



JOB PORTAL SYSTEM

C Mini project



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Couse Name : PROGRAMING IN C

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Introduction

- Brief overview of the project:

This project implements a basic job search and application system in C. It allows employers to post job listings and manage applications, while job seekers can search for jobs and submit applications.

- Problem statement:

In today's competitive job market, there's a need for an efficient system that connects employers with potential candidates. This project aims to create a simple platform to facilitate this process.

- Objective:

To develop a console-based application that manages job postings and applications, demonstrating the use of structures, arrays, and basic file operations in C.

System Requirements

- Hardware requirements:

- Any computer capable of running a C compiler
- Minimum 2GB RAM
- 50MB free disk space

- Software requirements:

- C compiler (e.g., GCC)
- Text editor or IDE for C development

Design and Development

- Description of the program logic:

The program uses two main structures: Job and Application. It maintains arrays of these structures to store job listings and applications. The main function presents a menu-driven interface allowing users to choose between employer and job seeker functions.

- Pseudocode:

```
DEFINE MAX_JOBS = 100
```

```
DEFINE MAX_APPLICATIONS = 500
```

```
DEFINE MAX_LENGTH = 100
```

```
STRUCTURE Job:
```

```
    id: INTEGER
```

```
    title: STRING[MAX_LENGTH]
```

```
    company: STRING[MAX_LENGTH]
```

```
    description: STRING[MAX_LENGTH]
```

requirements: STRING[MAX_LENGTH]

STRUCTURE Application:

id: INTEGER

job_id: INTEGER

applicant_name: STRING[MAX_LENGTH]

applicant_email: STRING[MAX_LENGTH]

status: STRING[20]

DECLARE jobs: ARRAY[MAX_JOBS] OF Job

DECLARE applications: ARRAY[MAX_APPLICATIONS] OF Application

DECLARE job_count: INTEGER = 0

DECLARE application_count: INTEGER = 0

FUNCTION main():

WHILE TRUE:

 DISPLAY menu options

 READ user_choice

 SWITCH user_choice:

 CASE 1: CALL post_job()

 CASE 2: CALL search_jobs()

 CASE 3: CALL apply_for_job()

 CASE 4: CALL manage_applications()

CASE 5: EXIT program

DEFAULT: DISPLAY "Invalid choice"

[Other functions as described in the previous pseudocode]

Testing and Results

- Test cases:

1. Posting a new job
2. Searching for jobs with a keyword
3. Applying for a job
4. Managing applications for a specific job

- **Output screenshots or results:**

Test cases:

Test case 1:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 1

Enter job title: software engg.

Enter company name: Global UST

Enter job description: Develop and maintain software application

Enter job requirements: B.tech in Computer science

Job posted successfully.

Test case 2:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 2

Enter a keyword to search for jobs: software

Search Results:

Job ID: 1

Title: software engg.

Company: Global UST

Description: Develop and maintain software application

Requirements: B.tech in Computer science

Test case 3:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 3

Enter the ID of the job you want to apply for: 1

Enter your name: jo biden

Enter your email: jobiden@gmail.com

Application submitted successfully.

Test case 4:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 4

Enter the job ID to view applications: 1

Applications for Job ID 1:

Application ID: 1

Applicant Name: jo biden

Applicant Email: jobiden@gmail.com

Status: Pending

Test case 5:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 5

Thank you for using the Job Portal. Goodbye!

OUTPUT SCREEN SHORTS :

Test case 1:

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 1

Enter job title: software engg.

Enter company name: Global UST

Enter job description: Develop and maintain software application

Enter job requirements: b.tech in computer science

Job posted successfully.

Test case 2 :

Job Portal

1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit

Enter your choice: 2

Enter a keyword to search for jobs: software

Search Results:

Job ID: 1|

Title: software engg.

Company: Global UST

Description: Develop and maintain software application

Requirements: b.tech in computer science

Test case 3 :

```
Job Portal
1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit
Enter your choice: 3
Enter the ID of the job you want to apply for: 1
Enter your name: jo biden
Enter your email: jobiden@gmail.com
Application submitted successfully.
```

Test case 4 :

```
Job Portal
1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit
Enter your choice: 4
Enter the job ID to view applications

Applications for Job ID 1:
Application ID: 1
Applicant Name: jo biden
Applicant Email: jobiden@gmail.com
Status: Pending
```

Test case 5:

```
Job Portal
1. Post a job (Employer)
2. Search jobs (Job Seeker)
3. Apply for a job (Job Seeker)
4. Manage applications (Employer)
5. Exit
Enter your choice: 5
Thank you for using the Job Portal. Goodbye!

=== Code Execution Successful ===
```

- Discussion of results:

The program successfully allows users to post jobs, search for jobs, apply to jobs, and manage applications. The menu-driven interface provides an easy-to-use system for both employers and job seekers. However, the current implementation has limitations in terms of data persistence and user authentication.

Conclusion

- Summary of the project:

This project demonstrates a basic implementation of a job search and application system using C. It showcases the use of structures, arrays, and basic input/output operations to create a functional console-based application.

- Future enhancements:

1. Implement file I/O to persist data between program runs
2. Add user authentication for employers and job seekers
3. Implement sorting and filtering options for job searches
4. Add the ability to update and delete job listings and applications
5. Develop a graphical user interface for improved user experience

References

- C Programming: A Modern Approach by K. N. King
- Online C documentation at <https://en.cppreference.com/w/c>