

WEBSITE LINK SHORTENER AND TRACKER

A Mini Project Report

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MAY 2025

Problem Statement:

Website Link Tracker: Allows users to shorten URLs and track the number of clicks on those links. (RDBMS: Links, Clicks; Backend: URL shortening logic, click tracking, basic analytics).

Github Link:

<https://github.com/M-Dharani18/URLShortenerApp.git>

<https://github.com/dhavanithim/URLShortenerApp.git>

Modules and Description:

1. User Signup/Login Module

Users can register using their username, email, and password. This module handles login authentication and manages sessions to control access to dashboard features.

2. Admin/User Dashboard Module

After logging in, users are taken to their dashboard where they can view analytics, manage their shortened URLs, and monitor click statistics.

3. URL Shortening Module

Allows users to enter a long URL and generate a unique short URL. The module handles short code creation, validation, and storage.

4. Redirection Module

Handles the redirection process. When a user visits a short URL, this module finds the original URL and redirects the user while logging the click.

5. Analytics and Click Tracking Module

Tracks detailed information about each click on a short URL including timestamp, IP address, country, and browser. This data is displayed in the dashboard.

6. Top Links & Stats Module

Displays the most clicked URLs for a user. Helps users quickly view the performance of their top-performing links.

7. URL Management Module (Edit/Delete)

Users can delete their shortened URLs or view detailed analytics per link. This module ensures clean link management.

8. Database Configuration Module

Manages the connection to the MySQL database using a secure configuration file. Ensures data persistence and integrity.

9. Session Management Module

Maintains login sessions securely using PHP session handling. Prevents unauthorized access to restricted pages.

10. Alerts and Form Validation Module

Provides real-time alerts like “URL shortened successfully” or “Invalid login credentials.” Also validates inputs such as empty fields or invalid URLs.

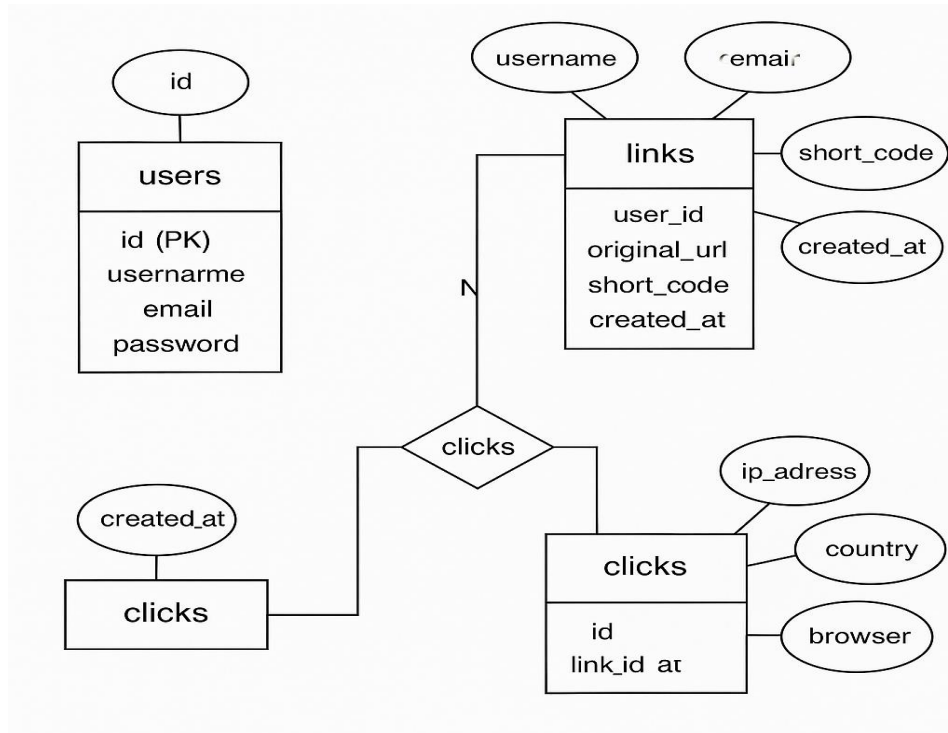
11. Frontend UI Module

Uses CSS and JavaScript for styling and interactivity. Ensures the app is user-friendly and responsive.

12. .htaccess Rewriting Module

Handles clean URL structures and redirects using Apache’s `.htaccess`, ensuring that short codes work as intended.

ER Diagram:



Programming Tools:

1. Frontend (User Interface)

These tools are used to design and structure the visual elements of the web application:

- **HTML (HyperText Markup Language)**
Used to create the structure of the web pages like login, registration, shortening form, and dashboard.
- **CSS (Cascading Style Sheets)**
Used to style the HTML elements, layout the interface, and improve the look and feel of the app (in `assets/css/styles.css`).
- **JavaScript (Basic)**
Provides interactivity in forms, such as showing alert messages and performing client-side validations (`assets/js/scripts.js`).

2. Backend (Server-side Logic)

These tools power the main logic and functionalities behind the web pages:

- **PHP**
The primary backend language used in this project to handle user authentication, URL processing, and data interaction.
- **Apache Server (.htaccess)**
Used for URL rewriting and redirection of short URLs using `mod_rewrite` rules (`.htaccess` file).

3. Database (Data Storage)

This tool is responsible for storing persistent data such as user accounts, shortened URLs, and analytics:

- **MySQL**
Relational database used to store user data, URL mappings, and click analytics. Tables include `users`, `links`, and `clicks`.

4. Visual Studio Code (VS Code)

A source-code editor used to develop the project. Offers features like syntax highlighting, integrated terminal, and extension support for PHP and MySQL.

5. Terminal / Command Prompt

Used to start local servers (Apache/MySQL), run PHP scripts, and manage database operations (e.g., using [phpMyAdmin](#) or [mysql CLI](#)).

6. Web Browser (e.g., Google Chrome)

Used to access and test the web application, including login, URL shortening, redirection, and analytics views.

Database Design: (Give the table structure)

1. User Table:

Column Name	Data Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
username	VARCHAR(50)	NOT NULL, UNIQUE
email	VARCHAR(100)	NOT NULL, UNIQUE
password	VARCHAR(255)	NOT NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP

2. Links Table

Column Name	Data Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
user_id	INT	NULL, FOREIGN KEY → users(id), ON DELETE CASCADE
original_url	TEXT	NOT NULL
short_code	VARCHAR(10)	NOT NULL, UNIQUE
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
click_count	INT	DEFAULT 0

3. Clicks Table

Column Name	Data Type	Constraints
id	INT	PRIMARY KEY, AUTO_INCREMENT
link_id	INT	NOT NULL, FOREIGN KEY → links(id), ON DELETE CASCADE
ip_address	VARCHAR(45)	
country	VARCHAR(100)	
browser	VARCHAR(100)	
clicked_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP

SQL Query:

Table: users

```
CREATE TABLE IF NOT EXISTS users (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    username VARCHAR(50) NOT NULL UNIQUE,  
    email VARCHAR(100) NOT NULL UNIQUE,  
    password VARCHAR(255) NOT NULL,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
);
```

Table: links

```
CREATE TABLE IF NOT EXISTS links (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    user_id INT NULL, -- NULL for guest users  
    original_url TEXT NOT NULL,  
    short_code VARCHAR(10) NOT NULL UNIQUE,  
    created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    click_count INT DEFAULT 0,  
    FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE  
);
```

Table: clicks

```
CREATE TABLE IF NOT EXISTS clicks (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    link_id INT NOT NULL,  
    ip_address VARCHAR(45),  
    country VARCHAR(100),  
    browser VARCHAR(100),  
    clicked_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (link_id) REFERENCES links(id) ON DELETE CASCADE  
);
```

Coding:

index.php

```
<?php  
require_once 'includes/session.php';  
require_once 'includes/functions.php';  
require_once 'config/db.php';  
  
$error = "";  
$shortened_url = "";  
  
if ($_SERVER['REQUEST_METHOD'] === 'POST') {
```

```

$original_url = sanitizeInput($_POST['url'] ?? '');

if (empty($original_url)) {
    $error = 'Please enter a URL to shorten';
} elseif (!filter_var($original_url, FILTER_VALIDATE_URL)) {
    $error = 'Please enter a valid URL';
} else {
    $user_id = getUserId();

    // Generate a unique short code
    $short_code = generateShortCode();

    // Make sure the short code is unique
    $stmt = $pdo->prepare("SELECT id FROM links WHERE short_code = ?");
    $stmt->execute([$short_code]);

    while ($stmt->rowCount() > 0) {
        $short_code = generateShortCode();
        $stmt->execute([$short_code]);
    }

    $stmt = $pdo->prepare("INSERT INTO links (user_id, original_url, short_code) VALUES (?, ?, ?)");

    if ($stmt->execute([$user_id, $original_url, $short_code])) {
        $site_url = (isset($_SERVER['HTTPS']) && $_SERVER['HTTPS'] === 'on' ? "https" : "http") . "://" . $_SERVER['HTTP_HOST'];
        // $shortened_url = $site_url . "/shorten/redirect.php?code=" . $short_code;
        $shortened_url = $site_url . "/UrlShortenerApp/" . $short_code;
    } else {
        $error = 'An error occurred while shortening the URL. Please try again.';
    }
}

?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>URL Shortener</title>
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/4.1.1/animate.min.css">
    <style>
        :root {
            --primary: #3498db;
            --primary-dark: #2980b9;
            --secondary: #2c3e50;
            --light: #ecf0f1;
            --success: #2ecc71;
            --danger: #e74c3c;
            --gray: #95a5a6;
            --white: #ffffff;
            --shadow: 0 4px 6px rgba(0, 0, 0, 0.1);
            --transition: all 0.3s ease;

```



```
}

* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

body {
  background-color: #f5f7fa;
  color: var(--secondary);
  overflow-x: hidden;
}

.container {
  width: 100%;
  max-width: 1200px;
  margin: 0 auto;
  padding: 0 20px;
}

/* Header styles */
header {
  background-color: var(--primary);
  color: var(--white);
  padding: 20px 0;
  box-shadow: var(--shadow);
  position: sticky;
  top: 0;
  z-index: 100;
}

header .container {
  display: flex;
  justify-content: space-between;
  align-items: center;
}

header h1 {
  display: flex;
  align-items: center;
  font-size: 24px;
  font-weight: 600;
}

header h1 i {
  margin-right: 10px;
  font-size: 28px;
}

nav {
  display: flex;
```

```
    gap: 15px;
}

nav a {
  color: var(--white);
  text-decoration: none;
  padding: 8px 15px;
  border-radius: 4px;
  font-weight: 500;
  transition: var(--transition);
  display: flex;
  align-items: center;
}

nav a i {
  margin-right: 6px;
}

nav a:hover {
  background-color: rgba(255, 255, 255, 0.15);
  transform: translateY(-2px);
}

/* Main content styles */
main {
  padding: 60px 0;
}

.hero-section {
  text-align: center;
  margin-bottom: 40px;
}

.hero-section h2 {
  font-size: 36px;
  margin-bottom: 20px;
  animation: fadeInDown 1s;
}

.hero-section p {
  font-size: 18px;
  color: var(--gray);
  max-width: 600px;
  margin: 0 auto 30px;
  animation: fadeIn 1.5s;
}

/* URL form styles */
.url-form {
  background-color: var(--white);
  border-radius: 10px;
  padding: 40px;
  box-shadow: var(--shadow);
```

```
margin-bottom: 60px;
animation: fadeInUp 1s;
max-width: 800px;
margin-left: auto;
margin-right: auto;
}

.url-form h2 {
margin-bottom: 30px;
text-align: center;
color: var(--secondary);
position: relative;
}

.url-form h2:after {
content: "";
position: absolute;
bottom: -10px;
left: 50%;
transform: translateX(-50%);
width: 50px;
height: 3px;
background-color: var(--primary);
border-radius: 3px;
}

.error {
background-color: #ffecee;
color: var(--danger);
padding: 12px;
border-radius: 6px;
margin-bottom: 20px;
font-size: 14px;
animation: shake 0.5s;
}

.form-group {
display: flex;
box-shadow: 0 2px 10px rgba(0, 0, 0, 0.08);
border-radius: 6px;
overflow: hidden;
}

.form-group input {
flex: 1;
padding: 16px 20px;
border: none;
font-size: 16px;
outline: none;
}

.form-group button {
background-color: var(--primary);
```

```
    color: var(--white);
    border: none;
    padding: 0 30px;
    font-size: 16px;
    font-weight: 600;
    cursor: pointer;
    transition: var(--transition);
}

.form-group button:hover {
    background-color: var(--primary-dark);
}

/* Result section styles */
.result {
    margin-top: 30px;
    padding: 25px;
    background-color: #f0f9ff;
    border-radius: 8px;
    border-left: 4px solid var(--primary);
    animation: bounceIn 0.8s;
}

.result h3 {
    color: var(--secondary);
    margin-bottom: 15px;
    font-size: 18px;
}

.shortened-url {
    display: flex;
    margin-bottom: 20px;
}

.shortened-url input {
    flex: 1;
    padding: 12px 15px;
    border: 1px solid #ddd;
    border-radius: 4px 0 0 4px;
    font-size: 15px;
    color: var(--primary);
    background-color: var(--white);
}

.shortened-url button {
    background-color: var(--success);
    color: var(--white);
    border: none;
    padding: 0 20px;
    border-radius: 0 4px 4px 0;
    font-weight: 600;
    cursor: pointer;
    transition: var(--transition);
}
```

```
}

.shortened-url button:hover {
  background-color: #27ae60;
}

/* Register prompt styles */
.register-prompt {
  background-color: #fff8e1;
  padding: 20px;
  border-radius: 8px;
  text-align: center;
  border-left: 4px solid #f1c40f;
  animation: fadeIn 1s;
}

.register-prompt p {
  margin-bottom: 15px;
  font-size: 15px;
}

.btn {
  display: inline-block;
  padding: 10px 20px;
  background-color: var(--primary);
  color: var(--white);
  text-decoration: none;
  border-radius: 4px;
  font-weight: 600;
  transition: var(--transition);
}

.btn:hover {
  background-color: var(--primary-dark);
  transform: translateY(-2px);
}

/* Features section styles */
.features {
  padding: 40px 0;
}

.features h2 {
  text-align: center;
  margin-bottom: 50px;
  font-size: 28px;
  position: relative;
  animation: fadeIn 1s;
}

.features h2:after {
  content: "";
  position: absolute;
```

```
    bottom: -15px;
    left: 50%;
    transform: translateX(-50%);
    width: 70px;
    height: 3px;
    background-color: var(--primary);
    border-radius: 3px;
}

.feature-grid {
    display: grid;
    grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
    gap: 30px;
}

.feature {
    background-color: var(--white);
    border-radius: 8px;
    padding: 30px;
    box-shadow: var(--shadow);
    transition: var(--transition);
    text-align: center;
    position: relative;
    overflow: hidden;
}

.feature:hover {
    transform: translateY(-10px);
    box-shadow: 0 10px 20px rgba(0, 0, 0, 0.1);
}

.feature:before {
    content: "";
    position: absolute;
    top: 0;
    left: 0;
    width: 4px;
    height: 100%;
    background-color: var(--primary);
    transform: scaleY(0);
    transition: transform 0.3s ease;
    transform-origin: bottom;
}

.feature:hover:before {
    transform: scaleY(1);
}

.feature i {
    font-size: 40px;
    color: var(--primary);
    margin-bottom: 20px;
    transition: var(--transition);
}
```

```

}

.feature:hover i {
  transform: scale(1.1);
}

.feature h3 {
  margin-bottom: 15px;
  font-size: 20px;
}

.feature p {
  color: var(--gray);
  line-height: 1.6;
}

/* Stats section */
.stats-section {
  background-color: var(--primary);
  color: var(--white);
  padding: 60px 0;
  margin: 60px 0;
}

.stats-container {
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(200px, 1fr));
  gap: 30px;
  text-align: center;
}

.stat-item {
  padding: 30px;
}

.stat-number {
  font-size: 46px;
  font-weight: 700;
  margin-bottom: 10px;
}

.stat-label {
  font-size: 16px;
  text-transform: uppercase;
  letter-spacing: 1px;
}

/* How it works section */
.how-it-works {
  padding: 60px 0;
}

.how-it-works h2 {

```

```
text-align: center;
margin-bottom: 50px;
font-size: 28px;
position: relative;
}

.how-it-works h2:after {
  content: "";
  position: absolute;
  bottom: -15px;
  left: 50%;
  transform: translateX(-50%);
  width: 70px;
  height: 3px;
  background-color: var(--primary);
  border-radius: 3px;
}

.steps {
  display: flex;
  justify-content: space-between;
  max-width: 900px;
  margin: 0 auto;
  position: relative;
}

.steps:before {
  content: "";
  position: absolute;
  top: 40px;
  left: 60px;
  right: 60px;
  height: 3px;
  background-color: #ddd;
  z-index: 0;
}

.step {
  text-align: center;
  position: relative;
  z-index: 1;
  width: 120px;
}

.step-number {
  width: 80px;
  height: 80px;
  background-color: var(--primary);
  color: var(--white);
  border-radius: 50%;
  display: flex;
  align-items: center;
  justify-content: center;
```



```
font-size: 28px;
font-weight: 700;
margin: 0 auto 20px;
position: relative;
}

.step p {
  font-size: 14px;
  color: var(--secondary);
}

/* Footer styles */
footer {
  background-color: var(--secondary);
  color: var(--light);
  padding: 30px 0;
  text-align: center;
}

footer p {
  font-size: 14px;
}

/* Animations */
@keyframes fadeIn {
  from { opacity: 0; }
  to { opacity: 1; }
}

@keyframes fadeInUp {
  from {
    opacity: 0;
    transform: translateY(20px);
  }
  to {
    opacity: 1;
    transform: translateY(0);
  }
}

@keyframes fadeInDown {
  from {
    opacity: 0;
    transform: translateY(-20px);
  }
  to {
    opacity: 1;
    transform: translateY(0);
  }
}

@keyframes bounceIn {
  0% {
```

```

        opacity: 0;
        transform: scale(0.8);
    }
    70% {
        transform: scale(1.05);
    }
    100% {
        opacity: 1;
        transform: scale(1);
    }
}

@keyframes shake {
    0% { transform: translateX(0); }
    20% { transform: translateX(-10px); }
    40% { transform: translateX(10px); }
    60% { transform: translateX(-10px); }
    80% { transform: translateX(10px); }
    100% { transform: translateX(0); }
}

/* Animation classes */
.animate-fadeIn { animation: fadeIn 1s; }
.animate-fadeInUp { animation: fadeInUp 1s; }
.animate-fadeInDown { animation: fadeInDown 1s; }
.animate-bounceIn { animation: bounceIn 0.8s; }

/* Animation delays */
.delay-100 { animation-delay: 0.1s; }
.delay-200 { animation-delay: 0.2s; }
.delay-300 { animation-delay: 0.3s; }
.delay-400 { animation-delay: 0.4s; }
.delay-500 { animation-delay: 0.5s; }

/* Responsive styles */
@media (max-width: 768px) {
    .feature-grid {
        grid-template-columns: 1fr;
    }

    .steps {
        flex-direction: column;
        align-items: center;
        gap: 40px;
    }

    .steps:before {
        left: 50%;
        top: 40px;
        bottom: 40px;
        width: 3px;
        height: auto;
        transform: translateX(-50%);
    }
}

```

```

    }

    .url-form {
        padding: 25px;
    }

    .form-group {
        flex-direction: column;
    }

    .form-group input {
        border-bottom: 1px solid #eee;
    }

    .form-group button {
        padding: 15px;
    }

    .shortened-url {
        flex-direction: column;
    }

    .shortened-url input {
        border-radius: 4px 4px 0 0;
    }

    .shortened-url button {
        border-radius: 0 0 4px 4px;
        padding: 12px;
    }
}
</style>
</head>
<body>
<header>
<div class="container">
<h1><i class="fas fa-link"></i> URL Shortener</h1>
<nav>
<?php if (isLoggedIn()): ?>
    <a href="dashboard/index.php"><i class="fas fa-chart-line"></i> Dashboard</a>
    <a href="auth/logout.php"><i class="fas fa-sign-out-alt"></i> Logout</a>
<?php else: ?>
    <a href="auth/login.php"><i class="fas fa-sign-in-alt"></i> Login</a>
    <a href="auth/register.php"><i class="fas fa-user-plus"></i> Register</a>
<?php endif; ?>
</nav>
</div>
</header>

<main>
<div class="container">
<section class="hero-section">
<h2 class="animate-fadeInDown">Simplify Your Links</h2>

```

```
<p class="animate-fadeIn delay-200">Transform long, unwieldy URLs into clean, memorable, and trackable short links in seconds.</p>
</section>
```

```
<section class="url-form animate-fadeInUp delay-300">
```

```
<h2>Shorten Your URL</h2>
```

```
<?php if ($error): ?>
```

```
<div class="error"><?php echo $error; ?></div>
```

```
<?php endif; ?>
```

```
<form action="" method="post">
```

```
<div class="form-group">
```

```
<input type="url" name="url" id="url" placeholder="Enter your long URL here" required>
```

```
<button type="submit"><i class="fas fa-bolt"></i> Shorten</button>
```

```
</div>
```

```
</form>
```

```
<?php if ($shortened_url): ?>
```

```
<div class="result">
```

```
<h3>Your Shortened URL:</h3>
```

```
<div class="shortened-url">
```

```
<input type="text" id="shortened-url" value="<?php echo $shortened_url; ?>" readonly>
```

```
<button onclick="copyToClipboard()"><i class="fas fa-copy"></i> Copy</button>
```

```
</div>
```

```
<?php if (!isLoggedIn): ?>
```

```
<div class="register-prompt">
```

```
<p><i class="fas fa-info-circle"></i> Create an account to track analytics and manage your shortened
```

```
URLs!</p>
```

```
<a href="auth/register.php" class="btn"><i class="fas fa-user-plus"></i> Register Now</a>
```

```
</div>
```

```
<?php endif; ?>
```

```
</div>
```

```
<?php endif; ?>
```

```
</section>
```

```
<section class="features">
```

```
<h2>Why Use Our URL Shortener?</h2>
```

```
<div class="feature-grid">
```

```
<div class="feature animate-fadeInUp delay-100">
```

```
<i class="fas fa-bolt"></i>
```

```
<h3>Easy to Use</h3>
```

```
<p>Shorten your URLs with just one click, no registration required.</p>
```

```
</div>
```

```
<div class="feature animate-fadeInUp delay-200">
```

```
<i class="fas fa-chart-line"></i>
```

```
<h3>Track Your Links</h3>
```

```
<p>Create an account to access detailed analytics about your shortened URLs.</p>
```

```
</div>
```

```
<div class="feature animate-fadeInUp delay-300">
```

```
<i class="fas fa-history"></i>
```

```
<h3>Manage Your History</h3>
```

```
<p>View and delete your previously created links anytime.</p>
```

```
</div>
```

```
    <div class="feature animate-fadeInUp delay-400">
      <i class="fas fa-tachometer-alt"></i>
      <h3>Fast Redirection</h3>
      <p>Our system ensures quick redirection to your original URLs.</p>
    </div>
  </div>
</section>
```

```
    <!-- Features Highlight Section -->
<section class="features-highlight">
  <div class="container">
    <div class="section-header animate-fadeIn">
      <h2>Powerful Features to Supercharge Your Links</h2>
      <p>Everything you need to create, manage, and analyze your shortened URLs</p>
    </div>

    <div class="features-grid">
      <!-- Feature Card 1 -->
      <div class="feature-card animate-fadeIn delay-100">
        <div class="feature-icon">
          <i class="fas fa-bolt"></i>
        </div>
        <div class="feature-content">
          <h3>Instant Shortening</h3>
          <p>Create short, memorable links in seconds with our lightning-fast URL shortener.</p>
        </div>
      </div>

      <!-- Feature Card 2 -->
      <div class="feature-card animate-fadeIn delay-200">
        <div class="feature-icon">
          <i class="fas fa-chart-line"></i>
        </div>
        <div class="feature-content">
          <h3>Detailed Analytics</h3>
          <p>Track clicks, geographic locations, devices, and more with our comprehensive dashboard.</p>
        </div>
      </div>

      <!-- Feature Card 3 -->
      <div class="feature-card animate-fadeIn delay-300">
        <div class="feature-icon">
          <i class="fas fa-lock"></i>
        </div>
        <div class="feature-content">
          <h3>Secure & Reliable</h3>
          <p>Enterprise-grade security and 99.9% uptime ensure your links work when you need them.</p>
        </div>
      </div>

      <!-- Feature Card 4 -->
      <div class="feature-card animate-fadeIn delay-400">
        <div class="feature-icon">
```

```
        <i class="fas fa-magic"></i>
    </div>
    <div class="feature-content">
        <h3>Custom Domains</h3>
        <p>Use your own branded domain for shortened links to increase trust and recognition.</p>
    </div>
</div>
```

```
<!-- Feature Card 6 (now Card 5) -->
<div class="feature-card animate-fadeIn delay-500">
    <div class="feature-icon">
        <i class="fas fa-mobile-alt"></i>
    </div>
    <div class="feature-content">
        <h3>Mobile Optimized</h3>
        <p>Create and manage links on the go with our fully responsive mobile experience.</p>
    </div>
</div>
```

```
</div>
</section>
```

```
<style>
/* Features Highlight Section Styling */
.features-highlight {
    padding: 80px 0;
    background: #e6f7ff;
}
```

```
.section-header {
    text-align: center;
    margin-bottom: 50px;
}
```

```
.section-header h2 {
    font-size: 2.5rem;
    color: #2d3748;
    margin-bottom: 15px;
    font-weight: 700;
}
```

```
.section-header p {
    font-size: 1.1rem;
    color: #4a5568;
    max-width: 700px;
    margin: 0 auto;
}
```

```
.features-grid {
    display: grid;
    grid-template-columns: repeat(auto-fill, minmax(300px, 1fr));
}
```

```
gap: 30px;
margin-bottom: 50px;
}
```

```
.feature-card {
  background: white;
  border-radius: 10px;
  padding: 30px;
  box-shadow: 0 10px 20px rgba(0, 0, 0, 0.05);
  transition: all 0.3s ease;
  display: flex;
  flex-direction: column;
  height: 100%;
}
```

```
.feature-card:hover {
  transform: translateY(-5px);
  box-shadow: 0 15px 30px rgba(0, 0, 0, 0.1);
}
```

```
.feature-icon {
  font-size: 2.5rem;
  color: #3182ce;
  margin-bottom: 20px;
  transition: all 0.3s ease;
}
```

```
.feature-card:hover .feature-icon {
  transform: scale(1.1);
}
```

```
.feature-content h3 {
  font-size: 1.3rem;
  color: #2d3748;
  margin-bottom: 10px;
  font-weight: 600;
}
```

```
.feature-content p {
  color: #4a5568;
  line-height: 1.6;
}
```

```
.cta-container {
  display: flex;
  justify-content: center;
  gap: 20px;
  margin-top: 20px;
}
```

```
.btn {
  padding: 12px 25px;
  font-size: 1rem;
}
```

```
font-weight: 600;
border-radius: 30px;
text-decoration: none;
transition: all 0.3s ease;
text-align: center;
}

.btn-primary {
  background-color: #3182ce;
  color: white;
  box-shadow: 0 4px 6px rgba(49, 130, 206, 0.25);
}

.btn-primary:hover {
  background-color: #2c5282;
  transform: translateY(-2px);
  box-shadow: 0 7px 14px rgba(49, 130, 206, 0.25);
}

.btn-secondary {
  background-color: white;
  color: #3182ce;
  border: 2px solid #3182ce;
}

.btn-secondary:hover {
  background-color: #ebf8ff;
  transform: translateY(-2px);
}

/* Animation classes */
.animate-fadeIn {
  animation: fadeIn 0.8s ease forwards;
  opacity: 0;
}

.delay-100 { animation-delay: 0.1s; }
.delay-200 { animation-delay: 0.2s; }
.delay-300 { animation-delay: 0.3s; }
.delay-400 { animation-delay: 0.4s; }
.delay-500 { animation-delay: 0.5s; }
.delay-600 { animation-delay: 0.6s; }
.delay-700 { animation-delay: 0.7s; }

@keyframes fadeIn {
  from {
    opacity: 0;
    transform: translateY(20px);
  }
  to {
    opacity: 1;
    transform: translateY(0);
  }
}
```



```

}

/* Responsive adjustments */
@media (max-width: 768px) {
  .features-grid {
    grid-template-columns: 1fr;
  }

  .section-header h2 {
    font-size: 2rem;
  }

  .cta-container {
    flex-direction: column;
  }

  .btn {
    width: 100%;
    margin-bottom: 10px;
  }
}
</style>

```

```

<section class="how-it-works">
  <h2>How It Works</h2>
  <div class="steps">
    <div class="step animate-fadeInUp delay-100">
      <div class="step-number">1</div>
      <p>Paste your long URL</p>
    </div>
    <div class="step animate-fadeInUp delay-200">
      <div class="step-number">2</div>
      <p>Click "Shorten"</p>
    </div>
    <div class="step animate-fadeInUp delay-300">
      <div class="step-number">3</div>
      <p>Copy your short link</p>
    </div>
    <div class="step animate-fadeInUp delay-400">
      <div class="step-number">4</div>
      <p>Track performance</p>
    </div>
  </div>
</section>
</div>
</main>

<footer>
  <div class="container">
    <p>&copy; <?php echo date('Y'); ?> URL Shortener. All rights reserved.</p>
  </div>
</footer>

```

```

<script>
// Animation for elements as they scroll into view
document.addEventListener('DOMContentLoaded', function() {
  const animateOnScroll = function() {
    const elements = document.querySelectorAll('.feature, .step, .stat-item');

    elements.forEach(element => {
      const position = element.getBoundingClientRect();

      // If element is in viewport
      if(position.top < window.innerHeight && position.bottom >= 0) {
        if (!element.classList.contains('animated')) {
          element.classList.add('animated');
          element.style.opacity = '1';
          element.style.transform = 'translateY(0)';
        }
      }
    });
  };

  // Initial setup for animation
  const elements = document.querySelectorAll('.feature, .step, .stat-item');
  elements.forEach(element => {
    if (!element.classList.contains('animated')) {
      element.style.opacity = '0';
      element.style.transform = 'translateY(20px)';
      element.style.transition = 'opacity 0.5s ease, transform 0.5s ease';
    }
  });

  // Run on load
  animateOnScroll();

  // Run on scroll
  window.addEventListener('scroll', animateOnScroll);

  // Animated counter function
  function animateCounter(element, target, duration = 2000) {
    let start = 0;
    const increment = target > 1000 ? 1000 : 1;
    const stepTime = Math.abs(Math.floor(duration / (target / increment)));

    const timer = setInterval(() => {
      start += increment;
      element.textContent = start > target ? target : start.toLocaleString() + '+';

      if (start >= target) {
        clearInterval(timer);
      }
    }, stepTime);
  }

  // Initialize counters once in viewport

```

```

const statsSection = document.querySelector('.stats-section');
let countersInitialized = false;

function checkStatsVisible() {
  if (!countersInitialized) {
    const position = statsSection.getBoundingClientRect();

    if (position.top < window.innerHeight && position.bottom >= 0) {
      countersInitialized = true;

      animateCounter(document.getElementById('stats-links'), 10000000);
      animateCounter(document.getElementById('stats-users'), 500000);
      animateCounter(document.getElementById('stats-clicks'), 50000000);
    }
  }
}

window.addEventListener('scroll', checkStatsVisible);
checkStatsVisible(); // Check on load
});

// Copy to clipboard function
function copyToClipboard() {
  const shortenedUrl = document.getElementById('shortened-url');
  shortenedUrl.select();
  document.execCommand('copy');

  // Change button text temporarily
  const copyButton = shortenedUrl.nextElementSibling;
  const originalHTML = copyButton.innerHTML;

  copyButton.innerHTML = '<i class="fas fa-check"></i> Copied!';
  copyButton.style.backgroundColor = '#27ae60';

  setTimeout(() => {
    copyButton.innerHTML = originalHTML;
    copyButton.style.backgroundColor = '';
  }, 2000);
}
</script>
</body>
</html>

```

style.css

```

/* General */
body {
  font-family: Arial, sans-serif;
  margin: 0;
  padding: 2rem;
  background-color: #f8f9fa;
  color: #333;
}

```

```
h1, h2 {
  color: #2c3e50;
}

a {
  color: #007bff;
  text-decoration: none;
}

a:hover {
  text-decoration: underline;
}

button {
  padding: 0.5rem 1rem;
  background-color: #28a745;
  border: none;
  color: white;
  cursor: pointer;
  border-radius: 4px;
  transition: background-color 0.3s ease;
}

button:hover {
  background-color: #218838;
}

/* Navbar */
.navbar {
  background-color: #2c3e50;
  padding: 1rem;
}

.navbar-brand {
  color: white;
  font-weight: bold;
}

.navbar-nav .nav-link {
  color: white;
  padding: 0.5rem 1rem;
  font-weight: bold;
}

.navbar-nav .nav-link:hover {
  background-color: #007bff;
  color: white;
}

/* Forms */
form {
  background: #ffffff;
```

```
padding: 1.5rem;
border-radius: 8px;
max-width: 500px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
margin: 0 auto;
}
```

```
label {
  display: block;
  margin-top: 1rem;
  font-weight: bold;
}
```

```
input[type="url"],
input[type="text"],
input[type="email"],
input[type="password"] {
  width: 100%;
  padding: 0.5rem;
  margin-top: 0.3rem;
  border: 1px solid #ccc;
  border-radius: 4px;
  transition: border-color 0.3s ease;
}
```

```
input[type="url"]:focus,
input[type="text"]:focus,
input[type="email"]:focus,
input[type="password"]:focus {
  border-color: #28a745;
}
```

```
form button {
  width: 100%;
  font-size: 1.1rem;
  padding: 1rem;
}
```

```
/* Steps Section */
.row {
  margin-top: 3rem;
}
```

```
.row .col-md-4 {
  background-color: #ffffff;
  padding: 1.5rem;
  border-radius: 8px;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
  margin-bottom: 1.5rem;
}
```

```
.row .col-md-4 h3 {
  color: #2c3e50;
}
```

```
    font-weight: bold;
}

/* Alerts */
.alert {
    margin-top: 2rem;
    font-size: 1.1rem;
}

/* Footer */
footer {
    background-color: #343a40;
    color: white;
    font-size: 0.9rem;
    padding: 1rem;
    text-align: center;
}

/* Table */
table {
    width: 100%;
    border-collapse: collapse;
    margin-top: 2rem;
    background: #fff;
}

table th,
table td {
    border: 1px solid #ddd;
    padding: 0.75rem;
    text-align: left;
}

table th {
    background-color: #343a40;
    color: white;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

/* Responsive Design */
@media screen and (max-width: 768px) {
    .container {
        padding: 1rem;
    }

    .navbar .navbar-nav {
        text-align: center;
    }

    .row {
```

```

        display: block;
    }

    .row .col-md-4 {
        margin-bottom: 1rem;
    }
}

```

script.js

```

document.addEventListener('DOMContentLoaded', () => {
    const chartElement = document.getElementById('clickChart');
    if (chartElement) {
        fetch('../dashboard/chart-data.php')
            .then(response => response.json())
            .then(data => {
                const ctx = chartElement.getContext('2d');
                new Chart(ctx, {
                    type: 'bar',
                    data: {
                        labels: data.labels,
                        datasets: [{
                            label: 'Clicks per Link',
                            data: data.clicks,
                            backgroundColor: 'rgba(54, 162, 235, 0.6)',
                            borderColor: 'rgba(54, 162, 235, 1)',
                            borderWidth: 1
                        }]
                    },
                    options: {
                        responsive: true,
                        scales: {
                            y: {
                                beginAtZero: true,
                                ticks: {
                                    stepSize: 1
                                }
                            }
                        }
                    }
                });
            });
    }
});

```

login.php

```

<?php
session_start();

// Redirect logged-in users to the homepage
if (isset($_SESSION['user_id'])) {
    header("Location: ../index.php");
    exit();
}

```

```

// Handle login form submission
if ($_SERVER['REQUEST_METHOD'] == 'POST') {
    // Include database connection
    include('../config/db.php'); // Ensure the correct path to your db.php

    // Sanitize user input to prevent XSS
    $email = filter_var($_POST['email'], FILTER_SANITIZE_EMAIL);
    $password = $_POST['password'];

    // Prepare SQL query
    $query = "SELECT * FROM users WHERE email = ?";
    $stmt = $pdo->prepare($query);
    $stmt->bindParam(1, $email, PDO::PARAM_STR);
    $stmt->execute();

    // Check if user exists
    if ($stmt->rowCount() > 0) {
        $user = $stmt->fetch(PDO::FETCH_ASSOC);

        // Verify the password
        if (password_verify($password, $user['password'])) {
            // Start the session and store user information
            $_SESSION['user_id'] = $user['id'];
            $_SESSION['username'] = $user['username'];

            // Redirect to the homepage
            header("Location: ../index.php");
            exit();
        } else {
            $error = "Invalid password!";
        }
    } else {
        $error = "No user found with this email!";
    }
}

?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Login | URL Shortener</title>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@6.2.0/css/all.min.css">
    <link rel="stylesheet" href="../assets/css/auth-styles.css">
    <style>
        :root {
            --primary-color: #3498db;
            --secondary-color: #2980b9;
            --accent-color: #1abc9c;
            --dark-color: #2c3e50;

```



```
--light-color: #ecf0f1;
--danger-color: #e74c3c;
--success-color: #2ecc71;
}

* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

body {
  background: linear-gradient(135deg, #3498db, #8e44ad);
  height: 100vh;
  display: flex;
  justify-content: center;
  align-items: center;
  overflow: hidden;
}

.background-shapes {
  position: fixed;
  top: 0;
  left: 0;
  width: 100%;
  height: 100%;
  z-index: -1;
  opacity: 0.4;
}

.background-shapes div {
  position: absolute;
  background: rgba(255, 255, 255, 0.1);
  border-radius: 50%;
  animation: float 10s infinite ease-in-out;
}

.background-shapes div:nth-child(1) {
  width: 80px;
  height: 80px;
  top: 10%;
  left: 10%;
  animation-delay: 0s;
}

.background-shapes div:nth-child(2) {
  width: 120px;
  height: 120px;
  top: 70%;
  left: 80%;
  animation-delay: 1s;
}
```

```
.background-shapes div:nth-child(3) {
  width: 50px;
  height: 50px;
  top: 30%;
  left: 90%;
  animation-delay: 2s;
}

.background-shapes div:nth-child(4) {
  width: 100px;
  height: 100px;
  top: 80%;
  left: 20%;
  animation-delay: 3s;
}

.background-shapes div:nth-child(5) {
  width: 70px;
  height: 70px;
  top: 40%;
  left: 40%;
  animation-delay: 4s;
}

@keyframes float {
  0%, 100% {
    transform: translateY(0) rotate(0deg);
  }
  50% {
    transform: translateY(-20px) rotate(10deg);
  }
}

.container {
  background-color: rgba(255, 255, 255, 0.9);
  width: 400px;
  border-radius: 12px;
  box-shadow: 0 15px 35px rgba(0, 0, 0, 0.2);
  padding: 40px;
  text-align: center;
  backdrop-filter: blur(10px);
  transform: translateY(20px);
  animation: fadeIn 0.8s forwards;
}

@keyframes fadeIn {
  from {
    opacity: 0;
    transform: translateY(40px);
  }
  to {
    opacity: 1;
  }
}
```

```
        transform: translateY(0);
    }
}

.logo {
    margin-bottom: 20px;
}

.logo i {
    font-size: 3rem;
    color: var(--primary-color);
    animation: pulse 2s infinite;
}

@keyframes pulse {
    0% {
        transform: scale(1);
    }
    50% {
        transform: scale(1.1);
    }
    100% {
        transform: scale(1);
    }
}

h1 {
    color: var(--dark-color);
    margin-bottom: 30px;
    font-weight: 600;
    position: relative;
}

h1::after {
    content: "";
    display: block;
    width: 50px;
    height: 3px;
    background-color: var(--primary-color);
    margin: 10px auto 0;
    border-radius: 2px;
}

.form-group {
    margin-bottom: 20px;
    position: relative;
}

.form-control {
    width: 100%;
    padding: 15px 15px 15px 50px;
    border: 1px solid #ddd;
    border-radius: 30px;
```

```
font-size: 16px;
transition: all 0.3s ease;
outline: none;
}

.form-control:focus {
border-color: var(--primary-color);
box-shadow: 0 0 3px rgba(52, 152, 219, 0.2);
}

.form-group i {
position: absolute;
left: 20px;
top: 16px;
color: #aaa;
transition: all 0.3s ease;
}

.form-control:focus + i {
color: var(--primary-color);
}

.btn {
background: linear-gradient(to right, var(--primary-color), var(--secondary-color));
color: white;
border: none;
width: 100%;
padding: 15px;
border-radius: 30px;
font-size: 16px;
font-weight: 600;
cursor: pointer;
transition: all 0.3s ease;
margin-top: 10px;
box-shadow: 0 4px 10px rgba(52, 152, 219, 0.3);
}

.btn:hover {
transform: translateY(-3px);
box-shadow: 0 6px 15px rgba(52, 152, 219, 0.4);
}

.btn:active {
transform: translateY(0);
}

.error-message {
background-color: rgba(231, 76, 60, 0.1);
color: var(--danger-color);
padding: 10px;
border-radius: 5px;
margin: 20px 0;
font-size: 14px;
```

```
    animation: shake 0.5s;
  }

  @keyframes shake {
    0%, 100% { transform: translateX(0); }
    10%, 30%, 50%, 70%, 90% { transform: translateX(-5px); }
    20%, 40%, 60%, 80% { transform: translateX(5px); }
  }

  p {
    margin-top: 25px;
    color: #777;
    font-size: 14px;
  }

  a {
    color: var(--primary-color);
    text-decoration: none;
    font-weight: 600;
    transition: all 0.3s ease;
  }

  a:hover {
    color: var(--secondary-color);
    text-decoration: underline;
  }

  .social-login {
    margin-top: 25px;
    display: flex;
    justify-content: center;
    gap: 15px;
  }

  .social-btn {
    display: flex;
    align-items: center;
    justify-content: center;
    width: 40px;
    height: 40px;
    border-radius: 50%;
    background-color: #f8f9fa;
    border: 1px solid #ddd;
    transition: all 0.3s ease;
  }

  .social-btn:hover {
    transform: translateY(-3px);
    box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
  }

  .social-btn i {
    font-size: 18px;
  }
```

```

    }

    .social-btn.google i {
        color: #DB4437;
    }

    .social-btn.facebook i {
        color: #4267B2;
    }

    .social-btn.twitter i {
        color: #1DA1F2;
    }
</style>
</head>
<body>
    <div class="background-shapes">
        <div></div>
        <div></div>
        <div></div>
        <div></div>
        <div></div>
    </div>

    <div class="container">
        <div class="logo">
            <i class="fas fa-link"></i>
        </div>
        <h1>Welcome Back</h1>

        <!-- Login form -->
        <form action="login.php" method="POST" class="login-form">
            <div class="form-group">
                <input type="email" name="email" required placeholder="Email" class="form-control" value="<?= isset($email) ?
htmlspecialchars($email) : ''; ?>">
                <i class="fas fa-envelope"></i>
            </div>
            <div class="form-group">
                <input type="password" name="password" required placeholder="Password" class="form-control">
                <i class="fas fa-lock"></i>
            </div>
            <button type="submit" class="btn">Sign In</button>
        </form>

        <!-- Display error message if any -->
        <?php if (isset($error)): ?>
            <div class="error-message">
                <i class="fas fa-exclamation-circle"></i> <?= $error; ?>
            </div>
        <?php endif; ?>

        <div class="social-login">
            <a href="#" class="social-btn google"><i class="fab fa-google"></i></a>

```

```

        <a href="#" class="social-btn facebook"><i class="fab fa-facebook-f"></i></a>
        <a href="#" class="social-btn twitter"><i class="fab fa-twitter"></i></a>
    </div>

    <p>Don't have an account? <a href="register.php">Register here</a></p>
</div>

<script>
    // Add animation when form is submitted
    document.querySelector('.login-form').addEventListener('submit', function(e) {
        document.querySelector('.container').style.animation = 'fadeOut 0.5s forwards';
    });

    // Add subtle input animations
    const inputs = document.querySelectorAll('.form-control');
    inputs.forEach(input => {
        input.addEventListener('focus', function() {
            this.parentElement.style.transform = 'translateY(-5px)';
            this.parentElement.style.transition = 'transform 0.3s ease';
        });

        input.addEventListener('blur', function() {
            this.parentElement.style.transform = 'translateY(0)';
        });
    });
</script>
</body>
</html>

```

logout.php

```

<?php
session_start();

// Clear all session variables
$_SESSION = [];

// Destroy the session cookie if it exists
if (ini_get("session.use_cookies")) {
    $params = session_get_cookie_params();
    setcookie(session_name(), "", time() - 42000,
        $params["path"], $params["domain"],
        $params["secure"], $params["httponly"]
    );
}

// Finally destroy the session
session_destroy();

// Redirect to home page
header("Location: ../index.php");
exit();
?>

```

register.php

```
</head>
<body>
  <div class="background-shapes">
    <div></div>
    <div></div>
    <div></div>
    <div></div>
    <div></div>
  </div>

  <div class="container">
    <div class="logo">
      <i class="fas fa-link"></i>
    </div>
    <h1>Create Account</h1>

    <!-- Registration form -->
    <form action="register.php" method="POST" class="register-form">
      <div class="form-group">
        <input type="text" name="username" required placeholder="Username" class="form-control" value="<?=
isset($username) ? htmlspecialchars($username) : ''; ?>">
        <i class="fas fa-user"></i>
      </div>
      <div class="form-group">
        <input type="email" name="email" required placeholder="Email" class="form-control" value="<?= isset($email) ?
htmlspecialchars($email) : ''; ?>">
        <i class="fas fa-envelope"></i>
      </div>
      <div class="form-group">
        <input type="password" name="password" required placeholder="Password" class="form-control">
        <i class="fas fa-lock"></i>
      </div>
      <button type="submit" class="btn">Create Account</button>
    </form>

    <!-- Display error message if any -->
    <?php if (isset($error)): ?>
      <div class="error-message">
        <i class="fas fa-exclamation-circle"></i> <?= $error; ?>
      </div>
    <?php endif; ?>

    <div class="social-login">
      <a href="#" class="social-btn google"><i class="fab fa-google"></i></a>
      <a href="#" class="social-btn facebook"><i class="fab fa-facebook-f"></i></a>
      <a href="#" class="social-btn twitter"><i class="fab fa-twitter"></i></a>
    </div>

    <p>Already have an account? <a href="login.php">Login here</a></p>
  </div>
```



```

<script>
  // Add animation when form is submitted
  document.querySelector('.register-form').addEventListener('submit', function(e) {
    document.querySelector('.container').style.animation = 'fadeOut 0.5s forwards';
  });

  // Add subtle input animations
  const inputs = document.querySelectorAll('.form-control');
  inputs.forEach(input => {
    input.addEventListener('focus', function() {
      this.parentElement.style.transform = 'translateY(-5px)';
      this.parentElement.style.transition = 'transform 0.3s ease';
    });

    input.addEventListener('blur', function() {
      this.parentElement.style.transform = 'translateY(0)';
    });
  });
</script>
</body>
</html><?php
session_start();

if (isset($_SESSION['user_id'])) {
  header("Location: ../index.php");
  exit();
}

include('../config/db.php'); // Include database connection

if ($_SERVER['REQUEST_METHOD'] == 'POST') {
  $username = $_POST['username'];
  $email = $_POST['email'];
  $password = password_hash($_POST['password'], PASSWORD_DEFAULT);

  // Check if the username already exists in the database
  $checkQuery = "SELECT * FROM users WHERE username = :username";
  $stmt = $pdo->prepare($checkQuery);
  $stmt->bindValue(':username', $username, PDO::PARAM_STR);
  $stmt->execute();

  // If username exists, show error
  if ($stmt->rowCount() > 0) {
    $error = "Username already taken, please choose another one.";
  } else {
    // If username is available, insert the user
    $query = "INSERT INTO users (username, email, password) VALUES (:username, :email, :password)";
    $stmt = $pdo->prepare($query);

    $stmt->bindValue(':username', $username, PDO::PARAM_STR);
    $stmt->bindValue(':email', $email, PDO::PARAM_STR);
    $stmt->bindValue(':password', $password, PDO::PARAM_STR);
  }
}

```

```
if ($stmt->execute()) {
    $_SESSION['user_id'] = $pdo->lastInsertId(); // Get the last inserted ID
    $_SESSION['username'] = $username;
    header("Location: ../index.php");
    exit();
} else {
    $error = "Registration failed!";
}
}
}
?>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Register | URL Shortener</title>
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/font-awesome@6.2.0/css/all.min.css">
    <style>
        :root {
            --primary-color: #3498db;
            --secondary-color: #2980b9;
            --accent-color: #1abc9c;
            --dark-color: #2c3e50;
            --light-color: #ecf0f1;
            --danger-color: #e74c3c;
            --success-color: #2ecc71;
        }

        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
        }

        body {
            background: linear-gradient(135deg, #3498db, #8e44ad);
            height: 100vh;
            display: flex;
            justify-content: center;
            align-items: center;
            overflow: hidden;
        }

        .background-shapes {
            position: fixed;
            top: 0;
            left: 0;
            width: 100%;
            height: 100%;
            z-index: -1;
        }
```

```
    opacity: 0.4;
}

.background-shapes div {
    position: absolute;
    background: rgba(255, 255, 255, 0.1);
    border-radius: 50%;
    animation: float 10s infinite ease-in-out;
}

.background-shapes div:nth-child(1) {
    width: 80px;
    height: 80px;
    top: 10%;
    left: 10%;
    animation-delay: 0s;
}

.background-shapes div:nth-child(2) {
    width: 120px;
    height: 120px;
    top: 70%;
    left: 80%;
    animation-delay: 1s;
}

.background-shapes div:nth-child(3) {
    width: 50px;
    height: 50px;
    top: 30%;
    left: 90%;
    animation-delay: 2s;
}

.background-shapes div:nth-child(4) {
    width: 100px;
    height: 100px;
    top: 80%;
    left: 20%;
    animation-delay: 3s;
}

.background-shapes div:nth-child(5) {
    width: 70px;
    height: 70px;
    top: 40%;
    left: 40%;
    animation-delay: 4s;
}

@keyframes float {
    0%, 100% {
        transform: translateY(0) rotate(0deg);
```

```
    }  
    50% {  
      transform: translateY(-20px) rotate(10deg);  
    }  
  }  
}
```

```
.container {  
  background-color: rgba(255, 255, 255, 0.9);  
  width: 450px;  
  border-radius: 12px;  
  box-shadow: 0 15px 35px rgba(0, 0, 0, 0.2);  
  padding: 40px;  
  text-align: center;  
  backdrop-filter: blur(10px);  
  transform: translateY(20px);  
  animation: fadeIn 0.8s forwards;  
}
```

```
@keyframes fadeIn {  
  from {  
    opacity: 0;  
    transform: translateY(40px);  
  }  
  to {  
    opacity: 1;  
    transform: translateY(0);  
  }  
}
```

```
.logo {  
  margin-bottom: 20px;  
}
```

```
.logo i {  
  font-size: 3rem;  
  color: var(--primary-color);  
  animation: pulse 2s infinite;  
}
```

```
@keyframes pulse {  
  0% {  
    transform: scale(1);  
  }  
  50% {  
    transform: scale(1.1);  
  }  
  100% {  
    transform: scale(1);  
  }  
}
```

```
h1 {  
  color: var(--dark-color);  
}
```

```
margin-bottom: 30px;
font-weight: 600;
position: relative;
}

h1::after {
  content: "";
  display: block;
  width: 50px;
  height: 3px;
  background-color: var(--primary-color);
  margin: 10px auto 0;
  border-radius: 2px;
}

.form-group {
  margin-bottom: 20px;
  position: relative;
}

.form-control {
  width: 100%;
  padding: 15px 15px 15px 50px;
  border: 1px solid #ddd;
  border-radius: 30px;
  font-size: 16px;
  transition: all 0.3s ease;
  outline: none;
}

.form-control:focus {
  border-color: var(--primary-color);
  box-shadow: 0 0 3px rgba(52, 152, 219, 0.2);
}

.form-group i {
  position: absolute;
  left: 20px;
  top: 16px;
  color: #aaa;
  transition: all 0.3s ease;
}

.form-control:focus + i {
  color: var(--primary-color);
}

.btn {
  background: linear-gradient(to right, var(--primary-color), var(--secondary-color));
  color: white;
  border: none;
  width: 100%;
  padding: 15px;
```

```
border-radius: 30px;
font-size: 16px;
font-weight: 600;
cursor: pointer;
transition: all 0.3s ease;
margin-top: 10px;
box-shadow: 0 4px 10px rgba(52, 152, 219, 0.3);
}

.btn:hover {
  transform: translateY(-3px);
  box-shadow: 0 6px 15px rgba(52, 152, 219, 0.4);
}

.btn:active {
  transform: translateY(0);
}

.error-message {
  background-color: rgba(231, 76, 60, 0.1);
  color: var(--danger-color);
  padding: 10px;
  border-radius: 5px;
  margin: 20px 0;
  font-size: 14px;
  animation: shake 0.5s;
}

@keyframes shake {
  0%, 100% { transform: translateX(0); }
  10%, 30%, 50%, 70%, 90% { transform: translateX(-5px); }
  20%, 40%, 60%, 80% { transform: translateX(5px); }
}

p {
  margin-top: 25px;
  color: #777;
  font-size: 14px;
}

a {
  color: var(--primary-color);
  text-decoration: none;
  font-weight: 600;
  transition: all 0.3s ease;
}

a:hover {
  color: var(--secondary-color);
  text-decoration: underline;
}

.social-login {
```

```

    margin-top: 25px;
    display: flex;
    justify-content: center;
    gap: 15px;
}

.social-btn {
    display: flex;
    align-items: center;
    justify-content: center;
    width: 40px;
    height: 40px;
    border-radius: 50%;
    background-color: #f8f9fa;
    border: 1px solid #ddd;
    transition: all 0.3s ease;
}

.social-btn:hover {
    transform: translateY(-3px);
    box-shadow: 0 5px 10px rgba(0, 0, 0, 0.1);
}

.social-btn i {
    font-size: 18px;
}

.social-btn.google i {
    color: #DB4437;
}

.social-btn.facebook i {
    color: #4267B2;
}

.social-btn.twitter i {
    color: #1DA1F2;
}
}
</style>

```

db.php

```

<?php
$servername = "localhost"; // or your database server
$username = "root";       // your database username
$password = "";           // your database password
$dbname = "url_shortener"; // your database name

try {
    // Use $servername instead of $host in the PDO connection string
    $pdo = new PDO("mysql:host=$servername;dbname=$dbname;charset=utf8mb4", $username, $password);
    $pdo->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);

} catch (PDOException $e) {

```

```
    die("Database connection failed: " . $e->getMessage());
}
?>
```

functions.php

```
<?php
function generateShortCode($length = 6) {
    return substr(str_shuffle("0123456789abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ"), 0, $length);
}

function sanitizeInput($input) {
    return htmlspecialchars(trim($input), ENT_QUOTES, 'UTF-8');
}
?>
```

session.php

```
<?php
session_start();

function isLoggedIn() {
    return isset($_SESSION['user_id']);
}

function getUserId() {
    return $_SESSION['user_id'] ?? null;
}
?>
```

shorten/index.php

```
<?php
session_start();
$isLoggedIn = isset($_SESSION['user_id']);
?>

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Shorten URL</title>
    <link rel="stylesheet" href="../assets/css/styles.css">
</head>
<body>
    <h1>Shorten Your URL</h1>

    <?php if ($isLoggedIn): ?>
        <p>Welcome, <?= htmlspecialchars($_SESSION['username']); ?>! <a href="../dashboard/index.php">Dashboard</a> |
    <a href="../auth/logout.php">Logout</a></p>
    <?php else: ?>
        <p><a href="../auth/login.php">Login</a> or <a href="../auth/register.php">Register</a> for tracking your links.</p>
    <?php endif; ?>

    <form action="shorten.php" method="post">
        <label for="original_url">Enter URL:</label>
        <input type="url" name="original_url" id="original_url" required>
```



```

        <button type="submit">Shorten</button>
    </form>

    <?php if (isset($_GET['short'])): ?>
    <p>Your shortened URL:
        <a href="https://<?=$_SERVER['HTTP_HOST'] . '/UrlShortenerApp/' . htmlspecialchars($_GET['short']); ?>"
target="_blank">
    https://<?=$_SERVER['HTTP_HOST'] . '/UrlShortenerApp/' . htmlspecialchars($_GET['short']); ?>
</a>

    </p>
<?php endif; ?>

</body>
</html>

```

redirect.php

```

<?php
file_put_contents('debug.log', "Code received: " . $_GET['code'] . "\n", FILE_APPEND);

// Adjust paths based on how the script is accessed
$base_path = dirname(dirname(__FILE__));
require_once $base_path . '/config/db.php';
require_once $base_path . '/includes/functions.php';

// Get short code - try both methods (clean URL or GET parameter)
$code = "";
if (isset($_GET['code'])) {
    // If accessed via redirect.php?code=ABC
    $code = sanitizeInput($_GET['code']);
} else {
    // If accessed via clean URL (domain.com/ABC)
    $uri = $_SERVER['REQUEST_URI'];
    $parts = explode('/', trim($uri, '/'));
    $code = sanitizeInput(end($parts));
}

// If no code found, redirect to home
if (empty($code)) {
    header('Location: ../index.php');
    exit;
}

try {
    // Retrieve original URL for the given short code
    $stmt = $pdo->prepare("SELECT original_url, id FROM links WHERE short_code = ?");
    $stmt->execute([$code]);

    if ($stmt->rowCount() > 0) {
        $link = $stmt->fetch(PDO::FETCH_ASSOC);
        $original_url = $link['original_url'];
        $link_id = $link['id'];
    }
}

```

```

// Update click count in the links table
$update_stmt = $pdo->prepare("UPDATE links SET click_count = click_count + 1 WHERE short_code = ?");
$update_stmt->execute([$code]);

// Insert into clicks table (tracking IP, country, browser)
$ip_address = $_SERVER['REMOTE_ADDR']; // Get the IP address of the visitor
$country = 'India'; // Set a default value or use an API for geolocation
$browser = $_SERVER['HTTP_USER_AGENT']; // Get the user's browser info

$insert_click_stmt = $pdo->prepare("INSERT INTO clicks (link_id, ip_address, country, browser) VALUES (?, ?, ?, ?)");
$insert_click_stmt->execute([$link_id, $ip_address, $country, $browser]);

// Make sure URL has proper protocol
if (!preg_match("~^(?:f|ht)tps?://~i", $original_url)) {
    $original_url = "http://" . $original_url;
}

// Redirect to the original URL
header("Location: $original_url");
exit;
} else {
    echo "<h1>URL Not Found</h1>";
    echo "<p>The shortened URL you requested could not be found.</p>";
    echo "<p><a href='../index.php'>Return to homepage</a></p>";
}
} catch (PDOException $e) {
    echo "<h1>System Error</h1>";
    echo "<p>We're experiencing technical difficulties. Please try again later.</p>";
    error_log("Redirect Error: " . $e->getMessage());
}
?>

```

shorten.php

```

<?php
session_start();
include('../config/db.php');

if ($_SERVER['REQUEST_METHOD'] === 'POST') {
    // Make sure original_url is set
    if (!isset($_POST['original_url'])) {
        die("No URL provided or invalid request.");
    }

    $original_url = trim($_POST['original_url']);

    if (!filter_var($original_url, FILTER_VALIDATE_URL)) {
        die("Invalid URL");
    }

    // Generate unique short code
    $short_code = substr(md5(uniqid(rand(), true)), 0, 6);
}

```

```

// Check for logged-in user
$user_id = isset($_SESSION['user_id']) ? $_SESSION['user_id'] : null;

// Save to database using PDO
$stmt = $pdo->prepare("INSERT INTO links (user_id, original_url, short_code) VALUES (:user_id, :original_url, :short_code)");
$stmt->execute([
    'user_id' => $user_id,
    'original_url' => $original_url,
    'short_code' => $short_code
]);

// Redirect back to index page with short code
header("Location: ../index.php?short=$short_code");
exit();
} else {
    header("Location: ../index.php");
    exit();
}

```

dashboard/index.php

```

<?php
if (isset($_SESSION['user_id'])) {
    $user_id = $_SESSION['user_id'];
} else {
    // Handle the case when not logged in
    // Redirect to login page or treat as guest
    $user_id = null;
}

// Include session management
include('../includes/session.php');

// Redirect if not logged in
if (!isLoggedIn()) {
    header('Location: ../auth/login.php');
    exit();
}

// Include database connection
include('../config/db.php');

// Get user information
$user_id = getUserId();
$stmt = $pdo->prepare("SELECT username FROM users WHERE id = ?");
$stmt->execute([$user_id]);
$user = $stmt->fetch(PDO::FETCH_ASSOC);

// Get user's links with click counts
$stmt = $pdo->prepare("
    SELECT links.*,
        (SELECT COUNT(*) FROM clicks WHERE clicks.link_id = links.id) as click_count
    FROM links

```

```

        WHERE user_id = ?
        ORDER BY created_at DESC
    ");
    $stmt->execute([$userId]);
    $links = $stmt->fetchAll(PDO::FETCH_ASSOC);

    // Calculate total clicks for all links
    $totalClicks = 0;
    foreach ($links as $link) {
        $totalClicks += $link['click_count'];
    }

    // Calculate total links
    $totalLinks = count($links);

    // Get recent clicks (last 10)
    $stmt = $pdo->prepare("
        SELECT c.*, l.short_code, l.original_url
        FROM clicks c
        JOIN links l ON c.link_id = l.id
        WHERE l.user_id = ?
        ORDER BY c.clicked_at DESC
        LIMIT 10
    ");
    $stmt->execute([$userId]);
    $recentClicks = $stmt->fetchAll(PDO::FETCH_ASSOC);

    $stmt = $pdo->prepare("
        SELECT DATE(c.clicked_at) AS click_date, COUNT(*) AS click_count
        FROM clicks c
        JOIN links l ON c.link_id = l.id
        WHERE l.user_id = ?
        GROUP BY DATE(c.clicked_at)
        ORDER BY click_date ASC");
    $stmt->execute([$userId]);
    $clicksOverTime = $stmt->fetchAll(PDO::FETCH_ASSOC);
    $clicksOverTimeJson = json_encode($clicksOverTime);// for chronological order

    // Fetch top links based on click count for Top Links chart
    $stmt = $pdo->prepare("
        SELECT l.short_code, l.original_url, COUNT(c.id) AS click_count
        FROM links l
        LEFT JOIN clicks c ON l.id = c.link_id
        WHERE l.user_id = ?
        GROUP BY l.id
        ORDER BY click_count DESC
        LIMIT 5
    ");
    $stmt->execute([$userId]);
    $topLinks = $stmt->fetchAll(PDO::FETCH_ASSOC);

    // Pass the data to JavaScript

```

```
$topLinksJson = json_encode($topLinks);
?>
<script>
  // Data for Clicks Over Time
  var clicksOverTimeData = <?php echo $clicksOverTimeJson; ?>;

  // Data for Top Links
  var topLinksData = <?php echo $topLinksJson; ?>;
</script>

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Dashboard | URL Shortener</title>
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.2.0/css/all.min.css">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.css">
  <script src="https://cdn.jsdelivr.net/npm/chart.js"></script>

  <style>
    :root {
      --primary-color: #3498db;
      --secondary-color: #2980b9;
      --accent-color: #1abc9c;
      --dark-color: #2c3e50;
      --light-color: #ecf0f1;
      --danger-color: #e74c3c;
      --success-color: #2ecc71;
      --warning-color: #f39c12;
      --info-color: #3498db;
    }

    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
    }

    body {
      background-color: #f5f7fa;
      color: #333;
      line-height: 1.6;
    }

    .container {
      width: 100%;
      max-width: 1200px;
      margin: 0 auto;
      padding: 0 15px;
    }
  </style>
</head>
<body>
```

```
.navbar {
  background: linear-gradient(135deg, var(--primary-color), var(--secondary-color));
  color: white;
  padding: 1rem 0;
  box-shadow: 0 2px 10px rgba(0, 0, 0, 0.1);
}

.navbar .container {
  display: flex;
  justify-content: space-between;
  align-items: center;
}

.logo {
  display: flex;
  align-items: center;
  font-size: 1.5rem;
  font-weight: 700;
}

.logo i {
  margin-right: 10px;
}

.nav-links {
  display: flex;
  list-style: none;
}

.nav-links li {
  margin-left: 20px;
}

.nav-links a {
  color: white;
  text-decoration: none;
  padding: 5px 10px;
  border-radius: 5px;
  transition: background-color 0.3s;
}

.nav-links a:hover {
  background-color: rgba(255, 255, 255, 0.2);
}

.dashboard {
  padding: 2rem 0;
}

.dashboard-header {
  margin-bottom: 2rem;
}
```

```
.dashboard-header h1 {
  color: var(--dark-color);
  margin-bottom: 0.5rem;
}

.stats-grid {
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(250px, 1fr));
  gap: 20px;
  margin-bottom: 2rem;
}

.stat-card {
  background-color: white;
  border-radius: 8px;
  padding: 1.5rem;
  box-shadow: 0 4px 6px rgba(0, 0, 0, 0.05);
  text-align: center;
  transition: transform 0.3s, box-shadow 0.3s;
}

.stat-card:hover {
  transform: translateY(-5px);
  box-shadow: 0 8px 15px rgba(0, 0, 0, 0.1);
}

.stat-card i {
  font-size: 2.5rem;
  margin-bottom: 1rem;
  color: var(--primary-color);
}

.stat-card h3 {
  font-size: 1.8rem;
  margin-bottom: 0.5rem;
  color: var(--dark-color);
}

.stat-card p {
  color: #777;
  font-size: 0.9rem;
}

.chart-container {
  background-color: white;
  border-radius: 8px;
  padding: 1.5rem;
  box-shadow: 0 4px 6px rgba(0, 0, 0, 0.05);
  margin-bottom: 2rem;
}

.chart-header {
```

```
    display: flex;
    justify-content: space-between;
    align-items: center;
    margin-bottom: 1rem;
}

.chart-title {
    color: var(--dark-color);
    font-size: 1.2rem;
    font-weight: 600;
}

.chart-period {
    display: flex;
    align-items: center;
}

.chart-period button {
    background: none;
    border: none;
    color: #777;
    cursor: pointer;
    font-size: 0.9rem;
    padding: 5px 10px;
    border-radius: 4px;
    transition: background-color 0.3s, color 0.3s;
}

.chart-period button.active {
    background-color: var(--primary-color);
    color: white;
}

.chart-period button:hover:not(.active) {
    background-color: #f1f1f1;
}

.charts-row {
    display: grid;
    grid-template-columns: repeat(auto-fit, minmax(500px, 1fr));
    gap: 20px;
    margin-bottom: 2rem;
}

.table-container {
    background-color: white;
    border-radius: 8px;
    padding: 1.5rem;
    box-shadow: 0 4px 6px rgba(0, 0, 0, 0.05);
    margin-bottom: 2rem;
    overflow-x: auto;
}
```



```
.table-header {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
  margin-bottom: 1rem;  
}
```

```
.table-title {  
  color: var(--dark-color);  
  font-size: 1.2rem;  
  font-weight: 600;  
}
```

```
.search-box {  
  display: flex;  
  align-items: center;  
  background-color: #f1f1f1;  
  border-radius: 20px;  
  padding: 5px 15px;  
}
```

```
.search-box input {  
  border: none;  
  background: none;  
  outline: none;  
  padding: 5px;  
  width: 200px;  
}
```

```
.search-box i {  
  color: #777;  
}
```

```
table {  
  width: 100%;  
  border-collapse: collapse;  
}
```

```
th, td {  
  padding: 12px 15px;  
  text-align: left;  
  border-bottom: 1px solid #eee;  
}
```

```
th {  
  background-color: #f9f9f9;  
  font-weight: 600;  
  color: #555;  
}
```

```
tr:hover {  
  background-color: #f5f5f5;  
}
```

```
.links-table .original-url {  
  max-width: 300px;  
  overflow: hidden;  
  text-overflow: ellipsis;  
  white-space: nowrap;  
}
```

```
.links-table .short-url {  
  color: var(--primary-color);  
  font-weight: 500;  
}
```

```
.links-table .actions {  
  display: flex;  
  gap: 10px;  
}
```

```
.links-table .actions a {  
  color: #777;  
  font-size: 1.1rem;  
  transition: color 0.3s;  
}
```

```
.links-table .actions a:hover {  
  color: var(--primary-color);  
}
```

```
.links-table .actions a.delete {  
  color: var(--danger-color);  
}
```

```
.pagination {  
  display: flex;  
  justify-content: center;  
  list-style: none;  
  margin-top: 1rem;  
}
```

```
.pagination li {  
  margin: 0 5px;  
}
```

```
.pagination a {  
  display: flex;  
  align-items: center;  
  justify-content: center;  
  width: 35px;  
  height: 35px;  
  background-color: white;  
  border-radius: 50%;  
  color: #555;  
  text-decoration: none;
```

```
    transition: background-color 0.3s, color 0.3s;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.1);
}

.pagination a:hover, .pagination a.active {
    background-color: var(--primary-color);
    color: white;
}

.btn {
    display: inline-block;
    background-color: var(--primary-color);
    color: white;
    border: none;
    padding: 8px 16px;
    border-radius: 4px;
    cursor: pointer;
    font-size: 0.9rem;
    font-weight: 500;
    text-decoration: none;
    transition: background-color 0.3s, transform 0.3s;
}

.btn:hover {
    background-color: var(--secondary-color);
    transform: translateY(-2px);
}

.btn-outline {
    background-color: transparent;
    border: 1px solid var(--primary-color);
    color: var(--primary-color);
}

.btn-outline:hover {
    background-color: var(--primary-color);
    color: white;
}

.btn-danger {
    background-color: var(--danger-color);
}

.btn-danger:hover {
    background-color: #c0392b;
}

.empty-state {
    text-align: center;
    padding: 3rem 0;
}

.empty-state i {
```

```
    font-size: 5rem;
    color: #ddd;
    margin-bottom: 1rem;
}

.empty-state h3 {
    font-size: 1.5rem;
    color: #777;
    margin-bottom: 1rem;
}

.empty-state p {
    color: #999;
    margin-bottom: 1.5rem;
}

.tooltip {
    position: relative;
    display: inline-block;
}

.tooltip .tooltiptext {
    visibility: hidden;
    width: 200px;
    background-color: #333;
    color: #fff;
    text-align: center;
    border-radius: 6px;
    padding: 5px;
    position: absolute;
    z-index: 1;
    bottom: 125%;
    left: 50%;
    transform: translateX(-50%);
    opacity: 0;
    transition: opacity 0.3s;
}

.tooltip:hover .tooltiptext {
    visibility: visible;
    opacity: 1;
}

@media (max-width: 768px) {
    .charts-row {
        grid-template-columns: 1fr;
    }

    .table-header {
        flex-direction: column;
        align-items: flex-start;
    }
}
```

```

        .search-box {
            margin-top: 10px;
            width: 100%;
        }

        .search-box input {
            width: 100%;
        }
    }
</style>
</head>
<body>
    <nav class="navbar">
        <div class="container">
            <div class="logo">
                <i class="fas fa-link"></i>
                <span>URL Shortener</span>
            </div>
            <ul class="nav-links">
                <li><a href=" ../index.php"><i class="fas fa-home"></i> Home</a></li>
                <li><a href="index.php"><i class="fas fa-chart-bar"></i> Dashboard</a></li>
                <li><a href=" ../auth/logout.php"><i class="fas fa-sign-out-alt"></i> Logout</a></li>
            </ul>
        </div>
    </nav>

    <div class="dashboard">
        <div class="container">
            <div class="dashboard-header">
                <h1>Welcome, <?= htmlspecialchars($user['username']) ?></h1>
                <p>Here's an overview of your shortened links and their performance.</p>
            </div>

            <div class="stats-grid">
                <div class="stat-card">
                    <i class="fas fa-link"></i>
                    <h3><?= $totalLinks ?></h3>
                    <p>Total Links</p>
                </div>
                <div class="stat-card">
                    <i class="fas fa-mouse-pointer"></i>
                    <h3><?= $totalClicks ?></h3>
                    <p>Total Clicks</p>
                </div>
                <div class="stat-card">
                    <i class="fas fa-chart-line"></i>
                    <h3><?= $totalLinks > 0 ? round($totalClicks / $totalLinks, 1) : 0 ?></h3>
                    <p>Average Clicks per Link</p>
                </div>
            </div>

            <div class="charts-row">
                <div class="chart-container">

```

```

<div class="chart-header">
  <div class="chart-title">Clicks over time</div>
  <div class="chart-period">
    <button class="active" data-period="week">Week</button>
    <button data-period="month">Month</button>
    <button data-period="year">Year</button>
  </div>
</div>
<canvas id="clicksChart"></canvas>
</div>
<div class="chart-container">
  <div class="chart-header">
    <div class="chart-title">Top Links</div>
  </div>
  <canvas id="topLinksChart"></canvas>
</div>
</div>

```

```

<div class="table-container">
  <div class="table-header">
    <div class="table-title">Your Links</div>
    <div class="search-box">
      <i class="fas fa-search"></i>
      <input type="text" id="linkSearch" placeholder="Search links...">
    </div>
  </div>
</div>

```

```

<?php if (count($links) > 0): ?>
<div class="links-table">
  <table>
    <thead>
      <tr>
        <th>Short URL</th>
        <th>Original URL</th>
        <th>Created</th>
        <th>Clicks</th>
        <th>Actions</th>
      </tr>
    </thead>
    <tbody>
      <?php foreach ($links as $link): ?>
      <tr>
        <td class="short-url">
          <a href="../../shorten/redirect.php?code=<?=$link['short_code'] ?>" target="_blank">
            <?=$_SERVER['HTTP_HOST'] ?>/<?=$link['short_code'] ?>
          </a>
        </td>
        <td class="original-url">
          <div class="tooltip">
            <?=$htmlspecialchars(substr($link['original_url'], 0, 50)) ?>
            <?=$strlen($link['original_url']) > 50 ? '...' : '' ?>
            <span class="tooltiptext"><?=$htmlspecialchars($link['original_url']) ?></span>
          </div>
        </td>
      </tr>
    </tbody>
  </table>
</div>

```

```

        </td>
        <td><?= date('M j, Y', strtotime($link['created_at'])) ?></td>
        <td><?= $link['click_count'] ?></td>
        <td class="actions">
            <a href="analytics.php?link_id=<?= $link['id'] ?>" title="Analytics"><i class="fas fa-chart-bar"></i></a>
            <a href="#" class="copy-link" data-url="<?= $_SERVER['HTTP_HOST'] ?></?> $link['short_code'] ?>"
title="Copy"><i class="fas fa-copy"></i></a>
            <a href="delete.php?id=<?= $link['id'] ?>" class="delete" title="Delete" onclick="return confirm('Are you sure
you want to delete this link?')"><i class="fas fa-trash-alt"></i></a>
        </td>
    </tr>
    <?php endforeach; ?>
</tbody>
</table>
</div>
<?php else: ?>
<div class="empty-state">
    <i class="fas fa-link-slash"></i>
    <h3>No links found</h3>
    <p>You haven't created any shortened links yet.</p>
    <a href=" ../index.php" class="btn">Create your first link</a>
</div>
<?php endif; ?>

</div>

<?php if (count($recentClicks) > 0): ?>
<div class="table-container">
    <div class="table-header">
        <div class="table-title">Recent Clicks</div>
    </div>
    <table>
        <thead>
            <tr>
                <th>Short URL</th>
                <th>Location</th>
                <th>Browser</th>
                <th>Clicked at</th>
            </tr>
        </thead>
        <tbody>
            <?php foreach ($recentClicks as $click): ?>
                <tr>
                    <td class="short-url"><?= $click['short_code'] ?></td>
                    <td><?= $click['country'] ? $click['country'] : 'India' ?></td>
                    <td><?= $click['browser'] ? $click['browser'] : 'Unknown' ?></td>
                    <td><?= date('M j, Y H:i', strtotime($click['clicked_at'])) ?></td>
                </tr>
            <?php endforeach; ?>
        </tbody>
    </table>
</div>
<?php endif; ?>

```

```

    </div>
</div>

<script src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.js"></script>
<script>
document.addEventListener('DOMContentLoaded', function () {
    // Fetch Clicks Over Time Data
    fetch('get_clicks_data.php')
        .then(response => response.json())
        .then(data => {
            const labels = data.map(row => row.click_date).reverse();
            const counts = data.map(row => row.click_count).reverse();

            const clicksCtx = document.getElementById('clicksChart').getContext('2d');
            const clicksChart = new Chart(clicksCtx, {
                type: 'line',
                data: {
                    labels: labels,
                    datasets: [{
                        label: 'Clicks',
                        data: counts,
                        backgroundColor: 'rgba(52, 152, 219, 0.2)',
                        borderColor: 'rgba(52, 152, 219, 1)',
                        borderWidth: 2,
                        pointBackgroundColor: 'rgba(52, 152, 219, 1)',
                        pointBorderColor: '#fff',
                        pointHoverBackgroundColor: '#fff',
                        pointHoverBorderColor: 'rgba(52, 152, 219, 1)',
                        tension: 0.4
                    }]
                },
                options: {
                    responsive: true,
                    maintainAspectRatio: false,
                    scales: {
                        yAxes: [{
                            ticks: {
                                beginAtZero: true,
                                precision: 0
                            }
                        }]
                    }
                }
            });

            // Chart period buttons (static adjustment)
            document.querySelectorAll('.chart-period button').forEach(button => {
                button.addEventListener('click', function () {
                    document.querySelector('.chart-period button.active').classList.remove('active');
                    this.classList.add('active');
                    // You can add filtering here later based on period (week/month/year)
                });
            });
});

```



```

});

// Fetch Top 5 Links Data
fetch('get_top_links.php')
  .then(response => response.json())
  .then(data => {
    const labels = data.map(row => row.short_code);
    const counts = data.map(row => row.click_count);

    const topLinksCtx = document.getElementById('topLinksChart').getContext('2d');
    const topLinksChart = new Chart(topLinksCtx, {
      type: 'bar',
      data: {
        labels: labels,
        datasets: [{
          label: 'Clicks',
          data: counts,
          backgroundColor: [
            'rgba(52, 152, 219, 0.7)',
            'rgba(26, 188, 156, 0.7)',
            'rgba(155, 89, 182, 0.7)',
            'rgba(241, 196, 15, 0.7)',
            'rgba(231, 76, 60, 0.7)'
          ],
          borderColor: [
            'rgba(52, 152, 219, 1)',
            'rgba(26, 188, 156, 1)',
            'rgba(155, 89, 182, 1)',
            'rgba(241, 196, 15, 1)',
            'rgba(231, 76, 60, 1)'
          ],
          borderWidth: 1
        }]
      },
      options: {
        responsive: true,
        maintainAspectRatio: false,
        scales: {
          yAxes: [{
            ticks: {
              beginAtZero: true,
              precision: 0
            }
          }]
        }
      }
    });
  });

// Link search functionality
document.getElementById('linkSearch').addEventListener('input', function(e) {
  const searchTerm = e.target.value.toLowerCase();
  const rows = document.querySelectorAll('.links-table tbody tr');

```

```

rows.forEach(row => {
  const originalUrl = row.querySelector('.original-url').textContent.toLowerCase();
  const shortUrl = row.querySelector('.short-url').textContent.toLowerCase();

  if (originalUrl.includes(searchTerm) || shortUrl.includes(searchTerm)) {
    row.style.display = '';
  } else {
    row.style.display = 'none';
  }
});
});

```

```

// Copy link functionality
document.querySelectorAll('.copy-link').forEach(link => {
  link.addEventListener('click', function(e) {
    e.preventDefault();
    const url = this.getAttribute('data-url');
    navigator.clipboard.writeText(url).then(() => {
      alert('Link copied to clipboard!');
    });
  });
});
</script>

```

```

<script>
  // Fetch data from PHP
  var clicksOverTimeData = <?php echo $clicksOverTimeJson; ?>;
  var topLinksData = <?php echo $topLinksJson; ?>;

  // 1. Collect all unique dates and organize data by short_code
  var allDatesSet = new Set();
  var dataByShortCode = {};

  clicksOverTimeData.forEach(function(item) {
    var date = item.click_date;
    var code = item.short_code;
    var count = parseInt(item.click_count);

    allDatesSet.add(date);

    if (!dataByShortCode[code]) {
      dataByShortCode[code] = {};
    }

    dataByShortCode[code][date] = count;
  });

  var allDates = Array.from(allDatesSet).sort();

  // 2. Create datasets for each short_code
  var datasets = [];

```

```
Object.keys(dataByShortCode).forEach(function(code) {
  var dataPoints = allDates.map(function(date) {
    return dataByShortCode[code][date] || 0; // 0 if no data for that date
  });
```

```
  datasets.push({
    label: code,
    data: dataPoints,
    borderWidth: 2,
    fill: false,
    borderColor: getRandomColor(),
    tension: 0.3
  });
});
```

```
// 3. Render Clicks Over Time Chart
```

```
var ctx1 = document.getElementById('clicksChart').getContext('2d');
```

```
var clicksChart = new Chart(ctx1, {
  type: 'line',
  data: {
    labels: allDates,
    datasets: datasets
  },
  options: {
    responsive: true,
    plugins: {
      title: {
        display: true,
        text: 'Clicks Over Time (by Short Link)'
      }
    },
    scales: {
      y: {
        beginAtZero: true,
        title: {
          display: true,
          text: 'Number of Clicks'
        }
      },
      x: {
        title: {
          display: true,
          text: 'Date'
        }
      }
    }
  }
});
```

```
// Random color generator for each line
```

```
function getRandomColor() {
  const r = Math.floor(Math.random() * 200);
```

```

    const g = Math.floor(Math.random() * 200);
    const b = Math.floor(Math.random() * 200);
    return `rgba(${r}, ${g}, ${b}, 1)`;
}

// 4. Top Links Chart (no change needed)
var topLinksLabels = [];
var topLinksDataValues = [];
topLinksData.forEach(function(item) {
    topLinksLabels.push(item.short_code);
    topLinksDataValues.push(item.click_count);
});

var ctx2 = document.getElementById('topLinksChart').getContext('2d');
var topLinksChart = new Chart(ctx2, {
    type: 'bar',
    data: {
        labels: topLinksLabels,
        datasets: [{
            label: 'Click Count',
            data: topLinksDataValues,
            backgroundColor: 'rgba(255, 99, 132, 0.2)',
            borderColor: 'rgba(255, 99, 132, 1)',
            borderWidth: 1
        }]
    },
    options: {
        responsive: true,
        scales: {
            y: {
                beginAtZero: true
            }
        }
    }
});
</script>
</body>
</html>

```

get_top_links.php

```

<?php
require_once '../config.php';
session_start();

if (!isset($_SESSION['user_id'])) {
    http_response_code(401);
    echo json_encode(['error' => 'Unauthorized']);
    exit;
}

$user_id = $_SESSION['user_id'];

```

```

try {
    $stmt = $pdo->prepare("
        SELECT short_code, click_count
        FROM links
        WHERE user_id = :user_id
        ORDER BY click_count DESC
        LIMIT 5
    ");
    $stmt->execute(['user_id' => $user_id]);
    $data = $stmt->fetchAll(PDO::FETCH_ASSOC);

    echo json_encode($data);
} catch (PDOException $e) {
    http_response_code(500);
    echo json_encode(['error' => 'Database error: ' . $e->getMessage()]);
}
?>

```

get_clicks_data.php

```

<?php
require_once '../config.php';
session_start();

if (!isset($_SESSION['user_id'])) {
    http_response_code(401);
    echo json_encode(['error' => 'Unauthorized']);
    exit;
}

$user_id = $_SESSION['user_id'];

try {
    $stmt = $pdo->prepare("
        SELECT DATE(c.clicked_at) AS click_date, COUNT(*) AS click_count
        FROM clicks c
        JOIN links l ON c.link_id = l.id
        WHERE l.user_id = :user_id
        GROUP BY DATE(c.clicked_at)
        ORDER BY click_date DESC
        LIMIT 7
    ");
    $stmt->execute(['user_id' => $user_id]);
    $data = $stmt->fetchAll(PDO::FETCH_ASSOC);

    echo json_encode($data);
} catch (PDOException $e) {
    http_response_code(500);
    echo json_encode(['error' => 'Database error: ' . $e->getMessage()]);
}
?>

```

analytics.php

```

<?php

```

```

session_start();
include('../config/db.php');

// Check if the user is logged in
if (!isset($_SESSION['user_id'])) {
    header("Location: ../auth/login.php");
    exit();
}

if (isset($_GET['id'])) {
    $link_id = $_GET['id'];
    $user_id = $_SESSION['user_id'];

    // Ensure the link belongs to the logged-in user
    $query = "SELECT * FROM links WHERE id = ? AND user_id = ?";
    $stmt = $pdo->prepare($query);
    $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameters using bindValue
    $stmt->bindValue(2, $user_id, PDO::PARAM_INT); // Bind parameters using bindValue
    $stmt->execute();

    if ($stmt->rowCount() > 0) {
        // Delete the link and its associated clicks
        $delete_link_query = "DELETE FROM links WHERE id = ?";
        $delete_clicks_query = "DELETE FROM clicks WHERE link_id = ?";

        try {
            $pdo->beginTransaction(); // Start transaction

            // Delete the clicks first
            $stmt = $pdo->prepare($delete_clicks_query);
            $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameter
            $stmt->execute();

            // Delete the link
            $stmt = $pdo->prepare($delete_link_query);
            $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameter
            $stmt->execute();

            $pdo->commit(); // Commit transaction
            header("Location: index.php"); // Redirect back to dashboard
            exit();
        } catch (Exception $e) {
            $pdo->rollBack(); // Rollback in case of an error
            echo "Error: " . $e->getMessage();
        }
    } else {
        echo "Unauthorized access!";
    }
} else {
    echo "No link ID provided!";
}
?>

```

delete.php

```
<?php
session_start();
include('../config/db.php');

// Check if the user is logged in
if (!isset($_SESSION['user_id'])) {
    header("Location: ../auth/login.php");
    exit();
}

if (isset($_GET['id'])) {
    $link_id = $_GET['id'];
    $user_id = $_SESSION['user_id'];

    // Ensure the link belongs to the logged-in user
    $query = "SELECT * FROM links WHERE id = ? AND user_id = ?";
    $stmt = $pdo->prepare($query);
    $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameters using bindValue
    $stmt->bindValue(2, $user_id, PDO::PARAM_INT); // Bind parameters using bindValue
    $stmt->execute();

    if ($stmt->rowCount() > 0) {
        // Delete the link and its associated clicks
        $delete_link_query = "DELETE FROM links WHERE id = ?";
        $delete_clicks_query = "DELETE FROM clicks WHERE link_id = ?";

        try {
            $pdo->beginTransaction(); // Start transaction

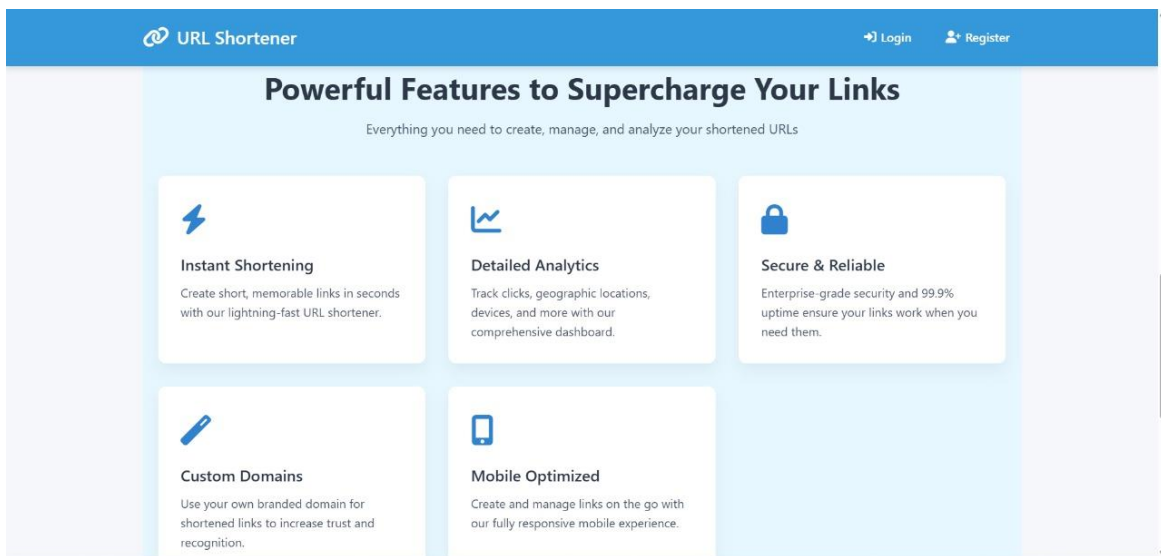
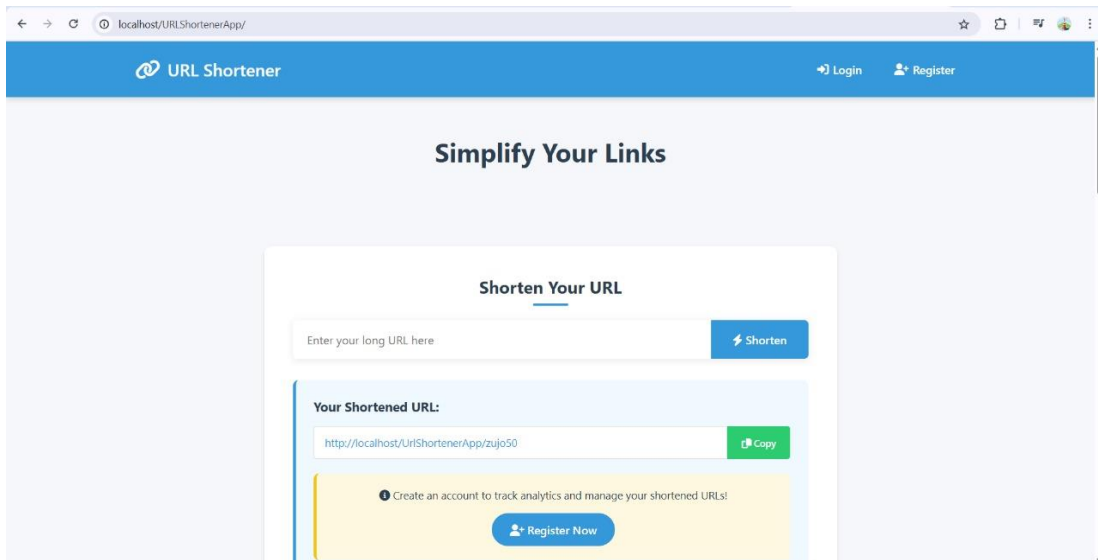
            // Delete the clicks first
            $stmt = $pdo->prepare($delete_clicks_query);
            $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameter
            $stmt->execute();

            // Delete the link
            $stmt = $pdo->prepare($delete_link_query);
            $stmt->bindValue(1, $link_id, PDO::PARAM_INT); // Bind parameter
            $stmt->execute();

            $pdo->commit(); // Commit transaction
            header("Location: index.php"); // Redirect back to dashboard
            exit();
        } catch (Exception $e) {
            $pdo->rollBack(); // Rollback in case of an error
            echo "Error: " . $e->getMessage();
        }
    } else {
        echo "Unauthorized access!";
    }
} else {
    echo "No link ID provided!";
}
```

```
}  
?>
```

Output:



Why Use Our URL Shortener?



Easy to Use

Shorten your URLs with just one click, no registration required.



Track Your Links

Create an account to access detailed analytics about your shortened URLs.



Manage Your History

View and delete your previously created links anytime.



Fast Redirection

Our system ensures quick redirection to your original URLs.

Powerful Features to Supercharge Your Links

Everything you need to create, manage, and analyze your shortened URLs

How It Works

1

Paste your long URL

2

Click "Shorten"

3

Copy your short link

4

Track performance

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localhost/URLShortenerApp/auth/login.php



Welcome Back

Email


Password

Sign In






Don't have an account? [Register here](#)

localhost/URLShortenerApp/auth/register.php

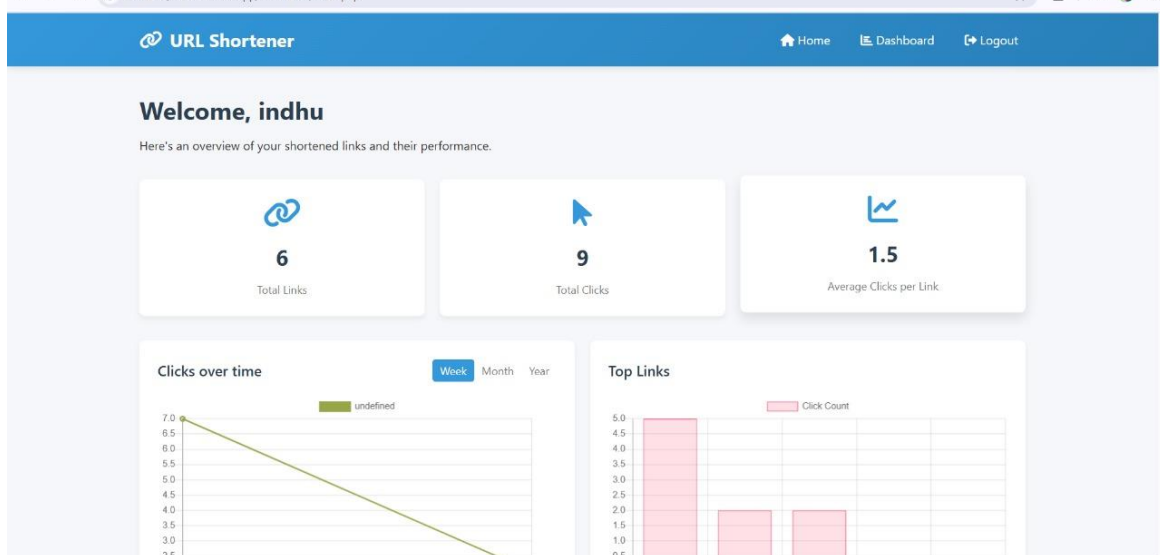
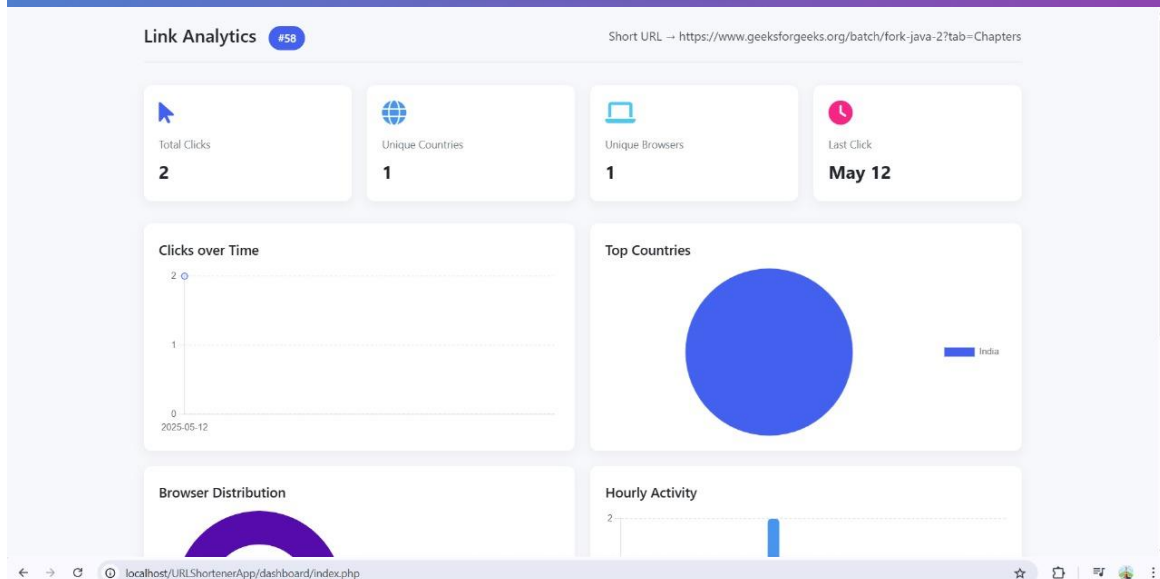


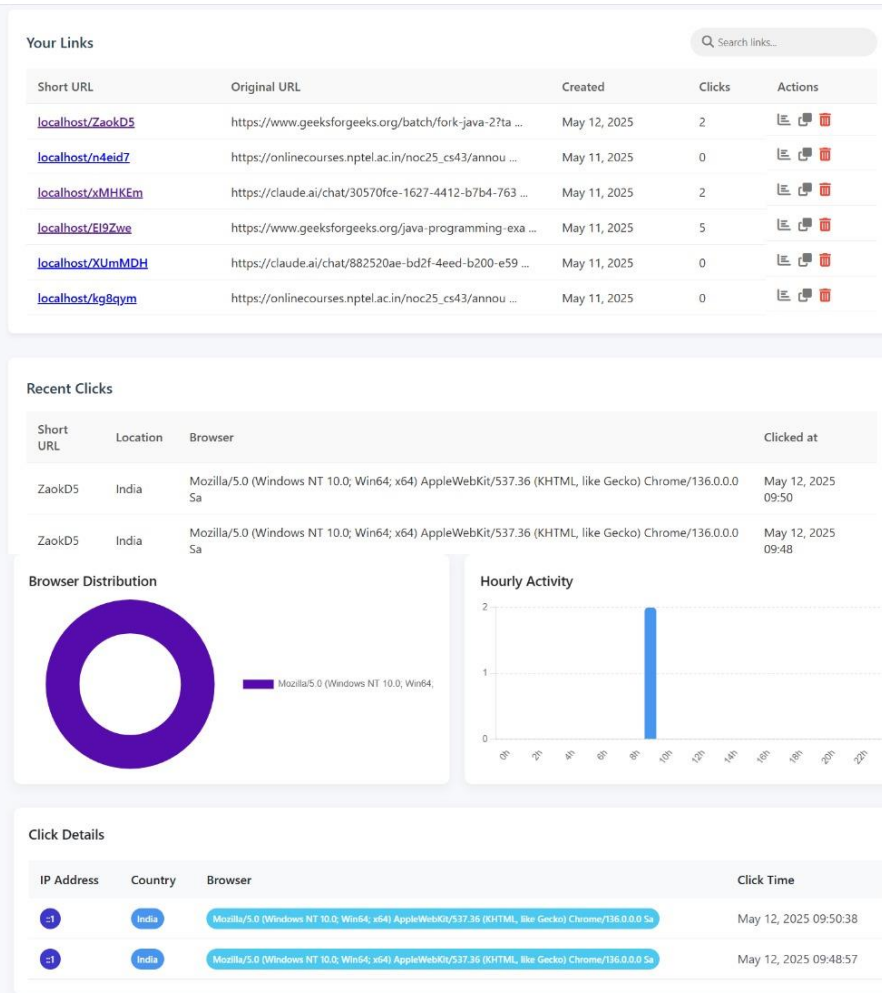
Create Account

Create Account

Already have an account? [Login here](#)





Reference:

1. "Database Management Systems" book by Raghu Ramakrishnan and Johannes Gehrke
2. *JavaScript and jQuery: Interactive Front-End Web Development* by Jon Duckett
3. <https://phpgurukul.com/php-tutorials/>
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