

6G6Z1705  
**Artificial Intelligence**

Scenario 1

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# 1 Introduction

In this report an AI classifier will be laid out which distinguishes images containing the number '4' from any others. This shall include reducing noise in the images as to remove as much unwanted information as possible, and reducing the number of parameters. Finally, the data will be tested using a classifier in WEKA to distinguish the different digits.

## 2 Image Processing Methods

- Techniques you have chosen to reduce noise in the images.

## 3 Image Encoding methods

- Techniques you have chosen to describe the nature of the digits in the images.

## 4 Data classifiers

- Methods you have chosen to distinguish be the different categories of digit present.

## 5 Experimental Results

- Plan for experiments, with justification.
  - Results showing the effects of your technical choices.
- A description of the best (a) image processing, (b) encoding and (c) classification methods.
- Short analysis or discussion of results, containing your recommendations.

## 6 References

- Research papers (journal conference) cited in your report (use Harvard citations method)
  - Books cited in your report (use Harvard citations method)
  - Web sites cited in your report (use Harvard citations method)

## 7 Appendices

- You must include the code used to process the images as a section of the report - this is in addition to the executable version submitted with it.
- Any other supporting material (e.g. tables of extra experiments you performed which are not used directly in the main report)