

Tech Job Portal

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1. Introduction

The **Tech Job Portal** is a web application focused on tech-specific job listings by scraping platforms like **Indeed** and **Glassdoor**. The platform aims to provide developers with a simplified and personalized job search experience with real-time updates.

2. Objectives

- Create a dedicated portal for tech-related jobs.
- Provide advanced search and filtering options.
- Enable users to save jobs and receive alerts.
- Keep job listings up-to-date through automated scraping.

3. Technologies Used

Component	Technology
Web Scraping	Python (BeautifulSoup, Scrapy)
Backend	Flask
Frontend	HTML, CSS, JavaScript (React/Vue.js optional)
Database	MySQL
Notifications	Email APIs (SendGrid), WebSockets
Scheduler	Celery / Cron Jobs

4. Key Features & Code Snippets

4.1 User Authentication

Handles registration, login, logout, and session management.

```
@app.route('/login', methods=['GET', 'POST'])
```

```
def login():
```

```
    if request.method == 'POST':
```

```

username = request.form.get('username', "").strip()
password = request.form.get('password', "").strip()
conn = get_db_connection()
cursor = conn.cursor(dictionary=True)
cursor.execute("SELECT * FROM users WHERE username = %s",
(username,))
user = cursor.fetchone()
if user and check_password_hash(user['password_hash'], password):
    session['user_id'] = user['id']
    session['username'] = user['username']
    flash(f'Welcome back, {user["username"]}!', 'success')
    return redirect(url_for('index'))

```

4.2 Job Searching & Scraping

Scrapes jobs based on user input and stores them in the database.

```

@app.route('/search', methods=['GET', 'POST'])
@login_required
def search():
    role = request.form.get('job_role', "").strip()
    location = request.form.get('location', "").strip()
    scrape_jobs(role, location) # Calls scraper function
    query = "SELECT * FROM jobs WHERE 1=1 ORDER BY id DESC LIMIT 20"
    cursor.execute(query)

```

4.3 Saving Jobs

Users can save jobs to view later.

```

@app.route('/save_job/<int:job_id>')
@login_required
def save_job(job_id):
    user_id = session['user_id']
    cursor.execute("INSERT INTO saved_jobs (user_id, job_id) VALUES (%s, %s)",
(user_id, job_id))

```

```
conn.commit()

flash('Job saved successfully!', 'success')
```

4.4 User Profile & Preferences

Allows users to manage profiles and job preferences.

```
@app.route('/preferences', methods=['GET', 'POST'])
@login_required
def preferences():
    if request.method == 'POST':
        job_role = request.form.get('job_role', "").strip()
        location = request.form.get('location', "").strip()
        email_alerts = 'email_alerts' in request.form
        cursor.execute("""
            UPDATE users
            SET preferred_role = %s, preferred_location = %s, email_alerts = %s
            WHERE id = %s
            """, (job_role, location, email_alerts, user_id))
        conn.commit()
```

5. Database Design

Users Table

Column	Type	Description
id	INT	Primary Key
username	VARCHAR	Unique username
email	VARCHAR	Unique email
password_hash	VARCHAR	Hashed password
preferred_role	VARCHAR	User job role preference
preferred_location	VARCHAR	User location preference
email_alerts	BOOLEAN	Enable email notifications

Jobs Table

Column	Type	Description
id	INT	Primary Key
Job_Title	VARCHAR	Job title
Company	VARCHAR	Company name
Location	VARCHAR	Job location
Salary	VARCHAR	Salary info
Job_Type	VARCHAR	Full-time / Part-time etc.
Source	VARCHAR	Scraping source

Saved_Jobs Table

Column	Type	Description
id	INT	Primary Key
user_id	INT	Foreign Key to Users
job_id	INT	Foreign Key to Jobs
saved_at	DATETIME	Timestamp

6. Scheduler

- The application uses a scheduler to run scraping tasks periodically.

```
from job_scheduler import start_scheduler
```

```
start_scheduler() # Starts scraping jobs in the background
```

7. Outcomes

- Dedicated portal for tech job seekers.
- Real-time updated job listings.
- Personalized search and notifications.

Search for Jobs

Job Role

developer

Location

chennai

Job Type (optional)

Any

 Search Jobs

Job Results for "developer" in "chennai"

Sr. JAVA Developer @ NTT DATA Services

Chennai, Tamil Nadu | Full-time | Not Disclosed

Posted: 2025-10-10T00:00:00.000Z

Req ID: 337151 NTT DATA strives to hire exceptional, innovative and passionate individuals who want to grow with us. If you want to be part of an inclusive, adaptable and forward thinking organization, apply now. We are currently seeking a Sr. JAVA Developer to join our team in Chennai, Tamil Nadu (IN-TN), India (IN). In these roles you will be responsible for:

- Develop, test, and maintain so

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Chennai, Tamil Nadu | Full-time | Not Disclosed

Posted: 2025-10-13T00:00:00.000Z

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[Apply Now](#)[Save Job](#)**Senior Software Engineer - UI Path Developer @ EPAM Systems**

Chennai, Tamil Nadu | Full-time | Not Disclosed

Posted: 2025-10-02T00:00:00.000Z

EPAM is a leading global provider of digital platform engineering and development services. We are committed to having a positive impact on our customers, our employees,

Career Opportunities: Sr. JAVA Developer (337151)

Already Applied: 3780 (100%)

Accepted file types: DOCX, PDF, image and text (RTG, PPT, etc.) File applications accepted for pending resumes (RTG).

Task Address *

Employee Email Address *

Current Password *

Show

New Password *

b

Show

New Name *

Last Name *



Search

