Anonymising Data using k-Anonymity

Course Objectives

Data anonymisation is an important approach in data governance and management; it enables organisations to protect personal information while sharing, processing, and making use of such information. However, anonymisation still carries the risk of re-identification. A well-known approach which allows organisations to quantify the risk of re-identification utilises k-anonymity.

This hands-on, interactive course provides an in-depth exploration of k-anonymity. The anonymisation process can use various techniques to achieve the k-threshold; several of these will be explored in theory and exercises in terms of how they contribute towards k-anonymity. The course introduces the theoretical foundations, and it complements the understanding with exercises and discussions. It also shows how to apply the 5-step process promoted by Singapore's Personal Data Protection Commission (PDPC) and the Association of Southeast Asian Nations (ASEAN)'s Anonymisation Guides. Exercises will use the Academy's own learning tool.

The course also covers legal aspects of anonymisation as far as relevant for the understanding and practical use of k-anonymity. It further addresses risk considerations for assessing the sufficiency of anonymisation. Though more technical in nature, this course is suitable for managers and directors to get a better understanding of anonymisation, and how to address and manage re-identification and other threats as part of their risk management responsibilities.

This course complements our Pseudonymisation Primer course.

Who should attend?

- Privacy Engineers, Technical Staff, Developers, Data Analysts, Data Architects, and Project Managers
- Data Protection Officers (DPOs), Compliance Professionals, and Corporate / In-house Counsels
- Executives, Managers, and Staff involved in the management, collection, use or other processing of personal data

Course Details

Course Code: PE201

Title: Anonymising Data using k-Anonymity

Duration: 1 day (approximately 7 contact hours)
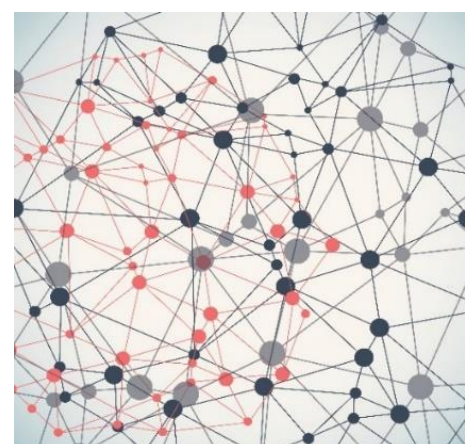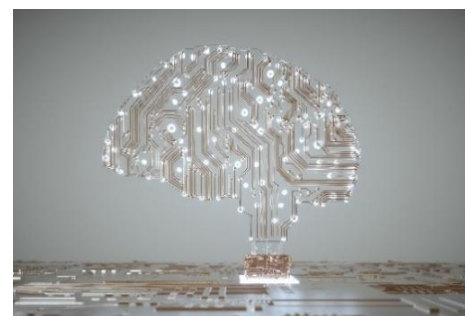
Mode of Training: In-person

Venue: Drew & Napier LLC

                             10 Collyer Quay, 10th Floor, Ocean Financial Centre

                             Singapore 049315

Course Fee: S$500.00 (excluding GST)

Drew Data Protection & Cybersecurity Academy
10 Collyer Quay, 10th Floor, Ocean Financial Centre, Singapore 049315
Tel: +65 6535 0733 Fax: +65 6536 5083

To subscribe to our updates, please email us at: academy@drewnapier.com
Visit us at: https://www.drewnapier.com/Academy

To view available dates and register for this course, please click here. You may view all available courses and our course schedule(s) on our Academy webpage (https://www.drewnapier.com/Academy).

Course Outline

- **Overview of anonymisation (Know the rules and your data)**

  - Data anonymisation:
    - Anonymity and data anonymisation
    - Data attributes
    - Keep data secret versus keep identity secret versus protect new insights

  - Brief introduction to legal aspects under Personal Data Protection Act (PDPA)

  - Identification, Identifiability, and sensitivity of data:
    - Anonymisation scale
    - PDPC and ASEAN Guide's release models

- **Basic anonymisation (Know the process, techniques, and relationships)**
  - PDPC and ASEAN Guide's 5 step process
  - Key techniques and exercises
  - Utility versus information loss: Basics of information content and information entropy

- **Details of k-anonymity with exercises (Know k-anonymity measure)**
  - Origin and intent of k-anonymity
  - Concept of equivalence class
  - k-Anonymity: Protection against re-identification and limitations
  - Exercises on small and complex data sets

Course Facilitator

Albert Pichlmaier is Senior Learning Technology Designer with Drew Academy and concurrently Senior Cybersecurity & Privacy Engineer with Drew & Napier's Data Protection, Privacy & Cybersecurity practice. He holds a degree in Computer Science from a German tertiary institution. He is a Certified Information Systems Security Professional (CISSP), a Certified Data Privacy Solutions Engineer (CDPSE), a holder of the Singapore WSQ Advanced Certificate in Learning and Performance (ACLP), and a certified Blockchain Developer. Albert is credited as an inventor of two patents granted in Germany and other countries. His technical expertise covers a wide-ranging area of matters involving Cybersecurity, Privacy Engineering, Cryptography, Quantum Computing, Artificial Intelligence / Machine Learning, Blockchain Development, Data Analytics, Big Data, and Data Visualisation. For the courses and webinars under the Drew Academy, he draws from this pool of knowledge and experience to explain technical content to non-technical audiences, develop proof-of-concept and learning tools, and engage with experts on finer details.

Albert was formerly an Executive Manager with the Personal Data Protection Commission (PDPC), where he was involved in technology assessments for data breach investigations, research into trending / disruptive technologies and advising on technical aspects of various PDPC guidelines and publications (amongst other matters). Prior to his role with the PDPC, Albert worked in technology-related organisations in the private and public sector in Germany, Spain, and Singapore. He was also a technopreneur, having set up a company to provide testing tools for embedded systems and smartcard applications.

Drew Data Protection & Cybersecurity Academy
10 Collyer Quay, 10th Floor, Ocean Financial Centre, Singapore 049315
Tel: +65 6535 0733 Fax: +65 6536 5083

To subscribe to our updates, please email us at: academy@drewnapier.com
Visit us at: https://www.drewnapier.com/Academy