**UNIVERSITY OF CAPE COAST**

**COLLEGE OF HUMANITIES AND LEGAL STUDIES**

**SCHOOL OF ECONOMICS**

**DEPARTMENT OF DATA SCIENCE AND ECONOMIC POLICY**



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**COURSE TITLE: DATA CURATION AND MANAGEMENT**

**COURSE CODE: DMA 820S**

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**SECOND ASSIGNMENT**

* Outline six (6) data quality performance indicators recommendable for meeting the vision of your institution.
* Identify and justify five administrative data points your organization should prioritize for archiving for the next five years.

Regent University College as an educational institution, handles large volume of student-related data, from admissions to academic records and alumni engagement. To ensure this data supports the institution’s vision, it is therefore important that they follow these data quality performance indicators to ensure operational efficiency.

1. **Completeness**  
   Every data should have all the required information before it is stored or used. For instance, a student’s record should include complete demographic, academic and financial information. Missing records can undermine strategic planning and reporting and operational effectiveness.
2. **Accuracy**  
   Accuracy ensures data is factual and reliable to report. If a student has paid 80% of their fees, the system should reflect exactly that amount. Accurate data builds trust among students, lecturers, and administrators, and prevents costly mistakes.
3. **Consistency**  
   Information should follow uniform format, and standards across all systems and departments as it helps maintain coherence in reporting at the University. For example, students’ identifiers should be uniform across all academic and administrative systems. Inconsistent records can lead to confusion and makes information look unauthentic.
4. **Validity**  
   Data must meet the rules and formats expected by the system. Dates should be entered in the correct format (e.g., DD/MM/YYYY), and programme codes must match the official list. Valid data ensures correctness, smooth processing and integration across systems.
5. **Uniqueness**  
   when records appear once in the system, it helps in accurate student tracking. For example, duplicate student IDs, can cause major errors in fee tracking, exam results, and graduation clearance. A system that flags and removes duplicates protects the integrity of student records.
6. **Timeliness**  
   Information must be available at the right time for the right people. For example, once a student makes a fee payment, the record should be updated immediately so they can proceed with exam registration or library access without delay. Late updates reduce efficiency and can create unnecessary stress for students and staff. Timely data supports prompt decision making.

Archiving key administrative data at Regent University is very crucial as it helps retain the institution’s historical data to prevent data loss, and meet regulatory compliance. The following five data points are essential for Regent University to retain for at least the next five years:

1. **Financial Data**

Regent University keeps quantitative information such as income, expenses, assets, liabilities and cash flow to make financial decisions. Financial data helps provide insight to their financial health and performance and also serve as a benchmark for the university to compare its performance against others as well as make important decision related to the allocation of resources and finances. It is therefore important to archive its financial data for accountability and transparency, audits and evaluation requirements, strategic planning and analysis, risks management, protection against data loss and operational continuity.

1. **Human Resources Data**

These archives are vital for talent management and development, providing a basis for job performance and eligibility for promotions. Proper archival practices defend against employment litigation, ensure regulatory compliance, support retirement and pension benefits.

1. **Facilities Data**

These includes details of physical infrastructure, IT Systems among others. Archiving such records will help the university to support maintenance planning, safety compliance, insurance claims, and future development.

1. **Students Data**

These include academic records, admission and enrollment data. Archiving student’s data is essential for verifying graduates’ academic credentials, providing transcript and reliable record to track students’ academic performance over time. The university can use admission data refine recruitment strategies to increase enrollment rates especially in high-demand programs. It also helps safeguard data in case of data loss that occurs as a result of system failures, human error, cyberattacks, or natural disasters and make it accessible for educational and administrative use in the future.

1. **Research Data**

These include students research project, master’s theses, doctoral dissertations and faculty research publications. Archiving these data support knowledge preservation, collaboration and data sharing, and future research discovery. It also shows the university’s commitment to innovation, regulatory compliance, and scholarly contribution.

**REFERNCES**

Cirelli, J., Konkol, A. M., Aqlan, F., & Nwokeji, J. C. (2018). Predictive analytics models for student admission and enrollment. *International Conference on Industrial Engineering and Operations Management, 2018*, 1395–1403.

Devani, F. T., Sulistiyanto, S., & Nadeak, E. (2024). *Measuring Data Quality In Higher Education By Using Loshin’s Framework.* 179–182. <https://doi.org/10.1109/eecsi63442.2024.10776078>

Jansen, B. J., Aldous, K. K., Salminen, J., Almerekhi, H., & Jung, S. (2023). *Data Quality Assessment* (pp. 55–64). Morgan & Claypool Publishers. <https://doi.org/10.1007/978-3-031-41933-1_5>

Manigonda, S. (2020). Establishing Data Quality Metrics: Framework For Manufacturing Applications. *International Journal For Multidisciplinary Research, 2*(2). <https://doi.org/10.36948/ijfmr.2020.v02i02.23368>

YE, C., & KANG, Q. (n.d.). On ISO9001 *Quality Standard and Management of University Students’ Archives.* <https://doi.org/10.3969/j.issn.1673-8004.2007.03.005>