

**DESIGN AND DEVELOPMENT OF A WEB BASED APPLICATION FOR
ONLINE JOB SEARCH AND CV CREATE**

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Degree of Bachelor of Science in Computer Science and Engineering.

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We here by declare that this project has been done by us under the supervision of **Md. Tarek Habib, Assistant Professor of CSE Department**, Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

“Your Job” is an online web based application where anyone can search for Jobs. In this system job search will be much more easier than ever. In this system, there will be a CV creation option where the CV will be created by giving proper information of the applier. The CV format can be chosen from five or six given formats which will be in the web application. In this system, firstly the applier or job searcher have to fill up the information form where the applier have to fill up all of his or her personal, educational and academical information. After giving the information the system will create the CV and the applier can save his or her created CV from the system in PDF format to his or her digital system. The main attraction of the system is to search jobs according to the appliers qualification. The applier don’t have to search for his or her jobs. The web application will do the work for the applier. After making the CV the applier have to choose a option “Search for Jobs”. After clicking the “Search for Jobs” option the system will begin to search for Jobs through the information that are given in the CV. If there is any Job, The system will automatically show the jobs to the applier. And then the applier would be able to submit his or her CV in that Job option. If there is no Job according to the given information then the applier don’t have to worry about. The applier have to login or sign-up with his or her e-mail address and of course with a password for security reasons. After signing up the system will give update about new jobs according to his or her qualification. This web based application will also have the common features like other web application in Bangladesh such as Job portals, Contact, Information, Job Blogs etc.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Bangladesh is a small country and it is facing economic challenges, as job creation are highly correlated with the challenges of faster growth. Job is a word that defines people if they are successful or unsuccessful in their present life. Today's definition of job is to establish oneself in their life. Bangladesh is a small country with a huge population and it is developing in daily basis on many kinds of work. In Bangladesh "JOB" word is like a curse to everybody. But the purpose of this project is to make this word a reliable word to everybody who says that "JOB" is like a curse or burden to their life.

1.2 Motivation

We know that Bangladesh is a developed and overpopulated country. Bangladesh is developing day by day but many of the graduated people of Bangladesh are not employed according to their qualification. If we talk about ourselves then one day we will be graduated from our university and we will see that we haven't find any jobs according to our qualifications and we have to go through many difficulties for finding a job. As we know that today's job search are all web based. Everybody have to go through all the pages of the website searching for their jobs. But we want to make this things way too easier for the people of Bangladesh and for us too.

1.3 Objective

1. CV create
2. Finding Jobs
3. Image Inserting

1.4 Expected Outcome

The expected outcome from this proposed project will be:

An Applier can create a CV from the website and he can choose any CV format from the given CV formats and then he will be able to save his created CV in PDF format in his laptop or personal computer.

After making the CV he doesn't have to search for the jobs. The jobs will show up according to his qualification. So the applier won't have to go through all pages of the website for searching his jobs and it will save time.

The Android Application will be a time saver too. The applier have to download the application from the play store and after logging in the application, the application will notify him about new jobs where he can apply for jobs. So that he shouldn't be worry about searching his jobs.

And the last feature of the Android Application will be "Image processing". the applier will take a picture from his own device and he has to upload the picture in the android application and he will be able to resize his pictures in the application. No need to scan pictures or photo-shop the pictures to resize.

1.5 Report Layout

The initial report consists of the title page, approval page, abstract, Acknowledgement, table of content, list of table, list of figures. Those pages are paginated part by part in this report. Our organized report as follows:

In chapter 2, we have discuss the background theme of our project. We also briefed about the related work ,the scope of the problem and challenges of the project and we are compared too many other candidate system. In chapter 3, We have specified the requirements of the project. We have defined the use case diagram, data flow diagram, Entity Relational (ER) diagram and design and design requirements. We also discussed about the requirement collection and analysis process. In chapter 4, We have specified the front end and the back end design of the project. In chapter 5, We have exhibited the implementation of the total project and I have tested every part of the project whether all the application is working as expected. In chapter 6, We have discussed about conclusion and the scope for further development of the project.

Finally the last pages of the report We give the related reference to ensure that the information are must be correct.

CHAPTER 2

BACKGROUND

2.1 Introduction

In present situation in Bangladesh, the big problem is unemployment. Now a day internet access is easy for everyone to get their desired information. As all the companies are providing their job circulars in their portal according to their needs, a job seeker is unable to find he(s) or her(s) desired job according to his or her(s) qualification because of the companies prefixed job categories. They have to go through not only the portals but also the websites of different companies and different job searching websites. Our goal is to provide the job seekers an easy way to find their desired jobs according to their skill requirements in one place. For the world is getting developed, Bangladesh is also getting digitalized by connecting the people through internet and by our project the unemployment problem can be decreased by making the job seeking process easy and get the first step done by applying in different sectors to get employed.

2.2 Related Works

At present there are about 24 job sites in Bangladesh [1]. There are some foreign websites [2], [3], [4] where Bangladeshi people apply for their jobs too. The main objectives of these websites are posting latest jobs for job seekers of Bangladesh. They also provide some support in related to job seekers such as job seeking options, career blog, interview tips, newspaper circulars, training, workshops, seminar etc. But they are posting as their needs. For example

- BD Jobs Today [5] has separate zones for job seekers and employers. This site provides general knowledge questions and answers for Jobs. It also provides latest and demanding jobs in our country. Like other job sites it contains jobs according to different fields.
- Skill Jobs [6] is one of the most popular job site in Bangladesh. This site provides Various training facilities for the job seekers for different fields. In this site one

person can post his resume or CV in advance. And the other features of this website are same as before.

2.3 Comparative studies

Almost in every place all the information is same for the companies are providing job circulars according to their needs. But a job seeker carries different skills rather than the provided skills by the companies. So he or she has to face difficulties in searching their desired jobs. By our work a job seeker can easily find his or her desired work sector and apply for the job.

2.4 Scope of the problem

- Creating CV with format.
- Finding Jobs by the requirements.
- Finding Newspaper Jobs.
- If provided data is incorrect system will not work properly.
- Android application requires internet access permission.
- Internal process error.

2.5 Challenges

- Configuring and integrating the PHP language.
- Template connecting the Database.
- Cross domain posting data access problem.
- Making the design beautiful and user-friendly.
- Captcha solving using image processing library

CHAPTER 3

REQUIRMENT SPECIFICATION

3.1 Business process Modeling:

Business process modeling (BPMN) allows us to capture and document business process of an organization or system in a clear and consistent way that ensures relevant stakeholders, such as process owners and process users.

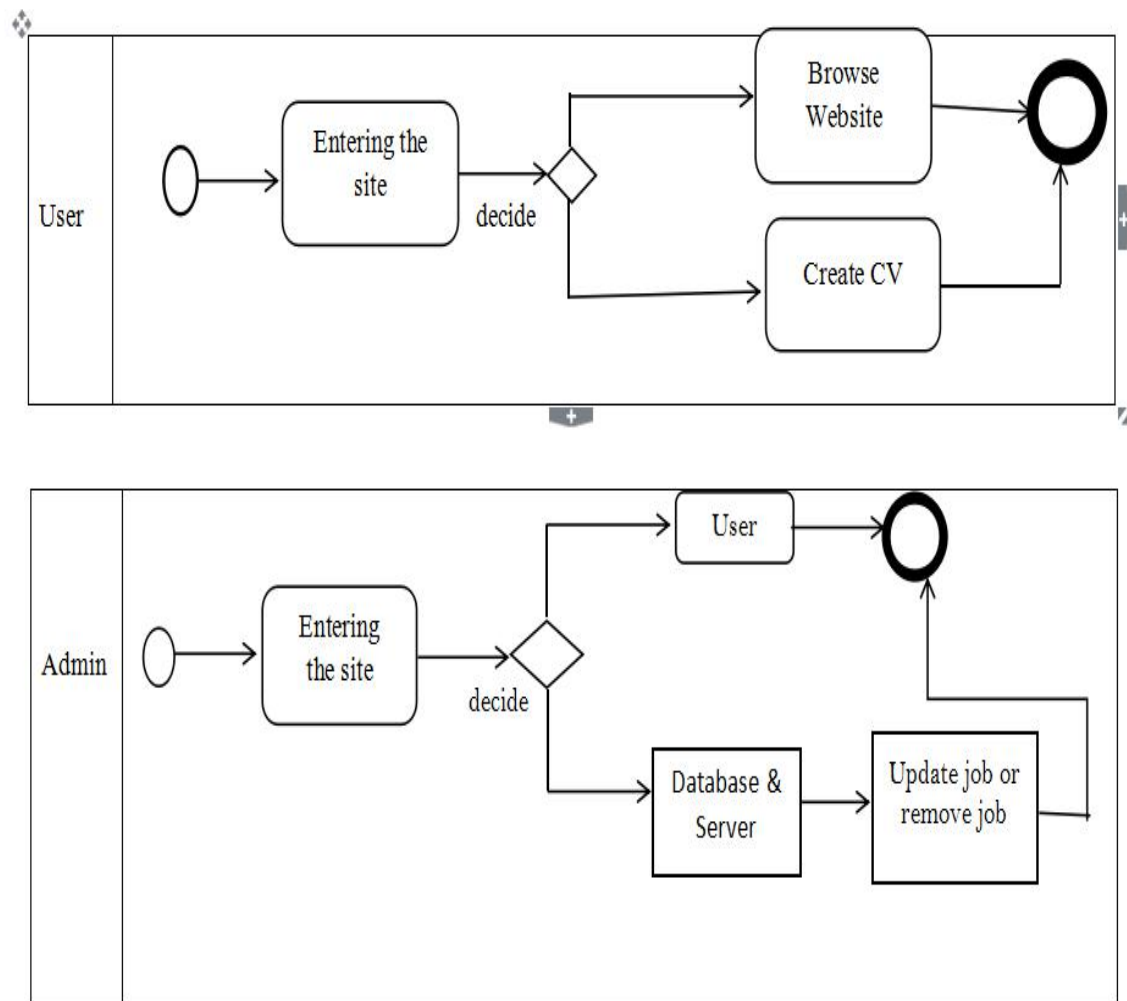


Figure 3.1: Business Process Model of our system.

3.2 Use case Modeling and Description:

Here we have two Actors, Admin and Users. Admin does control the whole system. Admin can add and remove the advertisement and the users. Users can browse jobs and they can also create their CV and then download it.

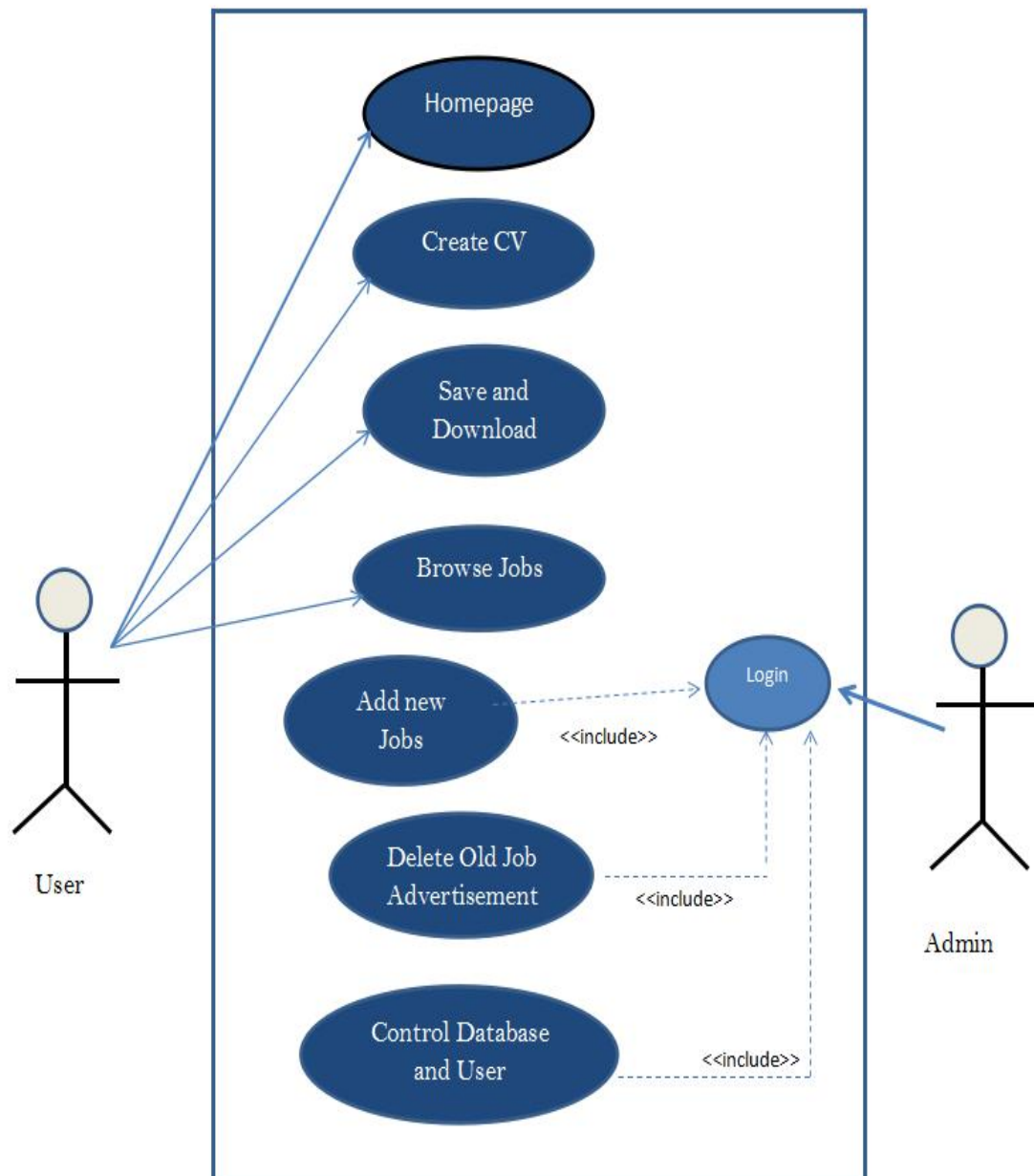


Figure 3.2 : Use case Diagram of our System

3.3 Logical Data Model:

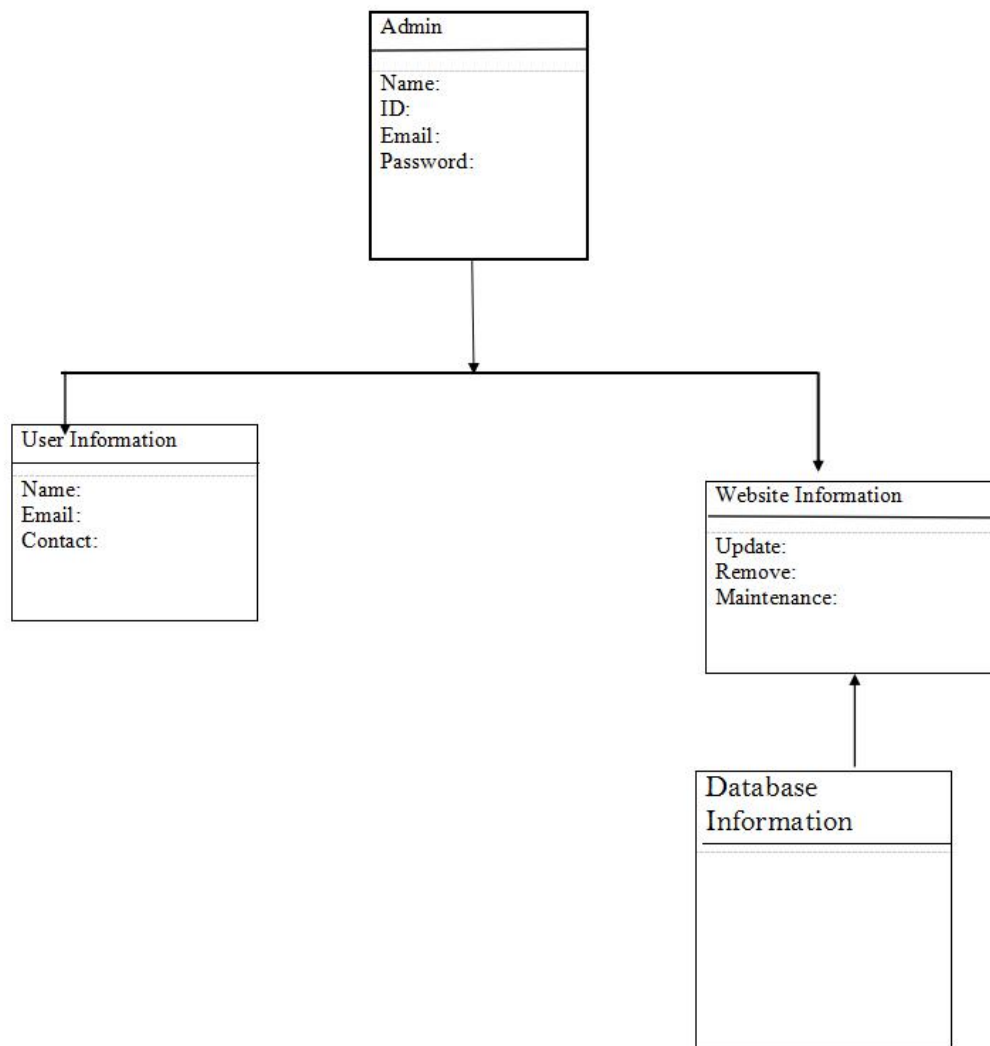


Fig 3.3 : Shown Data Model of the system

CHAPTER 4

DESIGN & IMPLEMENTATION

In this chapter we demonstrate the design of our system. We also describe the implementation of all the tools and technology to build this system. Here we have demonstrate how we have tested our system after building it in description.

4.1 Front-end Design

A “front-end” application is one that application users interact with directly. Front-end design involves creating the Hyper Text Markup Language(HTML), Cascading Style Sheet(CSS) and presentational web development language that makes up a user interface. Front-end is the most crucial part in web based system development. Front-end design is being run inside the user’s browser. The objectives of designing a site ensure that when the users open up the site, they can see the information in a format that is easy to read and understand. The front-end developers create features and components that are indirectly accessed by a valid user through a web application.

Become a Front-end web application developer by learning:

- Learn HTML,
- Learn CSS,
- Learn JAVASCRIPT
- Learn JQUERY,
- Learn BOOTSTARP,
- Learn UX

4.2 Back-end Design

A back-end design is a type of computer programming where creates the logical data implementations of website, software or information system. Deliver smooth functionally and information from the database into the browser. The background is the combination of database and a software writer in a server side language, which run on web servers, cloud-servers. The back-end of web application is often called the server side in the web industry [7]. Often when someone says he is a web developer that means he is working on the back-end of websites.

Angular.js, JQuery.js: These are languages, but rather they are frameworks and libraries written in JavaScript. They are meant to be used on the front-end with JavaScript, Python, Asp.net, PHP and Ruby, These are programming languages those are used on the server side for developing websites. We often think of back-end languages as code that's processed by something built in to the web server itself or a plug-in to the server.

In software engineering, the terms front end side and back end side refers to the breakage of concerns between the data access layer and software layers. The server is usually working as the back end side and the client is usually working as the front end side, even when some working process is actually done on the server in the client server model. In software design, layers can be between end user and the hardware. Each can be spoken of as having a front end side and a back end side [8]. That is a revocation, facilitating the underlying materials by providing a user-friendly interface, while the back end usually controls business logic and data storage.

Become a back-end web application developer by learning:

- Learn PHP & SQL and become good at it,
- You must have better knowledge on Database.

4.3 Interaction Design and UX

Interaction design is an important component within the giant umbrella of user experience (UX) design. Interaction Design can be understood in simple terms like: It is the design of the interaction between users and products. The goal of interaction design is to create products that enable the user to achieve their objective(s) in the best way possible. On the other hand UX design is about shaping the experience of using a product, and most part of that experience involves some interaction between the user and the product [9].

4.4 Implementation Requirements

There will be two log-in panel where one is to login as an user and the other one is to when making the CV. Log-in panel contains user login form. User enter user name and password click the login button to login to the system. If a user does not have an account, user can create a new account. After click the Create an account link, registration form is open on a new window. Then fill up the form and submit basic information for the registration.

Now when creating the CV from, the user have to fill up the required fields along the other non-required information. CV form will not be generated if the required field is empty.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of database

The implementation phase is where you install the DBMS on the required hardware, optimize the database to run best on that hardware and software platform, and create the database and load the data. The initial data could be either new data captured directly or existing data imported from an another DBMS. In this phase we install Database Management System (DBMS) on the required hardware, optimize the database to run on the hardware and software platform, it also create and load the table of the database. Now the steps are:

- SDLC - Waterfall Model,
- Database Life Cycle,
- Requirement gathering,
- Analysis,
- Logical Design,
- Implementation,
- Realizing the design.

Here is the working diagram of execution and pursing of a DBMS Process

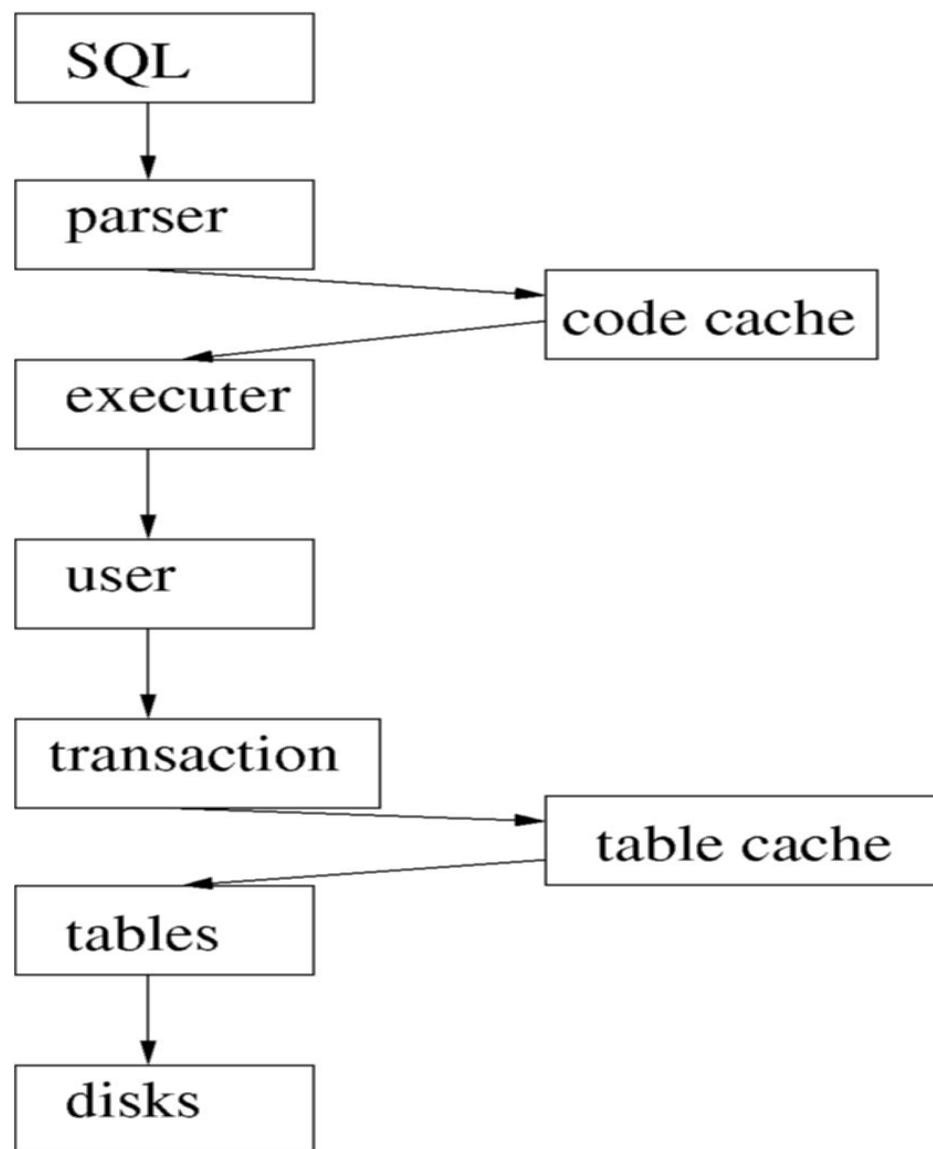


Figure 5.1: Execution And Pursing of a DBMS

5.2 Implementation of Front-end Design

Front-end web development which can also be called client-side development is the implementation of HTML, CSS and JavaScript and other web development language so that a user can see and interact with the site. The main challenge for creating front end of a website is the tools and techniques using for developing are changing constantly or upgrading so the developer needs to keep it mind and ready for any change of update of the website. The main objective of developing of a site to ensure that when the user or client open the site they see the site in a format that is easy to read and use. The next challenge is, the users now use a large variety of devices and different screen sizes and resolutions so developers need to keep this in mind when they design the site. Developers also need to ensure the site comes up perfectly in all browsers, various operating systems and different device. Developers need to plan it carefully and perfectly in development time.

5.3 Implementation of Interactions

Interaction design specifies the functionality of a web app through the definition of structures, behaviours and responses to user-app interactions. The main means of interaction, mean that Web developers need to pay particular attention to interaction functionalities when they develop applications that are running by the users in various devices. At the browser level, user agents need to interact with assistive technologies to expose the semantics of the web content. An increasing share of touch based devices like touch PC, laptops and mobile devices. While the traditional interactions recognized in the Web platform (keyboard, mouse input) can still be applied in this context, a more specific handling of touch-based input is a critical aspect of creating well-adapted user experiences.

5.4 Testing Implementation

In this implementation part the developer run different test to ensure that the system or website work perfectly. It can be done manually or using a testing tool. After testing developer can be understood what need to be changed or what need not.

The testing process involved:

- Testing for admin login process.
- Testing for applier registration process.
- Testing for successful CV create process.
- Testing for feature interaction process.
- Testing for successful login process.
- Testing for successful logout process.
- Testing for checking working process of users in the system.
- Testing for all users working access.

5.5 Database Server and Administration tools:

The database server to store the system data and retrieve the data when the system need it. The administration tool to allow the database admin to make backup or changes to the website database when it required. We want to reduce the cost of the system ,so we use “mySQL “server for our database system. It is very trusted and very popular open source database system which is available free for charge and comes with an assemble of useful administration tools[10].

5.6 Web Server

The work of the web server is to allow any computer of laptop connected with internet to host a website[11]. This is done by associating a certain folder on the computer or laptop with the computers IP address. When as soon as someone from a different computer attempts to access the IP address of the hosting computer using HTTP[12], they are redirected to chosen the folder specified in the web servers configuration file.

5.7 PHP Server

The work of a PHP server allows the host computers browser to execute the PHP code and view PHP web pages. **PHP** code is usually processed by a **PHP** interpreter implemented as a module in the web **server** or as a Common Gateway Interface (CGI) executable. The web servers runs only one single threaded process, so PHP application will stall if request is blocked. PHP version 5.6.0 was used for the assignation of the web based application.

5.8User Interface

In Information technology the user interface(UI) is everything designed into an information device which a person may interact. This can include display screens, keyboards, a mouse and the appearance of a desktop. It is also the way through which a user interacts with an application or a website.

These are some screen shots of the User Interface of our system.