Review quizzes

- Explain the similarities and differences between traditional supervised learning and deep supervised learning

- How to train a deep feedforward neural network?

- What is "vanishing gradient"?

- What is RELU?

Summary of DNN techniques

- Training a network by backpropagation
- When networks become "deep", simple SGD may be problematic, because of vanishing and exploding gradient
- Many techniques were proposed to (partially) solve the problem to accelerate learning
  - Weight initialization
  - Activation function design
  - Optimizer design
  - …

Final project

- You should submit three pieces
  - A project report
    - Better follow the standard paper format
  - The presentation slides
  - A single compressed file containing source code with instructions describing how to run it
- Presentation date: 1/5
- Final project report due: 1/11 (23:59:59)
  - You may still update your results after presentation