



Faculty of Applied Sciences Department of Computer Science

Student No : P004 240F

* 9 2 0 0 4 0 1 2 9 6 6 *

NUST Library

Student Name: Sizolwenkosi Ndlovu

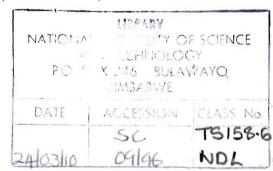
Project Title: Dial Up Authentication & Billing.

System (DUABS)

Area of Study: Remote Authentication Dial In

User Service (RADIUS)

Supervisor: Mr. T Nyathi



Research Project submitted in Partial Fulfillment of the requirements of the Bachelor of Science (Hons) Degree in Computer Science (June 2008)





Abstract

This document gives an entire coverage of the work that was done in carrying out the software project of developing a Remote Authentication Dial In User Service (RADIUS) client and server system, which is specifically named as a Dial Up Authentication and Billing System (DUABS) in this context. A RADIUS server is a server application that listens for Internet dial up connections from clients, authenticates them and bills them for that Internet service. The project is the development of a client-server system for Internet dial up clients, this system should authenticate users wishing to access the Internet and bill them according to the time they spend on the Internet. This system should also come with an Electronic Bill Payment component that should enable users to pay for their Internet sessions online, using Banking transfers. This project was undertaken so as to address and overcome the weaknesses of current similar systems and also to add and improve on the functionality that they present to users, so as to offer a more compliant and competent system that users can trust and rely on to handle their accounts and billing. This project describes all the activities that were undertaken from the Inception stage of the project development to the system deployment stage. It includes a detailed description of the methodology that was applied in the development of this project, the Incremental process model. It also describes and presents various Object Oriented techniques that were applied. The document also depicts in detail, the gathering of requirements and the designing of the system. Other similar existing technologies are surveyed in the literature review chapter. The system in context was developed using Java and MySQL as the Database Management System.