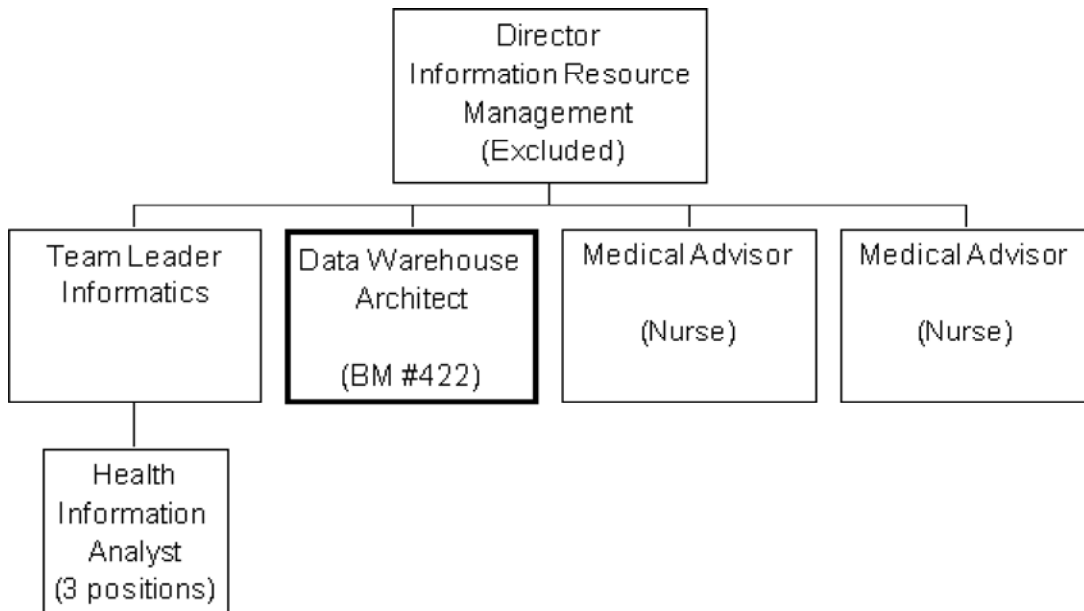|	
Position Number:	**Benchmark Job #422**
Ministry:	Health
Working Title:	**Data Warehouse Architect**
Branch:	Vital Statistics Agency
Level:	Range 27
Location:	Victoria
NOC Code:	2172

PRIMARY FUNCTION

To lead the technical design, development and maintenance of the data warehouse for the Vital Statistics Agency and integrate data from various applications including multi-dimensional data cubes.

JOB DUTIES AND TASKS

1. Leads the technical design and architecture of the Vital Information Statistics System (VISTA) data warehouse
    a. plans and designs the VISTA data warehouse through the application of a standard system development life cycle and business analysis and assessment
    b. creates normalized data models using generic and object oriented modeling techniques by translating logical models to physical models and creating entity-relationship diagrams
    c. develops and implements changes to applications in VISTA to facilitate the extract, transform and load (ETL) functions using a variety of programming languages (e.g. Visual Basic, Oracle and Structured Query Languages) for a province-wide data warehouse operation
    d. guides the generic application of meta-driven environment technology relating to data warehouse and data marts and expands the functionality
    e. evaluates data warehouse technologies and analytical methodologies to improve data utility, data access and systems functionality for internal and external stakeholders
    f. conducts technical and application risk assessments and develops security level recommendations for staff and systems users to protect personal information and to reduce and/or eliminate identity theft
2. Develops database and data warehouse operating standards and reporting tools
    a. develops and implements standards for the development of data warehouse end-user tool applications
    b. defines business rules and ensures consistent application for ongoing updates in the normalized space
    c. develops and defines database coding, documentation, naming and quality assurance standards
    d. develops reporting tools and applications to monitor and solve data quality deficits
3. Leads information technology projects and oversees database and data warehouse performance
    a. leads the development, analysis, and reporting of information technology projects for the installation and upgrading of the data warehouse architecture
    b. leads project teams, develops project plans and identifies deliverables, tracks progress, directs the work of team members and monitors performance
    c. analyzes and traces data quality deficits in the data warehouse, develops solutions and enhancements to VISTA functionality to resolve source data problems and/or makes recommendations on upgrades, tuning and configuration changes

      d.   monitors ETL functions for the data warehouse and responds to errors

      e.   coordinates the migration of VISTA components

      f.   monitors data quality in the normalized space and defines technical and business metadata

      g.   implements security controls and performs unit and integration testing

4.   Performs other related duties

      a.   conducts cost benefit analysis requiring program knowledge and detailed planning to determine the cost of purchasing decisions for new databases, data warehouses and other system technologies

      b.   develops system and user documentation for training materials to support end user applications

FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
1	**JOB KNOWLEDGE** Understand the theory of computer science to plan, design and adapt data warehouse technical architecture including ETL functions for various applications, evaluate data warehouse technologies and recommend solutions to database and data warehouse issues.	H	280
2	**MENTAL DEMANDS** Judgement to plan and evaluate the effectiveness of the Agency data management service and develop proposals for improvements to data warehouse design, standards, models and reporting tools; and analyze and resolve database and data warehouse performance issues.	H	250
3	**INTERPERSONAL COMMUNICATION SKILLS** Persuasion required to use basic negotiation skills to gain consensus on appropriate data warehouse technical architecture with stakeholders.	D	45
4>	**PHYSICAL COORDINATION AND DEXTERITY** Moderate coordination and dexterity required to keyboard with some requirement for speed to meet deadlines.	C	15
5	**RESPONSIBILITY FOR WORK ASSIGNMENTS** Comparative Effects – IV a. / Freedom to Act – Level 6 Guided by general ministry policies, technical standards and guidelines, develops solutions to database and data warehouse issues; evaluates data warehouse technologies and analytical methodologies, coordinates and recommends improvements to data warehouse technical architecture, upgrades, tuning and configuration changes.	F	160
6	**RESPONSIBILITY FOR FINANCIAL RESOURCES** Significant financial responsibility to perform cost benefit analysis requiring program knowledge and detailed planning to determine the cost of new databases, data warehouses and other technologies.	E	33

FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
7	**RESPONSIBILITY FOR PHYSICAL ASSETS/INFORMATION** Considerable responsibility to control processes which ensure the quality of information against standards for the design, operation and security of the data warehouse.	E	33
8	**RESPONSIBILITY FOR HUMAN RESOURCES** Responsibility to assign, monitor and review the work of project staff (3-5 FTEs).	CD	14
9	**RESPONSIBILITY FOR WELL BEING/SAFETY OF OTHERS** Moderate care and attention to develop security level recommendations to protect the confidentiality and security of client information from theft and/or misuse.	C	15
10	**SENSORY EFFORT/MULTIPLE DEMANDS** Focused sensory concentration to frequently view computer screen and documented material to resolve data warehouse and database issues.	C	12
11	**PHYSICAL EFFORT** Moderate physical effort to frequently focus visual attention to view data on computer screen and/or printed reports and documents.	C	12
12	**SURROUNDINGS** Occasional exposure to overnight travel.	A	2
13	**HAZARDS** Limited exposure to hazards from frequent keyboarding while conducting systems programming and developing standards, models and reporting tools.	B	4

Total Points: 875

Level: Range 27