**Learning Outcome 1:**

Some efforts are made towards the improvement of the literature review. This includes a detailed description and analysis of the various hashing algorithms, which is good. However, a critical evaluation of the current systems/techniques (not hashing algorithm) used for data de-duplication is still missing.

**Learning Outcome 2:**

Both examiners agreed that some efforts were made to improve the dissertation from the previous attempt. However, most of the previously suggested recommendations are still not addressed. This includes justification of why hashing is a suitable method to tackle the problem, critical analysis of related work, following a sound methodology, evaluation of the proposed approach, and comparison with any other work. Furthermore, the newly included contents (i.e., a comparison of the hashing algorithm) don’t follow an academic approach. Results are included without providing any explanation of what they mean how these are obtained, or providing any citations.

**Learning Outcome 3:**

The overall work lacks following an academic approach to evaluation, critical analysis of related work and/or comparison with other related work.

**Learning Outcome 4:**

Both examiners were in agreement that the overall complexity of the proposed work was not sufficient; the description and presentation of the proposed work didn't include sufficient and relevant details; and lastly, overall it lacked following an academic approach.

**Learning Outcome 5:**

Muhammad demonstrated some basic understanding of parts of his project but mostly from a very generic viewpoint. In his dissertation as well as in his viva, he did not provide convincing evidence that he had in-depth insights about the hashing algorithms or the core concepts of his project. Overall, his work and understanding also lack following an academic approach. His explanations were mostly generic rather than contextual to his project.

Overall, the viva performance was not sufficient to convince the supervisor and the internal examiner that the carried-out work deserves a pass.

**Overall comments:**

Both examiners agreed that some efforts were made to improve the dissertation from the previous attempt. However, most of the previously suggested recommendations are still not addressed. This includes justification of why hashing is a suitable method to tackle the problem, critical analysis of related work, following a sound methodology, evaluation of the proposed approach, and comparison with any other work. Furthermore, the newly included contents (i.e., a comparison of the hashing algorithm) don’t follow an academic approach. Results are included without providing any explanation of what they mean how these are obtained, or providing any citations.

Both examiners were in agreement that the overall complexity of the proposed work was not sufficient; the description of the proposed work was poor; the evaluation of the work was inconsistent with the proposed methodology; the viva voce performance was insufficient to justify a pass.