

**ICT-502 INTERNET AND WEB DEVELOPMENT**

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**Job Recruitment Platform Web Application Report**

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1. Web Application and It’s Features.   
  
The Job Recruitment platform is designed to solve the problem of many job seekers. It can be beneficial to both companies and employees. Companies can register here by contacting support and posting their available vacancies. And the same way job seekers can apply for different types of available jobs according to their skills.   
  
Platform made it too easy to find perfectly fitting jobs. And the hustle of job seeker is decrease in many ways. Employees just need to submit their personal details with their well-structured resume. And that’s enough to find a perfect job. Companies will receive all the filled applications on the dashboard. And it makes it easy for them to find a perfectly fitting employee. They can filter between all the applications and manage their posting on the admin panel. The platform is divided into two portions. On is user and the second is admin. And the third is staff. But the staff role depends on admin.

**Admin Authorities:**  
**Jobs Creation**: admin can create jobs/vacancies according to their needs. They can include all the required skills in the description field. So, users can check them before applying.  
**Jobs Management:** admin also has authority to manage all the jobs. If Employer gets enough applications for jobs. They can simply disable that vacancy so the applications will stop on that job.  
**Management of applications:** admin can manage all the received applications. If they find any suitable candidate, they can pick the candidate’s details.   
**Staff Management:** All the staff will be there to manage applications and jobs and the admin can manage staff. Admin has authority to remove, add and edit all the details of staff member.  
  
**User:**

**Go through all the jobs:** User will have a wide range of available jobs.  
**Search Options:** Users can filter jobs according to the skill in which he/she wants to apply.   
**Submission:** the final step if candidate find any suitable job.

2. Technologies Used in Development.  
Job recruitment platform is fully designed in the core technologies like HTML, CSS, JAVASCRIPT and PHP.HTML is used to design the basic structure of the application. And CSS is used to give a colourful touch to application. CSS makes it more user friendly. JavaScript is used to make front-end functionalities to work. And PHP is used perform all the operation on data and functionalities in the backend. And SQL is used as database to store all the information and data.  
  
**Frontend**:   
**HTML:** HTML is used in this application to provide a basic structure.  
**CSS:** CSS is used to make it more user friendly and colourful so Application can look perfect.   
**JavaScript:** JavaScript is used to make it more interactive and perform all the operations in Fron-end.  
  
**Backend**:   
**PHP:** PHP is based on OOP (Object Oriented Programming). And it is used to perform all the backend operations in this application.   
  
**Database:**   
**MySQL:** SQL is used in this application to store and manipulate all the data.

3. Design and Development procedures will be outlined in detail.  
The Job recruitment platform is developed with deep analysis. And went through two phases one is research and other is development.  
  
  
**Design Phase**:   
**Research & analysis:** Research and analysis include all the requirement which we need to implement in current project.   
**Prototyping:** Prototyping includes the design of structure which we need to develop in current project. These steps made development of project easier.

**Design Phase**

Reasearch & analysis

Prototyping

**Development Phase**

**Front-end Development**

**Back-end Development**

**Integration**

**Development Phase**:  
**Structure & Design Development:** Frontend development include all the structure and design which user see in the front. In which we used HTML, CSS, JavaScript.   
**Functionalities with PHP for backend Development:** For all the backend functionalities we used PHP. With the help of it we communicate with MySQL database.

**Integration:** Integration mean connecting frontend with backend. And this is the final step in which we complete our project.

4. Challenges and their solutions which were faced while Development.  
While developing any application developer needs to face many problems. As the same way I faced many challenges in this application. Listing them below with some explanation and their solutions.

**1: AJAX: - in this type of project I need to call same function multiple type and need same function for multiple types of operation. And I faced the same problem which is making my projects structure more complex. And for handling it I used ajax method.**   
  
**Conclusion:** To address this challenge, I used **AJAX** method. In which I declared all the function at a one place and used state variable to manage operations. While calling any function I used state to tell ajax which function need to call in the case. This method helps me to handle complexities of my project. In any case I just need to call ajax with action and that action will got handle by ajax if else condition and call the required function. And I used jQuery to handle ajax call. With the help of jQuery, I used POST and GET method on ajax endpoints.

**2. UI (User Interface): - while developing any type of project the front-end part is the backbone. Because users will interact with applications with the help of frontend.**

**Solution:**  To make user experience smoother. I used many CSS libraries like Bootstrap to manage responsiveness on mobile or other smaller and bigger screens. And table view to show multiple entries on the admin panel. To make tables more attractive I used data tables in the project and look better than default HTML tables. And used jQuery for making Ajax call in the front end. It helps to integrate the front end with the Backend. Implemented a spinner in the front end to make it look got while calling Ajax. Till the response arrives from Ajax it will show a spinner. As user also know that something is happening in backend.

**3. Performance: - performance is the key point of any project. If you made a project that looks good and has many functionalities, but it is too slow then it won’t be a good project.**  
  
**Solution:** To manage performance of the project I created Ajax that will help in the

The backend process makes it easier to manage backend functionality. Or the same way if you write complex jQuery or JavaScript code in a project that makes project more complex. To handle this type of complexity, I wrote code cleaner and class based so that it does not affect another class or id.  
  
And Used PHP with HTML to create dynamic content. Used MySQL to store data in tables. And whenever user wants to see data, I used looping with PHP. After a loop we used HTML with dynamic content to render that data. It helps me to manage performance of Application while handling many job application and showing jobs. And most of content in the front end managed by backend like what title need to show and many more. I stored their value in MySQL. It reduces static coding and helps to enhance performance.  
  
And CSS also played a major role in boosting application’s performance. I created many elements with the same classes. So, it makes it easy to design the web. I just need to code CSS at one place. And will make effect on every same class element. And many PHP pre-defined functions are used in the same case.

5. Testing results.  
I tested this job recruitment portal in different cases. Like tasted with both roles as an admin and user. Both are different cases in one case I managed all the backend where job got posted. And made sure that every functionality is working code. And tested all the application related test cases. Checked all the connections with MySQL. And the same way tested all the functionalities of the user. Finding jobs and applying for them.  
  
**Testing Process**:   
**Test Cases**: wrote many test cases according to functions and roles.  
**Unit Testing:** Completed testing of every single test case which were written previously with roles and functions.  
**Integration Testing:** tested all the integration related cases like connectivity of frontend and backend with database. Performance of the application.  
**Responsiveness:** Checked the CSS and the design of application. On many types of screens. Like on mobile, Desktop and tablets. To make sure that it looks good on every type of devices.  
**User Acceptance Testing:** This involves testing with a user group at which point we take their feedback and confirm if this really works as it should thus improve professional implementations in future also.

Job portal makes it easier to find jobs and employees in the hustle freeway. So, this can be beneficial in many ways.it is a simple application based on PHP. HTML, CSS, jQuery also played major role while developing this application.  
  
  
  
  
  
**6. Website URL.**

Please check out the website at your convenience and make your choice.  
**[Paste Your Website URL]**