**Individual Report**

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**Evaluated by:** [Krupaben Kothadia](mailto:kkothadi@asu.edu)

**Date: 10/09/2023**

**Tasks Assigned:**

* Evaluating and approving the Gantt Chart.
* Preparing an individual in-depth report.
* Preparing an individual progress report.
* Evaluating and approving team members’ individual progress and in-depth reports.
* Assigning Tasks along with the Group Leader
* Preparing the Weekly Report
* Evaluating and approving the weekly report
* Taking meeting notes
* Organizing group meetings

**Summary:**

* All the tasks have been completed successfully. These include assigning tasks, preparing the in-depth report, individual progress report, evaluating and approving the weekly report, preparing the weekly report, approving and evaluating the Gantt chart, approving 4 team members’ in-depth reports and progress reports, taking meeting notes and organizing the group meetings.
* An In-Depth study of [**Privacy Preservation of Social Network Users Against Attribute Inference Attacks via Malicious Data Mining**](https://drive.google.com/file/d/1Gigpwllq6nNhbfu33l_-eNO7mxQF0CTZ/view?usp=drive_link) has been conducted.
* The main focus area of this paper is to address the growing concern of privacy in online social networks (OSNs) where users often share personal information.
* The authors introduce a privacy-preserving technique called 3LP+, which is an extension of the existing 3LP algorithm.
* The 3LP+ technique is presented in three layers :
  + **Attribute Suppression (Layer 1):** In this layer, 3LP+ computes the sensitivity of each attribute and suggests to the user which attribute values to suppress.
  + **Hiding Friendship Links (Layer 2):** If sensitive rules in Layer 1 still pose a threat (particularly those relying on link attributes), 3LP+ recommends hiding friendship links to disrupt the attacker's predictions.
  + **Adding Friendship Links (Layer 3):** If sensitive rules involve link attributes that need to exceed a certain threshold, 3LP+ suggests adding new friends to the user's network.

**Outcome:**

The paper introduces 3LP+, a privacy protection method for online social networks. It defends against attribute inference attacks, safeguarding multiple sensitive attributes cohesively. Experimental results show its superiority over existing techniques, even against diverse classifiers. This research advances online privacy protection amid growing concerns of data exploitation in social networks.

**References** *(with citation)*  
  
[42] Khondker Jahid Reza, Md Zahidul Islam and Vladimir Estivill-Castro,”Privacy Preservation of Social Network Users Against Attribute Inference Attacks via Malicious Data Mining”, in Proceedings of the 5th International Conference on Information Systems Security and Privacy (ICISSP 2019), Barcelona, Spain, pp. 412-420, doi: 10.5220/0007390404120420

**Evaluation of Report  
  
Evaluation by:** [Krupaben Kothadia](mailto:kkothadi@asu.edu) **Date: 10/09/2023**

**Is the weekly member report complete with all the major result(s) of the paper(s)? If not, provide as many examples of the major result(s) missing in the written report as possible. (in bullet form). [within 100 words]**

* Yes, the weekly member report is complete with all the major results of the paper. Each section of the guidelines has been sufficiently completed. The report details the successful completion of various tasks, including task assignments, preparation of the in-depth report, individual progress reports, evaluation and approval of the weekly report, Gantt chart approval and evaluation, and reviewing four team members' in-depth reports and progress reports.
* The report also discusses the main focus of the paper, which is addressing privacy concerns in online social networks (OSNs) and introduces a privacy-preserving technique called 3LP+. This technique is presented in three layers, namely Attribute Suppression, Hiding Friendship Links, and Adding Friendship Links, providing a comprehensive overview of the paper's major results and contributions.

**Is each section of the guidelines sufficiently completed? If not, point out what is missing. [Normally within 40 words].**

Yes, each section of the guidelines is sufficiently completed.

**Is the quality of this version of the written report satisfactory? If not, then why not? [Normally within 40 words]**

Yes, the quality of this version of the written report is satisfactory.

**Approved by:** [Krupaben Kothadia](mailto:kkothadi@asu.edu) **Date: 10/09/2023**