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The Digital Resume in an Extended Format

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ABSTRACT: A resume is a formal record that job seekers produce to demonstrate their eligibility for a job. Typically, it is combined with a personalized cover letter, following a traditional format, through which candidates express their enthusiasm for the particular position and provide information about their background and experience in that industry. What if we can have a little more advanced type of showcasing our resume? Where the user can introduce themselves in a video and then showcase his or her achievements, experience and skills in written and photo format data. So we are building a website where users can create their resume with the above mentioned specification and for sharing this resume the user only need to share a link or QR code to the company or institution instead of a resume. This will be like a personal website of a person where all the qualification data is stored in the form of an advanced resume.

KEYWORDS: QR Code, PHP, MySQL, Relational Databases

I. INTRODUCTION

Resume has always been the major piece of document that has always been integrated in the job seeker's arsenal apart from other qualifications. Job seekers from virtually every field nowadays are required to submit or present usually a single page document that depicts the qualification, the skills and the experiences the applicant claims to possess. Recruiters, other personnel working as well as talent acquisition officers use this piece of document to shortlist individuals for the position they posted. Essentially, nowadays major recruiting companies and other organizations looking for a talent will be using scrapers to be able to identify the candidate that is most suitable for a specific position. The bottom line is that every applicant wants to be shortlisted and ultimately get hired by an organization he or she applied to.

We want to create a smart resume where candidates can increase their chance of getting shortlisted and even get hired.

II. RELATED WORK

Basically, related to our project there has not been any specific research as the idea is new but we have researched in areas related to our project like we did almost thirteen literature reviews and based on them I can relate.

In the paper of "New Generation of Digital Academic-Transcripts using encrypted QR Code™" The author of this paper introduces a new method for digitizing mark sheets, or academic transcripts, and embedding the digital format as an encrypted QR Code™ within the mark sheet itself, preventing unwanted users from accessing the digital data. By doing this, it is observed that it can conserve a significant amount of the digital space that was required to store each student's individual academic data. The use of encrypted QR codes in digital academic transcripts helps to prevent fraud and tampering of academic records. Encryption ensures that the data stored in the QR code, only authorized individuals can access parties who have the necessary key for decryption. Which means the key for guidance stored in the digital transcript cannot be altered or falsified without detection. Additionally, QR codes provide a quick and easy way to access the information stored in the digital transcript, making it more convenient for students, institutions, and employers to verify the authenticity of academic records. In terms of accessibility, digital academic transcripts can be easily shared and accessed by authorized parties anywhere in the world, as long as they have an internet connection and

a device that can read QR codes. This eliminates the need for physical transcripts to be physically mailed or transported, saving time and resources.

Moreover, the use of digital academic transcripts helps to reduce the environmental impact of producing and transporting paper-based transcripts. By reducing the use of paper, digital transcripts are a more environmentally sustainable option. Overall, the implementation of encrypted QR codes in digital academic transcripts represents a significant advancement in the way academic records are managed and shared. It provides a secure, convenient, and accessible alternative to traditional paper-based transcripts, and helps to promote a more efficient, sustainable, and secure academic record management system.

In conclusion, the use of encrypted QR codes in the latest version of digital academic transcripts offers a reliable, user-friendly, and easily available substitute for traditional paper-based transcripts, especially for the younger generation. With the increasing reliance on technology in education, this innovative solution offers a way to store and transfer academic records efficiently, while also providing an added layer of security through encryption. As a result, students, institutions, and employers can be assured that the information contained within these digital transcripts is accurate and secure. The implementation of this technology is a step towards a more streamlined and secure academic record management system [1].

In the paper “Resume Builder Application” the author aims to address the problematic areas in the employment and recruitment sector by integrating descriptive analysis, deep learning, and sentiment analysis to enhance the recruitment and job-seeking process. Through the proposed system, job seekers can submit their resumes and specify their interest in the IT job sector, which allows the system to suggest suitable job opportunities while filtering out irrelevant job postings. Furthermore, job seekers can benefit from the predictive models to make informed career decisions. Similarly, the system assists recruiters in rapidly identifying the best candidates by inputting job requirements, and the candidate selection is not solely based on the information provided in their resumes but also on the system's analysis. Resume builder applications are designed to simplify the process of creating a resume and help job seekers create a professional-looking document in a fraction of the time it would take to create one from scratch. They offer a variety of templates and design options, making it easy for users to customize their resume to meet their specific needs and highlight their strengths.

Many resume builder applications also provide helpful tips and suggestions for writing effective resumes, such as how to write attention-grabbing summary statements, how to format work experience, and what skills to highlight. They may also offer tools for optimizing resumes for applicant tracking systems (ATS) - software used by many companies to screen resumes for keywords and qualifications before passing them on to hiring managers.

In addition to helping users create their resume, some resume builder applications also offer additional tools and resources to aid in the job search process. This can include tools for creating cover letters, searching and applying for jobs, and preparing for job interviews.

Overall, a resume builder application can be a valuable resource for anyone looking to create a polished and professional-looking resume. Whether you are a recent graduate or an experienced professional, a resume builder can help you create a document that accurately represents your skills, experience, and qualifications, and makes you stand out to potential employers.

However, a resume builder application is a software tool that helps individuals create and customize their resume. The tool typically includes features such as pre-written templates, drag-and-drop text boxes, and a variety of design options to choose from. The user inputs their personal and educational information, work history, skills, and other relevant information, and the application generates a polished and professional-looking resume. This type of tool can be especially useful for job seekers who are not experienced in creating resumes or who do not have access to professional design software [2].

In the paper “Usage of QR Codes in Web Based System for the Electronic Market Research” the author describes the usage of QR codes within a web-based platform designed for electronic market research and promotional endeavors. There are several ways to employ QR codes, and they give researchers the chance to conduct numerous studies that focus on respondents' responses or reactions. How to exhibit QR codes in a way that grabs consumers' attention is the biggest conundrum. A preliminary edition of the cross-platform web application was developed specifically for the purposes of this study in order to identify users of mobile devices and gather information from their scans. This essay examines the operation of the system and presents the results of the study. The research led to the selection of a new target audience, and based on the initial findings, guidelines were created for the second version of the web-based platform [3].

“New Implementation of QR Code and Imei on Android And Web-Based Student Presence Systems” as per this paper the author talks and explains about the presence system is a crucial element in the lecture process, and monitoring student attendance is essential for various aspects of lecture assessment. Conventionally, attendance has been recorded by having students sign their names. However, with the proliferation of telecommunications technology, smartphones,

specifically those running on the Android operating system, have become a popular tool for creating and using applications. Additionally, the Quick Response Code, or QR code, has emerged as a means to convey information quickly and effectively. Unlike traditional barcodes, QR codes can store both horizontal and vertical information. This research project aims to develop an Android-based presence system that utilizes QR codes. Students will use a QR code reader to scan a generated QR code and log their attendance [4].

In the paper “A Systematic Literature Review on QR Code Detection and Pre-processing” the author explains how QR codes have become a critical component in various technical solutions and are being utilized by millions of people worldwide every day. As QR code usage continues to surge, particularly for sensitive tasks like payment and ticketing, it is crucial to comprehend the technology's present state, its implementation, limitations, and future prospects. This paper aims to fulfil this purpose by analysing the latest developments in QR code detection and pre-processing technologies. The study also outlines the multi-step process of QR code recognition, with the goal of aiding organizations in optimally adopting the technology for their specific needs [5].

The author of “Hireability in The Wild: Analysis of Online Conversational Video Resumes” explains that Online social networking is transforming how employers hire new employees. Up until recently, resumes were one of the primary tools used to evaluate job applicants. A new kind of résumé has been made feasible by the popularity of online video platforms and the advancement of inexpensive sensors. Short video messages called "video resumes" are a way for job searchers to introduce themselves to prospective employers. Since they have not been studied from a behavioural perspective, online video resumes present an opportunity to study the formation of first impressions in an employment context at a scale never attempted before. 939 conversational English-speaking video resumes were gathered for our dataset from YouTube. The Amazon Mechanical Turk crowdsourcing platform was used to collect annotations of demographics, skills, and initial impressions. After that, basic demographics were looked at to figure out who uses video resumes to find work. The results showed that most applicants were young people looking for junior and internship positions. The inference and nonverbal cue extraction steps in our computational framework for predicting organizational first impressions were completely automated. Up to 27% of the variance that can be explained by extraversion and up to 20% for social and communication skills can be explained by automatic prediction of first impressions, according to the findings. The recruitment process for personnel is changing due to social media. Up until this point, resumes were one of the most commonly used tools for screening job applicants. A new kind of resume has been made possible by the popularity of online video platforms and inexpensive sensors. Short video messages in which job seekers present themselves to potential employers are called video resumes. Since they have not been studied from a behavioural perspective, online video resumes present an opportunity to study the formation of first impressions in an employment context at a scale never attempted before. 939 conversational English-speaking video resumes were gathered for our dataset from YouTube [6].

QR codes can be used in a web-based system for electronic market research, offering an efficient and convenient method for gathering data from consumers. QR codes can be easily scanned using a smartphone camera, eliminating the need for consumers to manually type in survey URLs or provide personal information. The collected data can then be automatically stored and analysed, reducing the time and resources required for data entry and analysis.

QR codes can be utilized in multiple ways in electronic market research. For example, QR codes can be placed on product packaging, advertising materials, or in-store displays to direct consumers to a survey or feedback form. This allows market researchers to round up real-time data on consumer behaviour and preferences, which can inform product development and marketing strategies.

Additionally, QR codes can be used to track consumer behaviour and preferences in real-time. For example, QR codes can be placed in physical locations, such as retail stores or public spaces, to track consumer foot traffic and gather data on consumer behaviour in those locations [7].

Another advantage of using QR codes in electronic market research is the increased level of interaction and engagement with consumers. QR codes can be designed in a visually appealing manner and can be integrated into marketing campaigns to drive consumer interest and participation in market research surveys. This can result in higher response rates and more representative data, compared to traditional methods of market research such as email surveys or phone interviews.

Additionally, QR codes offer a level of security and privacy for consumers. By scanning a QR code, consumers are directed to a secure and encrypted survey form, reducing the risk of data breaches or unauthorized access to personal information. The use of QR codes can also help to eliminate errors or inaccuracies that may occur with manual data entry, ensuring that the data collected is accurate and reliable [8].

In conclusion, the use of QR codes in electronic market research offers a number of benefits, including increased efficiency, interaction and engagement with consumers, and improved security and accuracy of data. By leveraging QR codes, market researchers can gather more representative and up-to-date information on consumer behaviour and preferences, which can inform product development and marketing strategies [9].

In the paper “Review on QR Code Analysis” the author claims that the design of two-dimensional matrix codes takes into account the need to store a large amount of information and the requirement for quick decryption using handheld devices such as smartphones. However, as QR codes are simply a square barcode with a unique pattern, there is a risk of security breaches when used to store sensitive information. Despite this, QR codes are becoming increasingly popular in various fields, such as marketing, security, and education, and their use is growing rapidly as more people become familiar with the technology. As the popularity of QR codes increases, it is important to address security concerns such as data leakage and alteration. This paper provides an analysis of QR code technology and its various applications, including the role of position-detection patterns and the functions of QR code encoder and decoder [10].

The paper “Usage of QR Codes in Promotion on Social Network” presents this paper describes a web-based project that was created to promote a company or brand through social media using QR codes. The system features a detection script that captures data from QR codes when they are scanned. The paper provides details about the completed project, including the testing results [11].



The analysis of a QR code happens in several steps:

1. Scanning: A smartphone camera is used to capture an image of the QR code.
2. Image Processing: The QR code reader app processes the image taken, identifies the QR code, and locates corners of the code.
3. Decoding: The QR code reader then decodes the data stored in the QR code by analysing the arrangement of black and white squares in the code.
4. Data extraction: The decoded data is then extracted and interpreted by the QR code reader. The information can be displayed in a user-friendly format, such as a website link or contact information.
5. Error Correction: QR codes have built-in error correction, which allows for some degree of damage or distortion to the code without affecting the ability to read the data. The QR code reader uses error correction algorithms to correct any errors that may have occurred during the scanning process [12].

III. SOFTWARE AND DESCRIPTION

A. Programming Languages:

PHP: PHP (Hypertext Preprocessor) is a server-side scripting language used for web development. It is widely used for creating dynamic web pages and can be embedded within HTML. Some of the key features of PHP include:

1. Dynamic content generation: PHP can be used to dynamically generate HTML pages based on user input or database information.
2. Database integration: PHP can interact with databases such as MySQL, making it easy to store and retrieve data.
3. Open-source: PHP is an open-source language, which means that the source code is freely available and can be modified to suit specific needs.

4. Cross-platform compatibility: PHP can run on a variety of operating systems, including Windows, macOS, and Linux, making it a versatile choice for web development.
5. Large community: The development of PHP is supported by a significant and engaged community of developers who actively contribute to its improvement and provide assistance through various means, including forums and documentation.
6. Easy to learn: PHP has a straightforward syntax and can be learned relatively quickly, making it a popular choice for beginner web developers.

The programming language PHP is intended for web development and operates on the server-side. It is open-source software and can work and install on various platforms such as Windows, Linux, Unix, and macOS. PHP is used to create dynamic web pages and can be embedded into HTML. Some of the key features of PHP include:

- Easy to learn and use
- Interacts with databases (such as MySQL)
- Supports various protocols like HTTP, FTP, and SMTP
- Dynamic content generation
- Can be used to create e-commerce websites, content management systems (CMS), and forums

MySQL: MySQL is a popular open-source relational database management system (RDBMS). It is widely used for storing and retrieving data for web applications. Some of the key features of MySQL include:

1. Scalability: MySQL can handle large amounts of data and can be easily scaled to meet the needs of growing businesses.
2. Relational database: MySQL uses a relational database model, which allows for easy storage and retrieval of data using tables and relationships between tables.
3. Open-source: MySQL is an open-source system, which means that the source code is freely available and can be modified to suit specific needs.
4. Cross-platform compatibility: MySQL can run on a variety of operating systems, including Windows, macOS, and Linux.
5. High performance: MySQL is designed to be fast and efficient, with a variety of optimization techniques used to ensure quick query processing.
6. Wide adoption: MySQL is widely used in the industry and has a large user community, making it a popular choice for businesses and organizations of all sizes.
7. Integration with other technologies: MySQL can be easily integrated with other technologies such as PHP, Java, and .NET, making it a flexible choice for web development.

JavaScript: JavaScript is a high-level, dynamic, and interpreted programming language used for building interactive and dynamic web pages. It is also used for server-side development with technologies like Node.js. Some of the key features of JavaScript include:

1. Dynamic interactivity: JavaScript is used to add dynamic interactivity to web pages, such as creating pop-up windows, drop-down menus, and form validation.
2. Cross-platform compatibility: JavaScript runs on all major browsers, making it a widely supported language for web development.
3. Object-oriented programming: JavaScript is an object-oriented programming language, which means that it supports encapsulation, inheritance, and polymorphism.
4. Asynchronous programming: JavaScript has support for asynchronous programming, which allows for multiple operations to run simultaneously without blocking other operations.
5. Large community: A vibrant community of developers supports the development of JavaScript and offers assistance through forums and documentation.

6. Integrates well with other technologies: JavaScript can be easily integrated with other web technologies, such as HTML and CSS, making it a popular choice for full-stack web development.
7. Easy to learn: JavaScript has a relatively simple syntax and can be learned quickly, making it a popular choice for beginner developers.

B. General Workflow:

1. Input user qualification in input fields of webpage: User will be able to add all his or her personal information here and based on those information given the resume will be created and the information includes: name, profession, work experience, skills and an introduction video which will be only one minute where the user has to introduce themselves.
2. Store user data into a database: After all the data and information of the user is given by the user in the input user section the information will be saved in database.
3. Retrieve the data to populate the webpage: After the data is given by the user in the user input section and it is saved in the database then the data will be displayed on the webpage in a form of a profile which can be later edit and add more information.
4. Generate QR code for the web page: After all the process and creation of the profile of the user then a specific QR code and a URL link will be generated for every user and will be on the profile of the user and user can share either the QR code or the URL link to any company or organization.

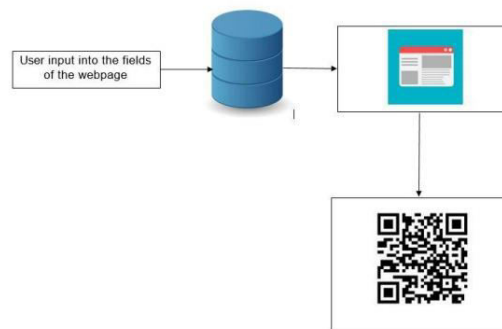


Fig.1.Diagram for General Workflow

IV. PROPOSED SYSTEM

In the Proposed system, we implement a system where data is retrieved from the database and used to populate the webpage showing qualifications of the individuals. Followed by a simple procedure to generate QR code of the page for maximum portability

Input: It is a first step of any system the users will input their credentials to create a session in the webpage. This will allow them to interact with the system.

USER:

- Register their credentials into the database
- Input Details: Users will input their details through the input that later on will be registered into the database.

SYSTEM

- The system then is composed of the relational database and the webpage users are interacting.
- It will take the details, store it in the database and retrieve the same to dynamically populate the page.

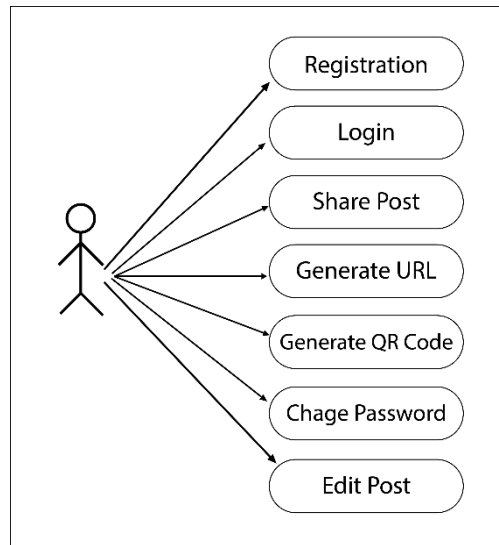


Fig.2.Use case Diagram

In the above use case diagram it is shown that how our proposed system will work:

First, the user will register him or her but giving all the necessary information including: name, profession, work experience, skills and an introduction video which will be only one minute where the user has to introduce themselves. After that they can login to their profiles and will be able to share post like their achievements and they can add to their achievements as the proposed system is like they can extended their information and it is editable. After all these processes a URL link and a QR code will be generated and user will be able to share their specific QR code to anyone they want to check their resume.

V. RESEARCH GAP

After going through different papers related to our research we get to the point that our idea is unique based on the features it is having. In the previous papers like in the paper “Resume designing using speech recognition system” the author has created a way for designing resume or CV and there the system will interact with the user through speech like the system will ask user his or her information and based on the data given in audio format the system will create a resume for the user.

In another paper “Hirability in The Wild: Analysis of Online Conversational Video Resumes” they explain about online video resume that the video resume will be short and the company will be able to examine how initial perceptions are developed in a professional setting for the purpose of hiring. So in this paper the author has introduced a new method of resume which will be in a short video format which will help the employer to analyze the employee for the first time.

Our approach is a little more advanced form of these ideas which I mentioned before. In our resume first there will be a section with the user where the user will provide all their information and they have to introduce them into a short video which will be less than one minute. After the resume is created the user is able to edit it and add more achievement or data to the resume without starting from the scratch. Like in previous researches there has never been such a development and facility like when a user has to edit his or her resume he or she has to start from the scratch and that is not in our project. Moreover, the user will be able to add more achievement and information to their resume without losing the previous data and all this data will be added to the profile. Finally, the result will be shown in a form of a webpage and a QR code and a URL link will be created for the user so the user can share his resume without even sending the whole resume.

In addition, the resume design which we proposed is portable. As mentioned before that a QR code and URL link will be generated for the user and he just needs to have that or even he can access his resume in the website from anywhere.

The reason we named our project “The digital resume in an extended format” is that users are able to extend the length of their resume with removing any of their old information.

VI. CONCLUSION

In this project we have tried to review existing project on resume building and QR code generation from a data. In this phase of the project we have identified the tools techniques we will be using in the development phase. From the pre-existing papers we came to know that data generation techniques are of many types. Hence we would like to gather more information on the way to make the project more effective and efficient to use.

The techniques and the general workflow of the project is mentioned above and we have decided the tools to use and integrate into our project.

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