

SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING

UIT2602 WEB PROGRAMMING LABORATORY

Ex 5: Authentication and authorization

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Aim:

Create a simple Rails web application basic authentication and authorization features.

Steps:

Step 1: create a new Rails application

```
rails new app
```

```
cd app
```

Step 2: generate a controller file for the app

```
rails g controller home index
```

Step 3: generate a model for the app

```
rails generate model User name:string email:string password:string
```

Step 4: Run the migration to create the database table

```
rails db:migrate
```

Step 5: modify the config/routes.rb file to set the root route to the home index

```
Rails.application.routes.draw do
  get 'home/login'
  get 'home/signup'
  post 'home/signup', to: 'home#signup'
  post 'home/login', to: 'home#login'
  root 'home#index'
  get 'home/secrets'
```

```
get "up" => "rails/health#show", as: :rails_health_check  
  
end
```

Step 6: Modify the app/views/resumes/index.html.erb:

```
<div class="container">  
</div>  
<h1>This is Home Page of this basic authentication app</h1>  
</div>
```

Step 7: create and edit signin.html.erb:

```
<div class="container">  
</div>  
<form action="/home/login" method="post">  
  <div class="form-group">  
    <label for="exampleInputEmail1">Email address</label>  
    <input type="email" class="form-control" id="exampleInputEmail1" name="email" aria-describedby="emailHelp">  
  </div>  
  <div class="form-group">  
    <label for="exampleInputPassword1">Password</label>  
    <input type="password" class="form-control" id="exampleInputPassword1" name="password">  
  </div>  
  <button type="submit" class="btn btn-primary">Submit</button>  
</form>  
</div>
```

Step 8: create and edit signup.html.erb:

```
<div class="container">  
</div>  
<form action="/home/signup" method="post">  
  <div class="form-group">  
    <label for="exampleInputName1">UserName</label>
```

```

      <input type="text" class="form-control" id="exampleInputName1"
name="user[name]" aria-describedby="emailHelp">
    </div>
    <div class="form-group">
      <label for="exampleInputEmail1">Email address</label>
      <input type="email" class="form-control" id="exampleInputEmail1"
name="user[email]" aria-describedby="emailHelp">
    </div>
    <div class="form-group">
      <label for="exampleInputPassword1">Password</label>
      <input type="password" class="form-control"
id="exampleInputPassword1" name="user[password]">
    </div>
    <button type="submit" class="btn btn-
primary">Submit</button> </form>
  </div>

```

Step 9: create users.db file:

```

class User < ApplicationRecord
  has_secure_password
  validates :name, presence: true
  validates :email, presence: true, uniqueness: true, format: { with:
URI::MailTo::EMAIL_REGEXP }
  validates :password, presence: true
end

```

Step 10:create _header.html.erb:

```

<nav class="navbar navbar-expand-lg navbar-light bg-light">
  <%= link_to 'Basic Authentication', root_path, class:"navbar-brand" %> <button
    class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-
icon"></span> </button>
  <div class="collapse navbar-collapse"
    id="navbarNav"> <ul class="navbar-nav">
    <li class="nav-item active">
      <%= link_to 'Home', root_path, class:"nav-link"
      %> </li>

```

```

    <li class="nav-item active">
    <%= link_to 'Login', home_login_path, class:"nav-link" %>
    </li>
    <li class="nav-item active">
    <%= link_to 'Sign Up', home_signup_path, class:"nav-link" %>
    </li>
  </ul>
</div>
</nav>

```

Step 11: create secrets.html.erb:

```

<div class="container">
<br>
<div class="jumbotron">
  <h1 class="display-4">Nice, You've executed it successfully</h1>
  <p class="lead">This is a simple secret page for this basic authentication and
  authorization app using ruby on rails.</p>
  <hr class="my-4">
  <p>By the way it took a lot of time to execute this functionality
  especially the bcrypt part </p>
  <%= button_to 'Try Again', root_path, method: :get, class: "btn btn-primary" %>
</div>
</div>

```

Step 12:create application.html.erb

```

<!doctype html>
<html lang="en">
  <head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-
to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.min.css"
integrity="sha384-

```

```

Vkoo8x4CGs03+Hhxv8T/Q5PaXtkKtu6ug5TOeNV6gBiFeWPGFN9MuhOf23Q9Ifjh"
crossorigin="anonymous">

  <title>Basic</title>
  <%= csrf_meta_tags %>
  <%= csp_meta_tag %>

  <%= stylesheet_link_tag "application", "data-turbo-track": "reload"
  %> <%= javascript_importmap_tags %>
</head>
<body>
  <%= render 'home/header' %>

  <% flash.each do |key, message| %>
    <div class="alert alert-<%= key %> alert-dismissible fade show"
      role="alert"> <%= message %>
      <button type="button" class="close" data-dismiss="alert" aria-
label="Close">
        <span aria-
hidden="true">&times;</span> </button>
    </div>
  <% end %>

  <%= yield %>

  <!-- Optional JavaScript -->
  <!-- jQuery first, then Popper.js, then Bootstrap JS -->
  <script src="https://code.jquery.com/jquery-3.4.1.slim.min.js"
integrity="sha384-
J6qa4849b1E2+poT4WnyKhv5vZF5SrPo0iEjwBvKU7imGFAV0wwj1yYfoRSJoZ+n"
crossorigin="anonymous"></script>
  <script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"
integrity="sha384-
Q6E9RHvbIyZFJoft+2mJbHaEWldlvI9IOYy5n3zV9zzTtmI3UksdQRVvoxMfooAo"
crossorigin="anonymous"></script>
  <script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/js/bootstrap.min.js"
integrity="sha384-
wfSDF2E50Y2D1uUdj003uMBJnjuUD4Ih7YwaYd1liqfktj0Uod8GCExl30g8ifwB6"
crossorigin="anonymous"></script>
  </body>
</html>

```

Step 13: Create home_controller.rb:

```
class HomeController < ApplicationController

  before_action :require_login, only: [:secrets]

  def index
  end

  def signup
    @user = User.new(user_params)
    if @user.save
      Rails.logger.info "New user Created : #{@user}"
      redirect_to root_url, notice: "Sign up successful!"
    else
      render :signup
    end
  end

  def login
    email = params[:email]
    password = params[:password]
    loggedin = true
    @user = User.find_by(email: email)
    puts "OK"
    if @user && @user.authenticate(password)
      session[:user_id] = @user.id
      puts "suc"
      redirect_to '/home/secrets', notice: "Logged in successfully!"
    else
      flash.now.alert = "Invalid email/password combination" unless
        loggedin puts "invalid credentials"
      render :login
    end
  end

  def secrets
  end

  private

  def user_params
    params.fetch(:user, {}).permit(:name, :email, :password)
  end
end
```

```
def require_login
  unless session[:user_id]
    flash[:alert] = "You must be logged in to access this page."
    redirect_to "/home/login"
  end
end
end
```

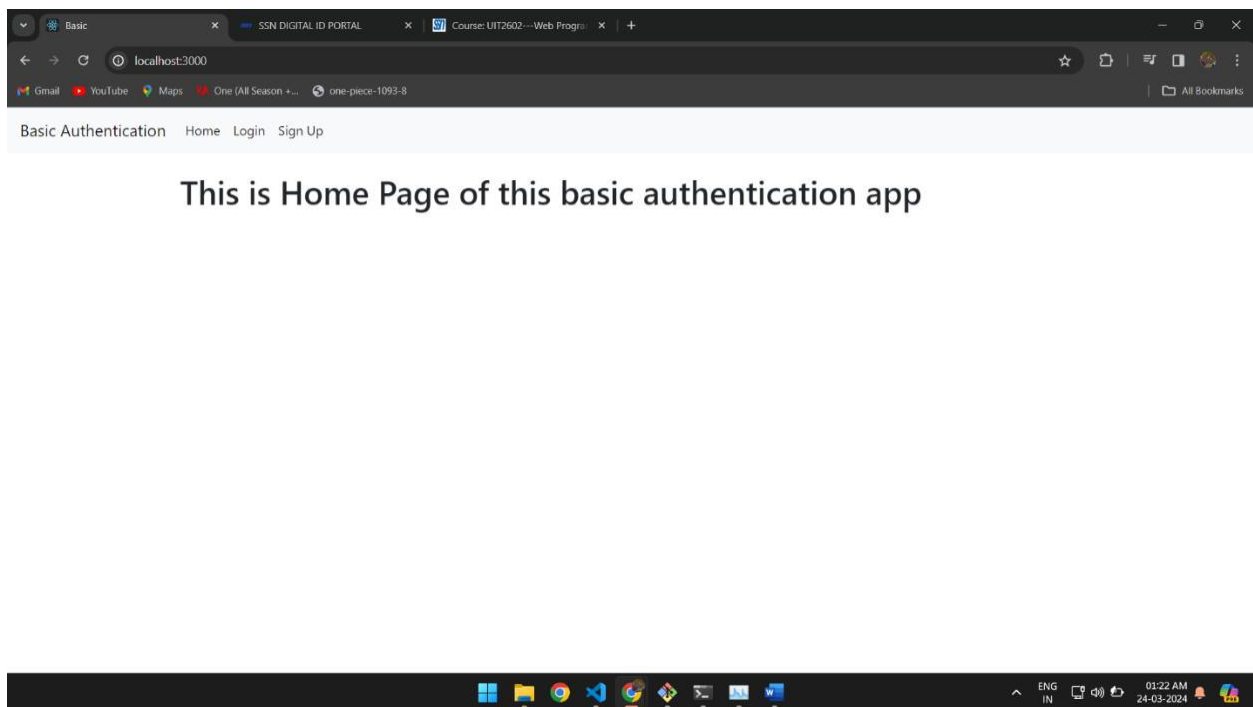
Step 14: start the Rails server

`rails s`

Step 9: now visit <http://localhost:3000> in your browser to see your resume data displayed.

Sample Output:

Home page:



Login Page:

Basic Authentication Home Login Sign Up

Email address

mname5121@gmail.com

Password

.

Submit

01:23 AM 24-03-2024

SignUp Page:

Basic Authentication Home Login Sign Up

UserName

vishwaa

Email address

vishwaa1428@gmail.com

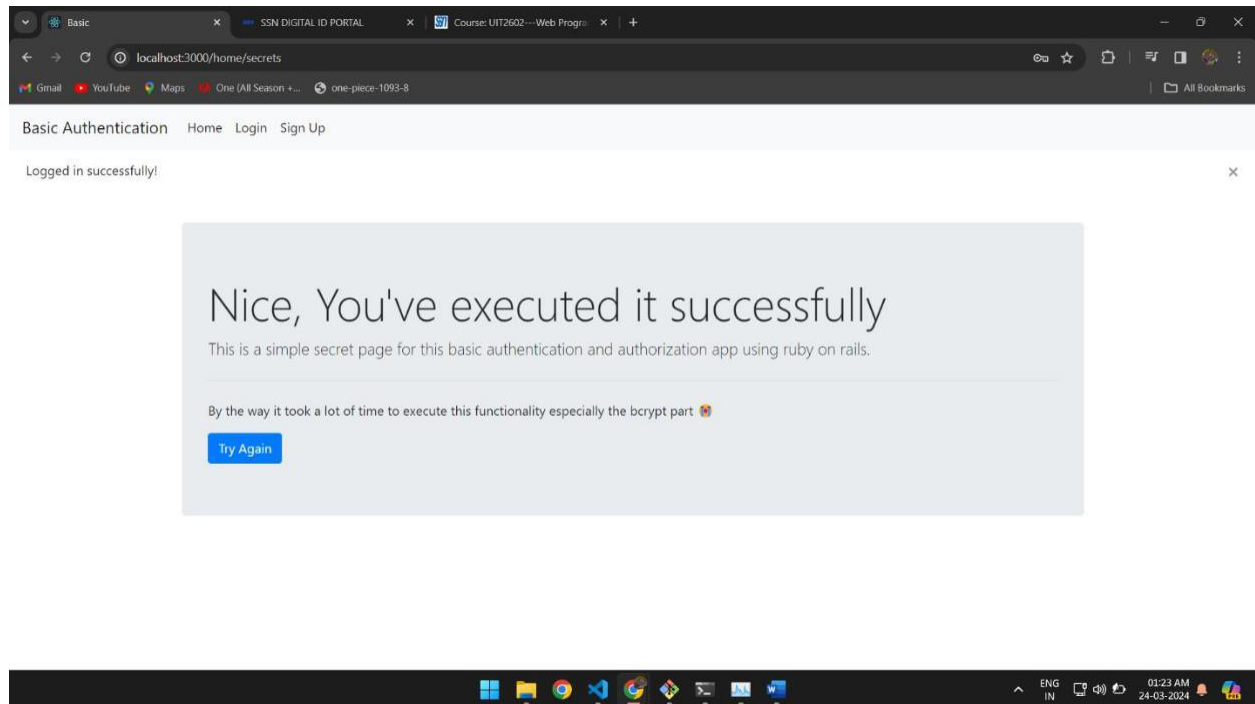
Password

..

Submit

01:23 AM 24-03-2024

Secrets Page:



Conclusion:

A Webpage has been created and executed using Ruby and rails successfully.