Quick intro about the TFM

Master in Data Science, 8th ed. MAD

Goals of the TFM

- Students will show their capability to work as data scientists
- Starting from raw data, all the way up to solving a research question
- TFM will include the following phases:
    - Data acquisition
    - Data cleansing and preparation
    - Analysis
    - Frontend / visualization
- The question can be refined after several iterations working with the data

Deliverables

- Repository with all the code and ready to be executed
  - **Please provide instructions** to install any package or dependency
- Document explaining the TFM
  - Two objectives to be optimized with the document:
    - As brief as possible
    - But at the same time containing enough details so the work could be replicated
- Any data scientist with the document and the repository should be able to replicate the TFM

Suggested structure of the document

- Introduction: what, why, why is it relevant, any previous related work/state of the art
- Raw data description
- Methodology: machine learning techniques used, statistical methodologies
- Summary of main results
  - Detailed results will be available by running the code in the repo
- Conclusions
  - Not a summary of the work. The problem was relevant, now with your work, what can you say about how the problem is solved?
- User manual for the frontend

Technical restrictions

- None
- You can use any technology
  - As long as the evaluators can get access to that technology too

Phases during the master

- Write message in Basecamp specifying topic, link to repo and group
  - **Message topic should start with [TFM]**
  - **1 or 2 people per group**
  - **Deadline: October 30th**
  - PLEASE DON'T WRITE ME AN EMAIL, post in Basecamp
- Deliver repo and main document
  - Include the document in the repo
  - **Deadline: December 19th**

Recommendations with the repo:

- Public repo for greater visibility
  - Better future opportunities
- **Please don’t upload private data to the repo**
- Clean repo, with proper README.md
- Preferably in English
  - But not mandatory

Evaluation criteria

- Clarity in the document, easiness to replicate work
- Complexity
  - In the data and the analysis methodologies
  - More complex is better
- Clarity and correctness of source code
- Relevance and fit-to-purpose of the chosen analytical methods
- Relevance and fit-to-purpose of the chosen technologies
- UX and usability of the frontend
  - We will evaluate as the “consumer” of the report, with zero knowledge of data science
- 0-10 points
  - 0.1 points less per hour of delay

Links

- Rules for the TFM
- List of previous TFMs (see message in Basecamp)
- Some links in the KSchool web
  - http://kschool.com/blog/data-science/martacamarads/
  - http://kschool.com/blog/big-data/jmvaldeolmillos/
  - http://kschool.com/blog/formacion/gonzalo-sanchez-tfm-data-science/
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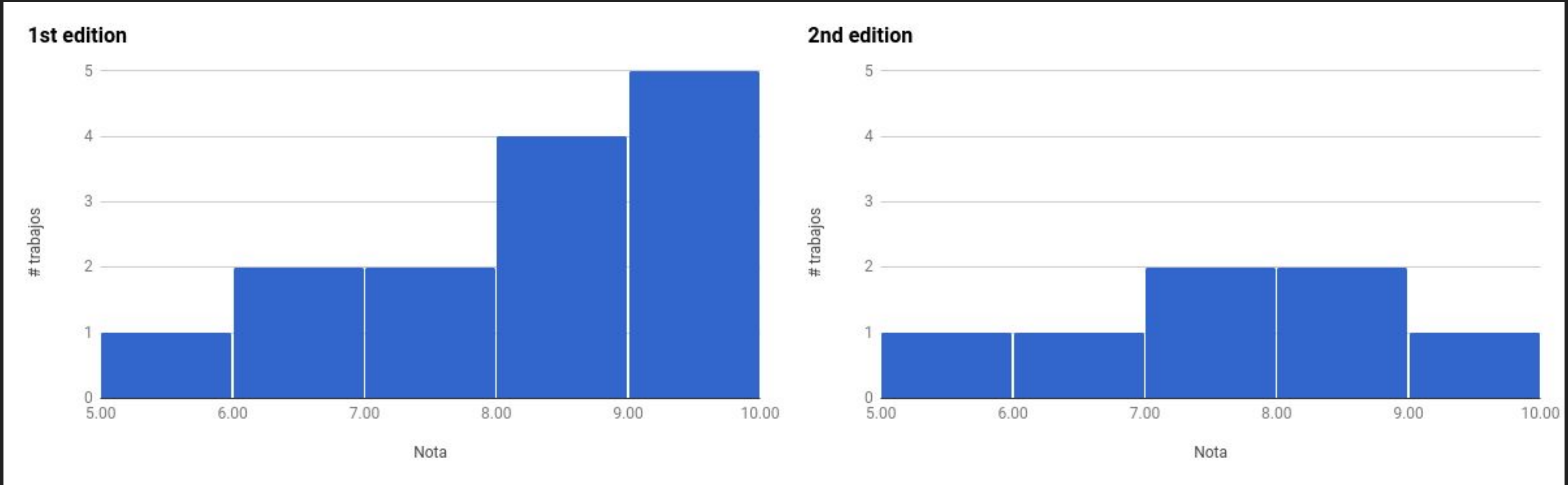
  - http://kschool.com/blog/data-science/tfm-data-science-manuel-maestre-estimacion-precios-del-alquiler/
  - http://kschool.com/blog/data-science/tfm-data-science-banca/

Results of previous editions

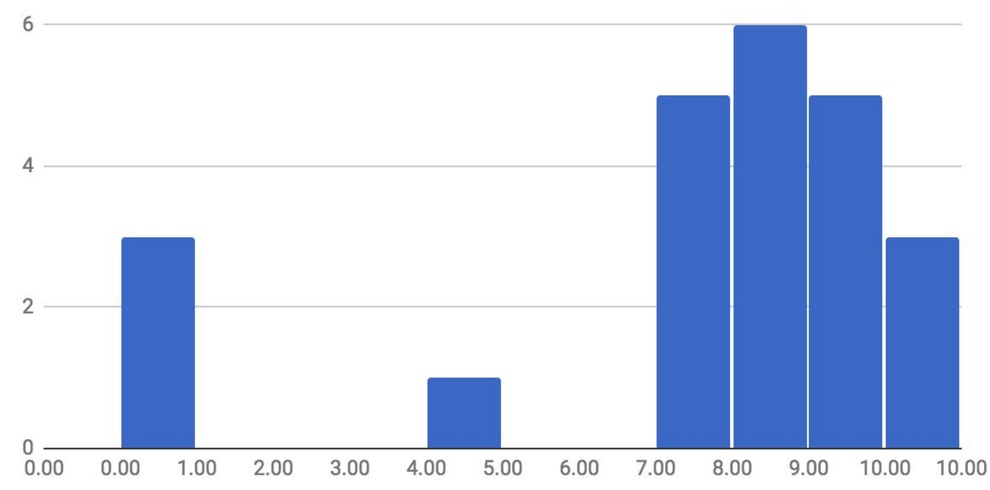


1st edition

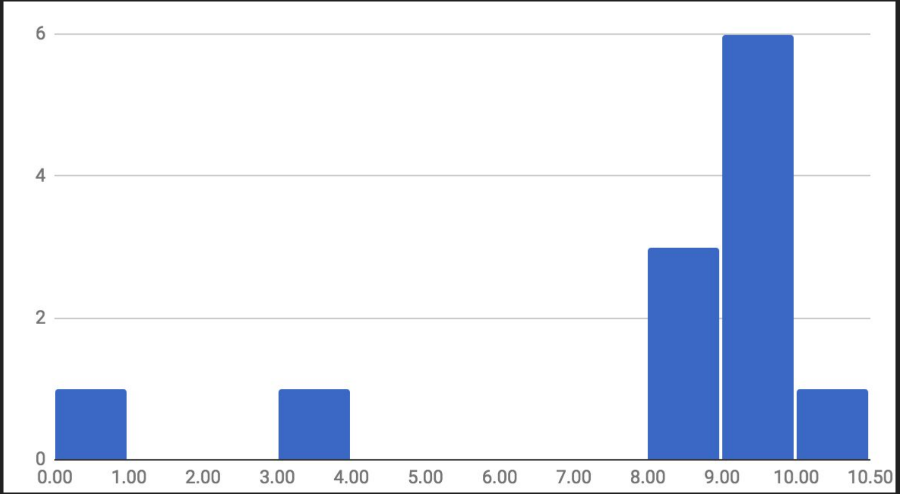
2nd edition

Results of previous editions

3rd edition

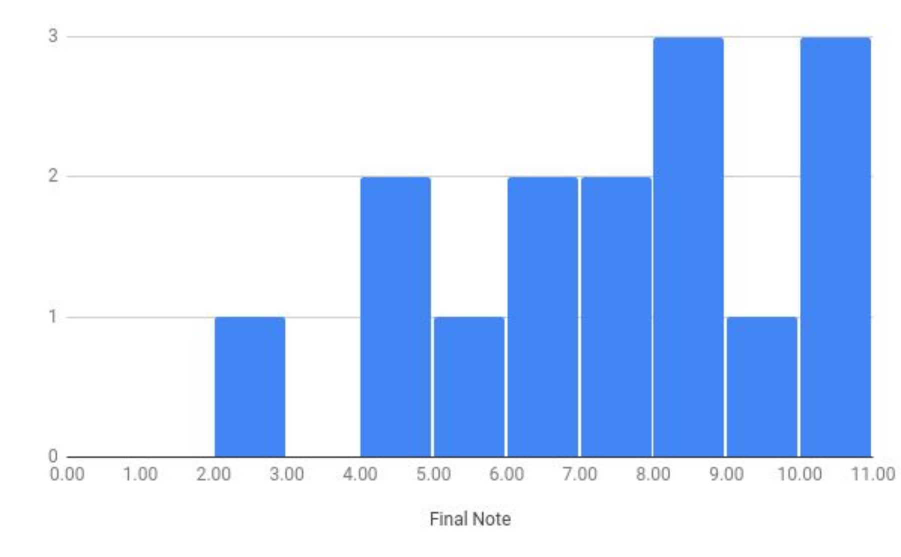


4th edition

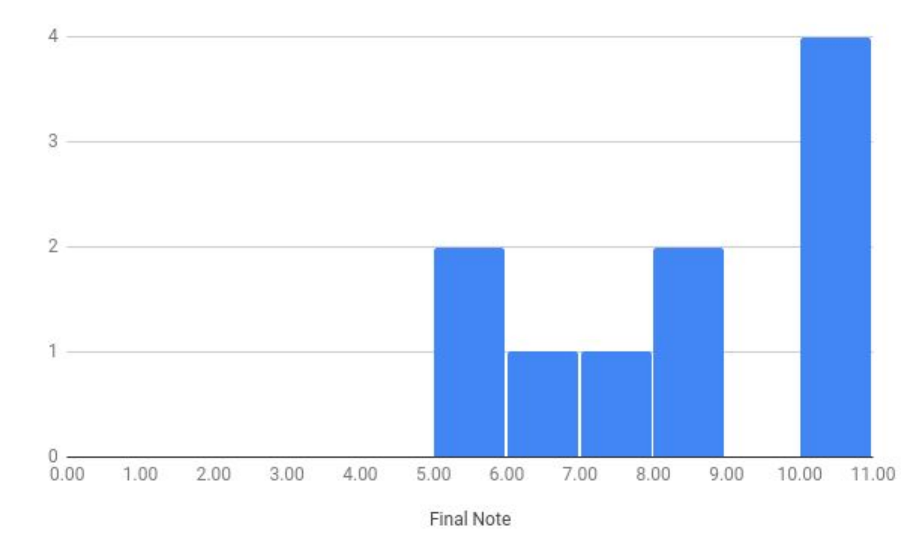


Results of previous editions

5th edition



6th edition



Questions?

- I don’t find data for my idea
  - We can share data and propose a topic
    - Airlines’ customers segmentation
    - Analysis of factors affecting flight delays
    - Analysis of the Ethereum blockchain
- Can I repeat the same topic of a previous TFM?
  - Yes
- More questions :)