University of Edinburgh

Job Description: NTRAC Database Developer/Manager

1. Job Details

   Job title: Database Developer/Manager
   School/Support Department: Edinburgh Cancer Research Centre
   Line manager: Edinburgh NTRAC Research Manager

2. Job Purpose

   The job-holder will develop the operational environment that will allow for the storage of data in back end systems developed by e-scientists. The post holder will specify and develop data entry forms for input of clinical data. The database manager plays a key role in building data management infrastructure for the Edinburgh NTRAC Centre.

3. Main Responsibilities

   Approx. % of time
   1. Developing and maintaining the Edinburgh NTRAC Centre database - Maintenance and development of further components of the database. 40
   2. Writing the datasets for the Edinburgh NTRAC Centre system. 25
   3. Developing the front-end of the NTRAC system using XML Designing screens for the Edinburgh NTRAC system when needed from paper to XML to XHTML. 10
   4. Developing and maintaining the Edinburgh NTRAC Centre website 5
   5. Work with NTRAC e-scientist to link the operational NTRAC Centre databases to current cancer genetic epidemiological studies with new recruits to the NTRAC Centre. 5
   6. Work with all members of the NTRAC team to manage data required to achieve the NTRAC core aims, ensuring data quality and security. 5
   7. Work with the NTRAC e-scientists to link systems between the operational NTRAC centre database and the development of computer grid systems to underpin post genome translational research linking clinical, pathological treatment, molecular, biological and genetic data. 5
   8. Other databases: Redesigning and developing the CRUK (Ovarian) oracle database and supporting other databases (Access). 5

4. Planning and Organising

   Tasks are allocated on a weekly basis by the research manager. Tasks are discussed with the IT team to identify further needs for the development of the system. Prioritising tasks according to importance, meeting deadlines through forward planning.

5. Problem Solving

   Identifying sources needed for the development of new datasets. Developing systems that will make the NTRAC system more user friendly.

6. Decision Making

   Deciding on the structure of the database and its datasets in conjunction with research manager and IT team. Input on how to make the database more secure and the debugging of database and application.
7. Key Contacts/Relationships
Contact with the research manager to discuss the progress of the development of the system.
Collaboration with the e-scientists for discussing the IT system and development of components. Developing aspects of the system to allow it to interlink with other systems for data transfer. These other databases may not be the same as the NTRAC database i.e. would involve writing code to transfer between MySQL and access/oracle.
Collaboration with the nurses to identify their needs for the system. These can be developing new components or altering what is already there. This would be done on a daily basis.
Provide support for researchers using the data that has been collected.
Other data managers e.g. SCRN, CRUK
IT manager CRF

8. Knowledge, Skills and Experience Needed for the Job
Masters degree in IT subject OR
UG degree in IT PLUS 3-5 years relevant experience.
Strong computing skills: MS Office products and specialist software.
Database skills: MySQL, Oracle Forms, Oracle database, Writing PL/SQL, SQL and Microsoft Access. Ability and understanding of data curation, definition of data standards.
Web Skills: XML, XSLT, HTML, XHTML, Macromedia Dreamweaver
Good interpersonal skills are needed as the database manager works with a variety of different people on a daily basis.
Understanding of NHS IT systems and data exchange from the NHS to other parties.

9. Dimensions
To Provide IT support for the NTRAC team (5) /NTRAC system users (aprox. 80).
Making relevant changes to databases when requested by users and or managers.
Adding new components to the system when required.

10. Job Context and any other relevant information
The job-holder operates in a technically complex and diverse field, often requiring specialist knowledge of software.