**Monitoring And Alerting In A Domain Name System**

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**Batch 51**

**Overview:**

To create a web application that holds a domain name registry service along with an alerting system that identifies the expiry date of domains i.e whether or not a particular/suggested domain name is in use.

**Modules:**

* User Administration: This module allows an admin to oversee/monitor the details of the entire site. He/she has the ability to select, add, delete, modify and correct errors for both the website and user data.
* User Registration: This module will allow users to register via the site. A site visitor is a user and he/she has the access to search a domain(s) and purchase it from the client (openSRS).
* Registrar API: Over here, by integrating an API into our project, we’re able to check the domain availability.
* Domain renewal via auto mail alert: Admin will inform the user via mail on the domain renewal before the expiration period/day.
* Report: A report will be created in the database regarding the expiry of domains. These expired domains are updated daily as well.

**Design of the site:**

**1) Login page:**

The page will comprise of the website logo along with the buttons needed for logging and signing up. By clicking on these buttons, a separate page or modal will be initiated. These will be done according to the respective button cases.

**---Sign up modal/page: This page will have the following fields in order for the user to sign up :**

* Name: User should enter his/her name and it’s mandatory to be completely in an alphabetic type.
* Email: This allows users to enter their email address. Email can include an alphanumeric type however it must contain the ‘at’ or ‘@’ symbol.
* Password: A field to input the password. Passwords are to be at least 8 characters in terms of length and can contain special characters. The password can be an alphanumeric datatype.
* A button for signing up.
* The login modal can implement social media link integration wherein users have the opportunity to login with their twitter, facebook or gmail account. In case if users forget their passwords, there is a provision to reset the password.

**---The login modal will have the following textboxes and the login button:**

* Email: User can enter his/her email in this field. The username’s datatype can be alphanumeric.
* Password: User enters the password here. Passwords are to alphanumeric, should be at least 8 characters in length and can contain special characters.
* The login modal can implement social media link integration wherein users have the opportunity to login with their twitter, facebook or gmail account. In case if users forget their passwords, there is a provision to reset the password.

**2) Contact form page:**

* Name: name field is used to allow a user to enter his/her name. Name should be restricted to letters only.
* Email: email field is used to allow a user to enter their email address so that it can be easy for us and them to communicate over the platform.
* Message: The message field is used to allow a user to send over the message and is used for feedback. This message along with the name and field are stored in the database.

**3) Admin page:**

* The admin page holds sensitive and important data such as the expiry dates of the domain, the status of a current user and the ownership details.
* The admin will hold access to all the details of the customers.
* The entire Email log and email alert system for domain renewal will also be placed within the admin page.
* Only admin has the complete access to delete an owner or even edit the current status of the domain.

**4) Landing page (Home page):**

* The home page will contain the company logo, a few icons such as About, Contact. There’ll be text related to web hosting and a few images for aesthetic appeal.
* A search bar will be provided in order to search for domain names.
* Home hyperlink will redirect the user to the home page, itself.
* The “About” hyperlink, which sits in the navigation bar, can direct the user to an informative page.
* The ‘Sign up/Login form’ , which sits in the navigation bar, hyperlink redirects the users to a page which allows new users to sign up or existing users to log in.
* The “Contact form” hyperlink, which sits in the navigation bar, will redirect the user to a page wherein he/she can write back a message and communicate with the Web Master.

**6) About page:**

* This page will provide information related to the web application and its services. (In this case, it’s only searching for domains and checking its availability.)

**TABLES REQUIRED:**

**contact\_form table (DB Schema):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Name | Type | Null | Default | Extra |
| 1 | ID | int(11) | No | None | AUTO\_INCREMENT |
| 2 | name | VARCHAR(255) | No | None |  |
| 3 | email | VARCHAR(255) | No | None |  |
| 4 | message | VARCHAR(255) | No | None |  |

**contact\_form table (sample):**

|  |  |  |  |
| --- | --- | --- | --- |
| ID | name | email | message |
| 1 | Cristina James | sweetgirl\_16@yahoo.com | ‘Good!’ |

**sign\_up table (DB Schema):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Name | Type | Null | Default | Extra |
| 1 | ID | int(11) | No | Null | AUTO\_INCREMENT |
| 2 | name | VARCHAR(255) | No | Null |  |
| 3 | email | VARCHAR(255) | No | Null |  |
| 4 | password | VARCHAR(256) | No | Null |  |
| 5 | salt | VARCHAR(256) | no | null |  |

**sign\_up table (sample):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | name | email | password | salt |
| 1 | Paul John | bigrick34\_j@gmail.com | ‘hashed pwd’ | ‘salt from hashed pwd’ |