Mid-Term Report

On

Grievances Redressal Portal

Submitted at partial fulfilment of six months training at

District Development Office,
Government of Punjab

Submitted by: Rupali Bawa

Roll no.: 11801309

Department of Computer Science and Engineering

Punjabi University, Patiala

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Acknowledgement

I am highly thankful to HOD, Department of Computer Science and Engineering, Punjabi University, Patiala for providing me with this opportunity to carry out six weeks industrial training at District Development Office, Patiala.

I would like to express my gratitude to other faculty members of Computer Science & Engineering Department of Punjabi University, Patiala, for providing academic input, guidance and encouragement throughout the training period.

Training is agglomeration of the theoretical and practical and technical concepts, which enhances our skills in the field of technology. This project is not a solo effort. I would like to add few words for the people who were a part of this project, people who gave never-ending support right from the beginning of the project. There is a long list of people who have directly or indirectly made this project possible. I express my sincere thanks to all of them.

I would first like to thank my project guide S. Surinder Singh Dhillon, for his personal involvement and guidance which has been extremely helpful in bringing about a successful fulfilment of the project. He has provided me all the necessary information and guidance which has proved to be of great help in the achievement of the goal. I would also like to thank all DDPO staff for their valuable support and guidance. I am highly thankful to all the teachers of the department for their guidance and support.

Last but not the least, I express my indebtedness to all who have directly or indirectly contributed to the successful completion of my industrial training.

Rupali Bawa

Preface

The well planned properly executed and evaluated training helps in the development and implementation of a project. It provides linkage between the student and the organization in order to develop the awareness of approach to problem solving based on broad understanding of process and mode of operation of an organization.

The project reports serve the purpose of elaborating the analysis and the implementation phases of the above-mentioned project. All the features included in the development and implementations are clearly explained to make the project easy to understand. A great care has been taken care of in this document to elicit the system development process in a clear and well-defined manner.

During the training period I learned how an actual project progresses, what sort of problems occur during the development phase, how to develop quality products and implement them. At last, I would like to thank my project guide, Surinder Singh Dhillon sir, for their support and guidance to help in the development of the project. Without their assistance, I could not have taken on this mammoth task.

Rupali Bawa

Declaration

I hereby declare that the project work entitled **"Grievances Redressal Portal"** submitted to the Department of Computer Science Engineering, Punjabi University, Patiala, and DDP Office, Patiala is a record of an original work done by me. This project report is submitted at the complete fulfilment of the project, as required, for the award of the Bachelor of Technology in Computer Science and Engineering. The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

Rupali Bawa

About the company

District Development and Panchayat Office, Patiala

District Development and Panchayat Office (DDPO) is one of the key department in the administration of district of Patiala. It is headed by DDPO Officer and falls under the administration of ADC (Development), Patiala. The role of department of Development becomes crucial whenever we discuss the state of development in any district. The DDPO, Patiala is a progressive and reformist department, with a transformative vision. The aim of the department is to not just achieve a developed city, but also all the villages falling under the jurisdiction.

Patiala district is one of the famous princely states of erstwhile Punjab. Forming the south-eastern part of the state, it lies between 29°49' and 30°47' north latitude, 75°58' and 76°54' east longitude.

It is surrounded by the districts of Fatehgarh Sahib, Rupnagar and the Union Territory of Chandigarh in the north, Sangrur district in the west, Ambala and Kurukshetra districts of neighbouring state of Haryana in the east and Kaithal district of Haryana in the south. District Development and Panchayat Officer is the principal officer to help the Deputy Commissioner to carry on the community development and welfare programmes. He deals with the following subjects:-

1. Work relating to the development.
2. Five Year Plans and local development works.
3. Panchayat Samitis, Local Bodies and Panchayats.

Block development and Panchayat officers work at the block level subordinate of District Development and Panchayat Officer. District Patiala has 6 sub-divisions, 9 blocks, and 934 villages. Some of the most important functions like MNREGA scheme is the prime responsibility of the department.

About the Project

Grievances Redressal Portal

The proposed system is an online complaint management system for submitting complaints online by using the said portal, a user or a subject can upload/post his complaint from anywhere by using this website on his phone or PC online. GRP is an easy and secure way as compare to other previous methods used by the department like ‘complain box’, which was difficult to manage and accountability was very low.

Due to an online compliant box manual effort and wastage of paper will also decrease. Residents of Patiala district can submit their complaint by quickly and anonymously. User can check the current status of their complaints and can view that what kind of action has been taken on their complaint.

The proposed system will show the current status of the complaint that whether it is ‘in processing’ or ‘closed’. It is based on centralize management, i.e. only the Admin can address the complaint. Admin has the authority to remove a complaint that has been addressed or any unnecessary or false complaints. Centralized management for checking current status of complaint and updating status of complaints. Admin can generate a report of this system in between selected date of his own choice

Features of the project:

1. More accountability and transparency
2. Effective support and redressal mechanism
3. To reduce paperwork.
4. Reduced operational time.
5. Increased accuracy and reliability.
6. Reducing human efforts.
7. Easy maintaintenance of Data.
8. Data security.

System Analysis

Feasibility Study:

Feasibility study defines all the requirements to performance characteristics of system.
For system to be feasible, the design needs to undertake various factors or performance requirements by which the system will be operated.
A feasibility study is short, focused study which aims at selecting the best system that meets performance requirements. Information is gathered regarding the general requirements of the proposed system.
If feasibility study is to serve as the decision document, it answers a number of questions.
Like

- ✓ Is it beneficial?
- ✓ Does it save time and money?
- ✓ Can it be integrated with other systems already in place?

Planning resources is a very vast concept and we are beginners, thus including each and every aspects of web, Integrate and automate them in every respect was not feasible for us. Hence we perform feasibility study to make our project compatible for present environment. The concept of HR Management is newer. The project is built with the help of **Python** which is reliable and an efficient platform to work upon.

Technical feasibility:

Technical feasibility takes of the all the issues concerned with the design and the development part of the project. It concerns itself with the software, hardware and the platform related issues. The following are the technical specifications for our project.
The project would require a lot of space for storage of static as well as dynamic content.
As the number of project available increases the space required for storing them increases.

Economic feasibility:

- ➢ It provides an efficient and reliable platform to work upon.
- ➢ It saves time and is thus a faster means of company and individual profile details.
- ➢ It is less tough than the manual management of all the data that is shown in the project.

Tools & Technologies used

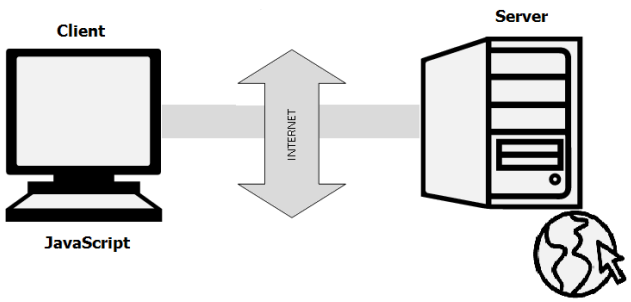
1. Tools:

- **Atom**: Atom is a free and open-source text and source code editor for macOS, Linux, and Microsoft Windows with support for plug-ins written in Node.js, and embedded Git Control, developed by GitHub. Atom is a desktop application built using web technologies. Most of the extending packages have free software licenses and are community-built and maintained. Atom is based on Electron (formerly known as Atom Shell), a framework that enables cross-platform desktop applications using Chromium and Node.js. It is written in CoffeeScript and Less. Atom was released from beta, as version 1.0, on 25 June 2015. Its developers call it a "hackable text editor for the 21st Century".

- **MySQL**: Microsoft SQL Server is a relational database management system developed by Microsoft. As a database, it is a software product whose primary function is to store and retrieve data as requested by other software applications, be it those on the same computer or those running on another computer across a network (including the Internet). There are at least a dozen different editions of Microsoft SQL Server aimed at different audiences and for different workloads (ranging from small applications that store and retrieve data on the same computer, to millions of users and computers that access huge amounts of data from the Internet at the same time).

2. Technology:

- **JavaScript**: JavaScript (JS) is a scripting languages, primarily used on the Web. It is used to enhance HTML pages and is commonly found embedded in HTML code. JavaScript is an interpreted language. Thus, it doesn't need to be compiled. JavaScript renders web pages in an interactive and dynamic fashion. This allowing the pages to react to events, exhibit special effects, accept variable text, validate data, create cookies, detect a user's browser, etc



There are two ways to use JavaScript in an HTML file. The first one involves embedding all the JavaScript code in the HTML code, while the second method makes use of a separate JavaScript file that's called from within a Script element, i.e., enclosed by Script tags. JavaScript files are identified by the .js extension. Although JavaScript is mostly used to interact with HTML objects, it can also be made to interact with other non-HTML objects such as browser plugins, CSS (Cascading Style Sheets) properties, the current date, or the browser itself.

Features of java script:

- JavaScript is a object-based scripting language.
- Giving the user more control over the browser.
- It Handling dates and time.
- It Detecting the user's browser and OS,
- It is light weighted.
- JavaScript is a scripting language and it is not java.
- JavaScript is interpreter based scripting language.
- JavaScript is object based language as it provides predefined objects.
- Most of the javascript control statements syntax is same as syntax of control statements in C language.

- **HTML (HYPER TEXT MARKUP LANGUAGE): HTML** stands for Hyper Text Markup Language. It is used to design web pages using markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages. Markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most of markup (e.g. HTML) languages are human readable. Language uses tags to define what manipulation has to be done on the text.
  HTML is a markup language which is used by the browser to manipulate text, images and other content to display it in required format. HTML was created by Tim Berners-Lee in 1991. The first ever version of HTML was HTML 1.0 but the first standard version was HTML 2.0 which was published in 1999.

  Elements and Tag: HTML uses predefined tags and elements which tells the browser about content display property. If a tag is not closed then browser applies that effect till end of page.

  HTML page structure: The Basic structure of HTML page is given below. It contain some elements like head, title, body, etc. These elements are used to build the blocks of web pages.

- **CSS: C**ascading **S**tyle **S**heets, fondly referred to as **CSS**, is a simply designed language intended to simplify the process of making web pages presentable. CSS

allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. CSS is easy to learn and understood but it provides powerful control over the presentation of an HTML document.

- **CSS saves time:** You can write CSS once and reuse same sheet in multiple HTML pages.
- **Easy Maintenance:** To make a global change simply change the style, and all elements in all the webpages will be updated automatically.
- **Search Engines:** CSS is considered as clean coding technique, which means search engines won't have to struggle to "read" its content.
- **Superior styles to HTML:** CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- **Offline Browsing:** CSS can store web applications locally with the help of offline catches. Using of this we can view offline websites.

SQL: SQL (Structured Query Language) is a computer language aimed to store, manipulate, and query data stored in relational databases. The first incarnation of SQL appeared in 1974, when a group in IBM developed the first prototype of a relational database. According to ANSI (American National Standards Institute), it is the standard language for relational database management systems. SQL statements are used to perform tasks such as update data on a database, or retrieve data from a database.

Hardware Requirements:

- **Processor**: 32-bit, 4-core, 1.5 GHz minimum per core
- **RAM**: 256 MB (minimum)
- **Hard disk**: 1 GB
- **Peripherals**: Mouse and Keyboard
- **Internet Connectivity**: Required

Software Requirements:

- **Operating System:** Window XP and above
- **Front end**: Java 1.8
- **Back end**: Sql server

Disclaimer

This project is subject to the approval of Ms. Preeti Yadav, ADC (Development) and Mr. Surinder Singh Dhillon, DDPO Officer.