

# Project Design Presentation

## nSite Central

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CS 498 Senior Project

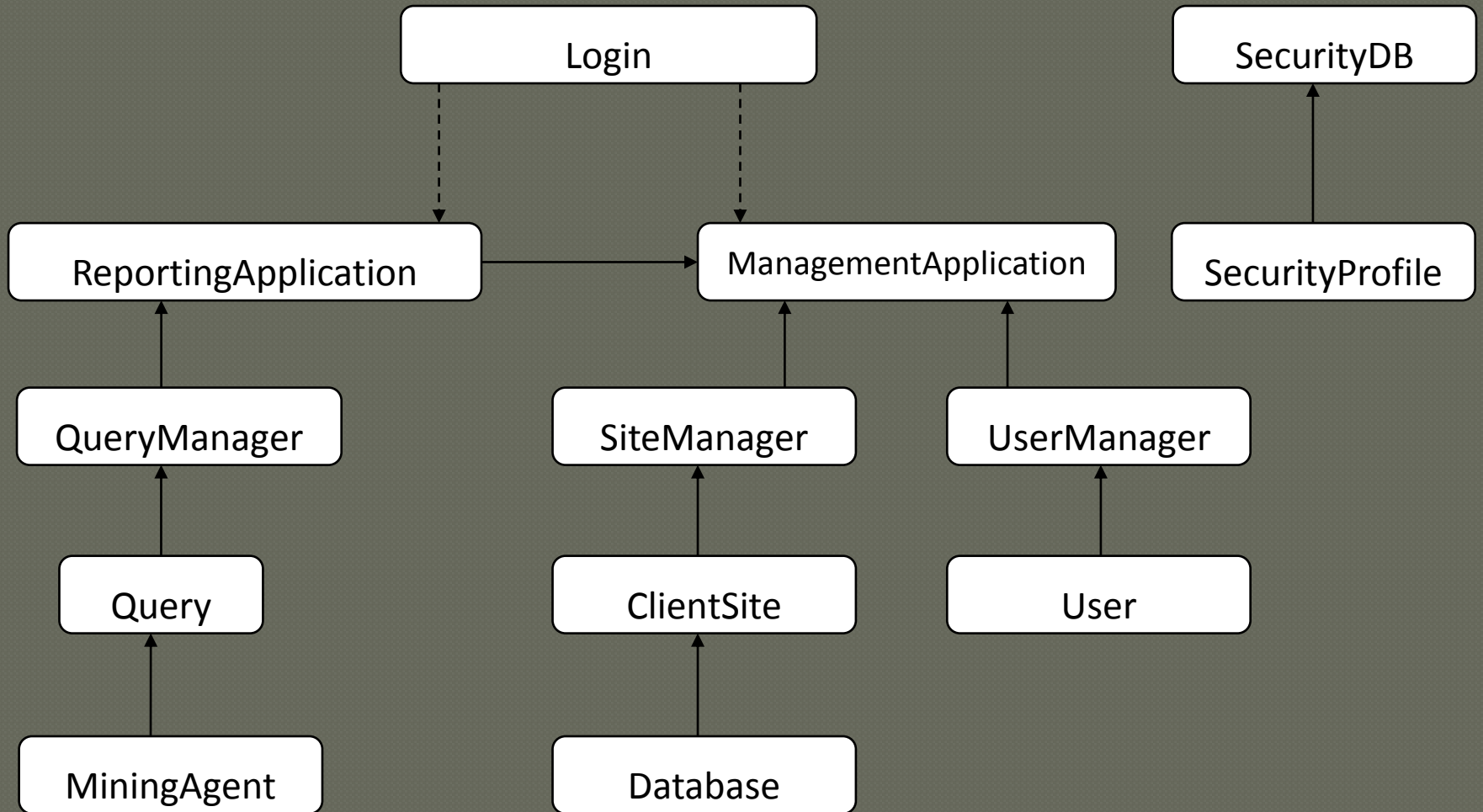
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# Brief Overview

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- Class Hierarchy Chart
- UML Diagrams
- Security Database Schema
- GUI Screenshots

# Class Hierarchy Chart



# Main Classes

## Login

The Login class is responsible for allowing users to login by letting them supply a username and password, authenticating each user by cross-referencing the security database, and determining which application, the Reporting or Management, to instantiate for the user.

accountType

username

password

validate()

runApp()

## ReportingApplication

The ReportingApplication class is responsible for displaying the interface for users to make, view, and subscribe to queries.

Privileges

createQueryManager()

## ManagementApplication

The ManagementApplication class is responsible for allowing a privileged user to not only access the ReportingApplication with full access, but also for allowing such a user to access the site manager and user manager interfaces.

Privileges

createQueryManager()

createSiteManager()

createUserManager()

# Reporting Application Classes

## QueryManager

The QueryManager class is responsible for managing all queries made by users. If a user wants to view the results of a query, the QueryManager accesses the results of the desired query inside that particular class instance and displays them to the webpage.

queries[]  
subscriptionList  
addQuery()  
deleteQuery()  
subscribeToQuery()  
unsubscribeToQuery()

## Query

The Query class is responsible for storing an SQL query made by a user. It passes itself to a mining agent, which returns the results of the SQL query back to the Query after querying all client sites. The query then stores the results of its SQL query. Every Query only contains one SQL query and will create only one mining agent.

SQLquery  
queryResults  
miningAgent  
createMiningAgent()  
getQuery()  
setQuery()  
getResults()  
setResults()

## MiningAgent

The MiningAgent class is responsible for collecting and returning the results of a particular SQL query.

queryResults  
destinationSite // a struct that contains all info necessary to connect to dest site

# Management Application Classes

## SiteManager

The SiteManager class is responsible for managing connections to various client sites.

clientSite[]

addClientSite()

deleteClientSite()

modifyClientSite()

## UserManager

The UserManager class is responsible for managing all users, including administrators.

user[]

addUser()

deleteUser()

modifyUser()

## ClientSite

The ClientSite class is responsible for storing all information about a particular client site.

Database

connectToDatabase()

createDatabase()

deleteDatabase()

updateDatabase() // this is a default function for making any modifications to the database

## User

The User class is responsible for storing information about a particular user.

securityProfile

addSecurityProfile()

deleteSecurityProfile()

## Database

The Database class is responsible for storing information on a client site.

ipAddress

portNumber

domainName

# Security Database Classes

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## SecurityProfile

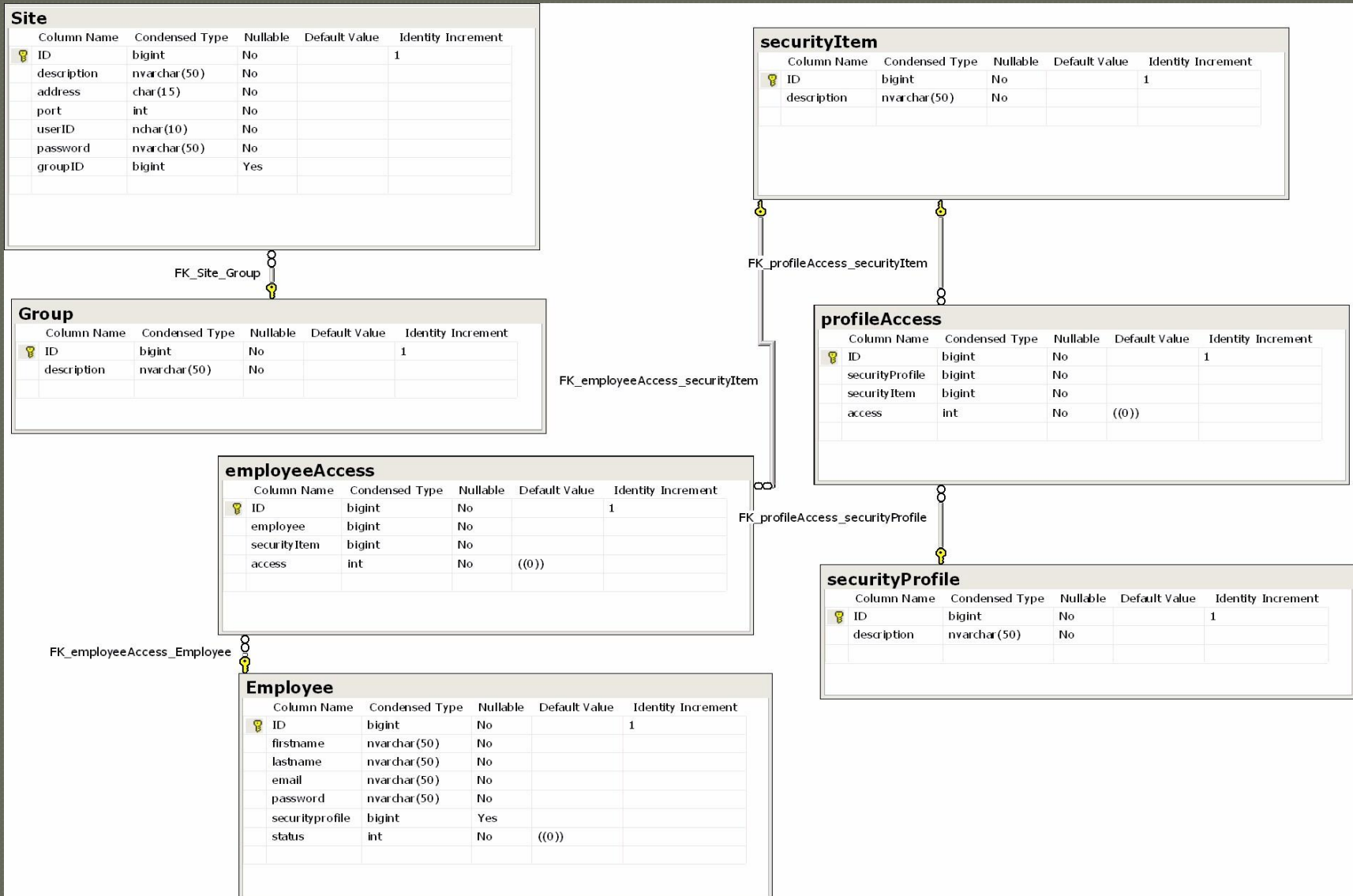
The SecurityProfile class is responsible for maintaining a default set of access level permissions for each security item.

## SecurityDB

The SecurityDB class is responsible for authentication.

securityProfiles[]

# Security Database Schema



# Login page



The image shows a screenshot of a web browser window titled "Welcome to nSite Central". The main heading is "nSite Central Login Page". Below the heading are two input fields: "User Name" and "Password". At the bottom, there are two buttons: "Login" and "Cancel".

Welcome to nSite Central

## nSite Central Login Page

User Name

Password

Login Cancel

# Reporting Application

nSite Central Reporting Application Logout

Customize a Query

Sites to search

Select All Deselect All

- Client Site 1
- Client Site 2
- Client Site 3
- Client Site 4
- Client Site 5
- Client Site 6
- Client Site 7
- Client Site 8

Query Options

Query name

SQL command

- Query Option 1  Query Option 5
- Query Option 2  Query Option 6
- Query Option 3  Query Option 7
- Query Option 4  Query Option 8

Add to Queue

Query Queue

- QueryA Subscribe View Results
- QueryB Subscribe View Results
- QueryC Subscribe View Results
- QueryD Subscribe View Results
- QueryE Subscribe ██████

QueryA Results QueryC Results

	Column1	Column2	Column3	Column4
*				

# Management Application – view 1

Management Application

## nSite Central - Corporate I.S. Management Application

User Management Reporting Application Site Management Logout Admin

Customize a Query

Sites to search

Select All Deselect All

- Client Site 1
- Client Site 2
- Client Site 3
- Client Site 4
- Client Site 5
- Client Site 6
- Client Site 7
- Client Site 8

Query Options

Query Name

SQL Command

- Query Option 1  Query Option 5
- Query Option 2  Query Option 6
- Query Option 3  Query Option 7
- Query Option 4  Query Option 8

Add to queue

Query Queue

- QueryA
- QueryB
- QueryC
- QueryD
- QueryE

QueryA Results QueryC Results

	Column1	Column2	Column3	Column4
*				

# Management Application – view 2

The screenshot shows a web application window titled "Management Application". The main heading is "nSite Central - Corporate I.S. Management Application". Below the heading are three tabs: "User Management", "Reporting Application", and "Site Management" (which is currently selected). A "Logout Admin" button is located in the top right corner.

On the left side, there is a "Site Options" panel containing three buttons: "Add Site", "Save Changes to Sites", and "Remove Site".

The main content area is titled "Client Sites" and contains a table with the following structure:

	sitename	Column2	Column3	Column4	Column5	Column6
*						

The table is mostly obscured by a large grey rectangular area, suggesting a loading or error state.

# Management Application – view 3

The screenshot shows a web application window titled "Management Application". The main heading is "nSite Central - Corporate I.S. Management Application". Below the heading are three tabs: "User Management", "Reporting Application", and "Site Management". A "Logout Admin" button is located in the top right corner. The main content area features a table with the following columns: ID, firstname, lastname, email, password, securityprofile, and status. The first row of the table contains an asterisk (\*) in the ID column. Below the table is a search section with a "Search for user:" label and an input field. An "Advanced Search" button is positioned below the search field. To the right of the search section is a "User Control Options" section containing three buttons: "Create New User", "Save User Changes", and "Remove User".

Management Application

## nSite Central - Corporate I.S. Management Application

User Management Reporting Application Site Management Logout Admin

ID	firstname	lastname	email	password	securityprofile	status
*						

Search for user:

Advanced Search

User Control Options

Create New User Save User Changes Remove User

# Questions?

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