Synopsis

1 - Title of project:
2 - Name and study ID of all group members:

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- Jacob Johansen - s103808

3 - Background and motivation:

In this project we examine the possibility to use a neural network to classify environments in sound files. We focus on classifying sounds that are mostly present as background noise, in other sound files, such as car horns, sirens, street music, etc.
This is interesting for two reasons. In some situations it might be desirable to know the environment where a sound was recorded, such as for instance in an investigation of some sort. However, classifying background noise might also be used for better searching in sound files. For instance we might be able to search for YouTube videos containing car horn sounds, even tho the video might not be related to car horns at all.

4 - Milestones:

- Implement a (simple) CNN network that gets a descent accuracy on non corrupted Urban8k data.
- Modify CNN such that we get a descent, or high as possible, accuracy on Urban8k data corrupted with noise (white-noise & speech).
- Modify CNN such that we can classify multiple labels, data is Urban8k added together.
- Corrupt multi label data with noise and evaluate performance