

Pengembangan database mikroorganisme indigenos indonesia

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=117387&lokasi=lokal>

Abstrak

Penelitian bertujuan membangun dan mengembangkan database mikroorganisme indigenos Indonesia yang berbasis di Universitas Indonesia. Pengembangan sistem aplikasi database mikroorganisme indigenos Indonesia dilakukan melalui beberapa tahap, yaitu: identifikasi data, desain database, programming, entri data, testing dan debugging, dan perbaikan serta pemeliharaan. Pengembangan sistem database dilakukan menggunakan perangkat lunak yang berlisensi General Public License (GPL). Nama dan versi perangkat lunak yang digunakan adalah: Linux RedHat 9.0 (operating system), Apache ver. 2.20 (web server), MySQL ver. 4.2 (database server), dan PHP ver. 4.3 (web interface programming language).

Hasil yang diperoleh pada penelitian ini adalah telah dibangun sebuah database dengan nama UI Bioinfo, dengan fasilitas: pelayanan pencarian katalog koleksi biakan UICC (University of Indonesia Culture Collection) secara online dan pelayanan pencarian homologi sekuen terhadap data koleksi melalui program BLAST (Basic Local Alignment Search Tool). Pengumpulan informasi terpadu dimulai dari koleksi khamir UICC. Saat ini database UI Bioinfo menyimpan informasi terpadu dari 297 strain khamir yang meliputi data isolasi; deskripsi morfologi; fisiologi-biokimia, foto-foto, data sekuen gen large subunit ribosomal RNA (LSU rRNA) dan internal transcribed spacers (ITS regions). Sistem database mikroorganisme indigenos yang telah dikembangkan, untuk sementara dapat diakses melalui situs <http://152.118.162.250/bio/>. Pengembangan database selanjutnya akan dilakukan dengan penambahan informasi dari koleksi yang belum dideskripsi.

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Development of Database for Indigenous Indonesian Microorganisms. The objective of the research is to create and develop a database of indigenous Indonesian microorganisms based at the University of Indonesia. Development of the database of indigenous Indonesian microorganisms was carried out in several stages, i.e. data identification, database design, programming, data entry, testing and debugging, and repairing and maintenance. Development of the database utilized the licensed software of General Public License (GPL), which include Linux RedHat 9.0 (operating system), Apache ver. 2.20 (web server), MySQL ver. 4.2 (database server), and PHP ver. 4.3 (web interface programming language).

The result of this research is a database named UI Bioinfo which has the following facilities: online catalog search for UICC (University of Indonesia Culture Collection) strains collection and sequence homology search utility through BLAST (Basic Local Alignment Search Tool). Integrated information on strains collection was first carried out on the yeast collection. At present, UI Bioinfo contains information for 297 strains that includes isolation data, morphological descriptions, physiology-biochemical characteristics, and images. Moreover it also contains sequence data from the large subunit (LSU) ribosomal RNA gene and the internal transcribed spacer (ITS) regions. UI Bioinfo can be accessed from the following site: <http://152.118.162.250/bio/>. Future development will be addition of data from the other collections in UICC.