Scalable marking tool

PIVOT

What is our end goal?

1. Automatic marker (math tests) using pdf files
2. Automatic marker (maths tests) using pdf files with feedback
3. Math solver like microsoft math app
4. Other ideas

What have we tried?

- Using open source computer vision
  - OpenCV
  - MNIST data set
- Amazon textract
- Clustering
- Other approaches

Timeline

We have 1 month to come up with a product

Phase 1: Decide on a product
22 Sept - 25 Sept

Phase 2: Implement a working notebook
28 Sept - 2 October

Phase 3: Implement a working demo
28 Sept - 9 October

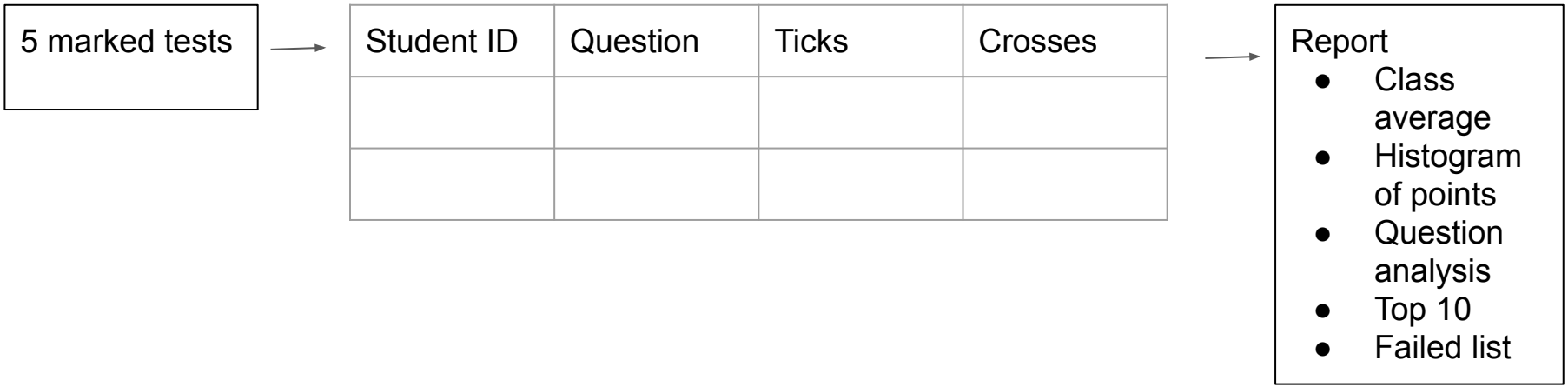
Phase 4: Final touches
12 October - 16 October

Proposed process

Let's assume that the teacher already marked the tests

Would this simplify our process?

Marked tests → identify ticks and crosses → create report and feedback



Feedback form structure

Student ID	Question 1	Question 2
1011	3	0

Apply a filter:
If number of ticks not equal to memo number ticks then flag question

Process

- Teacher scans a marked test as a .pdf
- Segment pdf into images per question
- Use machine learning to identify red ticks
- Output stored as a json file
- Transform json file to csv
- Open csv in sheets
- Optional : from sheets to powerBI