solutions** in technical forums and contacting external people if needed.	The team has mastered one or more **technical tools or packages**. The team has sometimes shown autonomy, but needed assistance in other cases.	The team has mastered one or more **technical tools or packages**, but they are not completely autonomous.	The team does not master any **technical tools or packages**.
Seminar Use (Weight=0.15)	The team has used many ideas, concepts, tools, and methodologies seen during the course seminars (units), and have explained why they consider them appropriate for their project, or have introduced alternative elements from some of the sources provided (or new methods and tools) also justifying why they are better or more suitable than those seen during the seminars.	The team has used some ideas, concepts, tools, and methodologies seen during the course seminars (units) and have explained why they consider them appropriate for their project.	The team has used some ideas, concepts, tools, and methodologies seen during the course seminars (units).	The team has used very few ideas, concepts, tools, and methodologies seen during the course seminars (units).

[1] There will be a retake, in about two weeks. When you do the retake, **please highlight in a different colour or in some other way the things that you have changed wrt. the first version**. Note that achieving a 10 in the retake is more complicated, as the team must go well beyond just "implementing" the suggestions from the instructors' feedback.