Feedback on the first individual report

Most students did well on the first individual report. However, there are some mistakes and misunderstanding in some of the reports. They can be summarised as follows:

1. A few students misunderstand what should be discussed in the individual reports as critical analysis. They mainly focused on analysing the architecture and the optimisation of SRCNN rather than discussing the main trends and ideas of related concepts and techniques in the literature, and most importantly identify what are remaining problems unsolved. A critical analysis in this context should be more about what and why, less about how.
2. Some students only summarised the main trends and key ideas of some related works in their reports, but they forget to discuss what problems remain unsolved (i.e. being critical), and identify which direction of development is the most interesting (and why?).
3. One or two students use a Blog as the reference without discussing any other related works. Blogs are not peer-reviewed, they are unchecked opinions, and may not be correct or impartial.
4. Several students use some contents in the SRCNN paper to discuss the differences between CNN-based methods with sparse-coding-based methods. This is less about critical analysis, and more about explaining SRCNN.
5. Several students don't include any references. A critical analysis should be supported by appropriate independent and credible evidence. This is usually peer-reviewed publications.

For better help you writing critical analysis reports in the future work, we suggest the following to be considered:

1. First of all, as suggested in the guideline, the first individual report on critical analysis should introduce the main trends of image super-resolution after the publication of SRCNN up to now. Moreover, the key ideas of each related work you have identified should be summarised briefly, i.e. why those more recent new developments since SRCNN make a valuable contribution. Here, what problems in image super-resolution have been addressed in those related publications should also be discussed. At last, the remaining problems and most interesting problem which haven't been addressed and deserve to be solved should be mentioned.
2. To be specific, in terms of each question in the guideline, try to answer it in a more rigorous way rather than an overly general statement. This does not mean to write more text. It does mean to be precise and carefully considered.
3. Another suggestion, when discussing related works, it would be better to talk about the key ideas that are ***unique*** to each work, instead of generally saying something like "the key idea of this work is to improve the performance using deeper network" – this is an example of too general and not precise. There are a lot of methods trying to tackle the same problems from similar views. However, each work usually has a unique contribution with a distinct idea novel to solving the problem, and shown/demonstrated being effective from experiments. That is, not just a good idea, it also works.
4. The reason why we would like you to conduct such critical analysis is to form a more comprehensive understanding of a machine learning task, e.g. image super-resolution, not just how to implement a particular algorithm. This may help one to develop ones own idea on how to advance the state of the art. With this in mind, neither summarising how a method was designed and implemented nor repeating what the authors had claimed constitute a critical analysis.
5. Carefully structure your report to make it clear and logical, so that a reader can grasp your interpretation on what is unique and what is lacking, and what you identify as a good problem remains to be solved given the related works you have reviewed from the literature. .