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WEB BASED CLAIMS PROCESSING SYSTEM (W*CPS*)

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Abstract:

The main purpose of this study is to develop a web based system for a Company, University and many more that staff to make claims via electronic media. Since this system is Web-based, staff can make claims anywhere, anytime and at any locations. This method can overcome not only human errors but also more efficient, fast and accurate. Therefore, this system can also save time, effort, and administrative costs. In this study, Hypertext Preprocessor (PHP) has been chosen to make the calculation and also to generate reports. After the system has been developed, a test was conducted using forms that have been simulated manually. The purpose is to enable the researcher to make comparison with the ones made using the developed system in order to detect errors or flaws from the manual simulation in the system.

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Keywords: Computerized manual system, Online claims, PHP, System development, web application.

1. Introduction

The advents of computer technologies have revolutionized our life in many ways. It is no longer the monopoly of the elite class, but also has reached the masses. For the haves, they may possess their own personal computers, but for the have-nots there are various ways that they can feel the touch of the computer systems such as Internet and e-mails at designated places. For some, this is the time to make lucrative business of hiring them

according to hours.

A company which is having employee strength of at least 500. All the employees are provided medical reimbursement facility which means that the expenditure incurred by the employee for treatment is reimbursed by the company. For reimbursement, the employee needs to fill in a form detailing the treatment undertaken which includes the name & cost of medicines, laboratory tests, surgery. The form is duly signed by the employee and it will be sent to the concerned Claims Processing Department (CPD) by messenger for processing. CPD will process it and the order regarding the reimbursement is sent to the Cash counter (CC) where in the employee can come and receive the reimbursement amount.

To overcome problems like manual application forms can may miss during transit; form is prone to weariness due to which the company may not be able to read data in it after some years. The employees who claimed for medical reimbursement need to visit the CC from time to time enquiring about the status of their application. This results in enormous wastage of time of the employee. It is proposed to develop software titled Web Based Claims Processing System (WCPS) which is web based so that the employee can fill the form online and submit it so that the form is sent to CPD through Internet. At CPD, the form needs to be checked automatically by a program which will compute the amount that needs to be reimbursed to the employee for the treatment undertaken. Our web processing system is very user friendly and provides several facilities. Basically, we are developing our system on web browser; in future we will give a platform on android. This study is meant to develop a Web-based Claims system for staff who have to perform duties. Currently, all claims have to be made manually by filling up the claim forms by the claimants. This is a very tedious process and time consuming. It is not unusual for the claimants that they have to refer to the Treasury Circulars to check on their entitlements that they are unsure of each time they have to make claims.

2. Methodology

Iterative and Incremental development is any combination of both iterative design or iterative method and incremental build model for software development. The combination is of long standing and has been widely suggested for large development efforts.The relationship between iterations and increments is determined by the overall software development methodology and software development process. The exact number and nature of the particular incremental builds and what is iterated will be specific to each individual development effort. An iterative life cycle model does not attempt to start with a full specification of requirements. Instead, development begins by specifying and implementing just part of the software, which can then be reviewed in order to identify further requirements. This process is then repeated, producing a new version of the software for each cycle of the model.

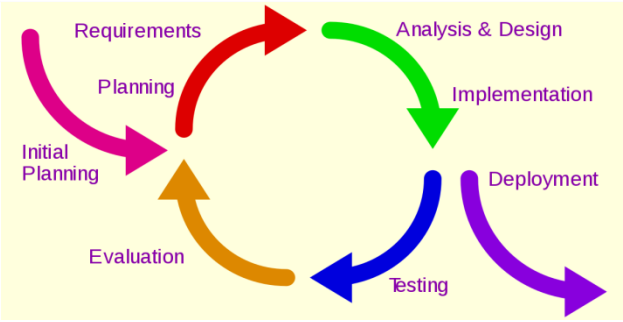

Fig. 1: Iterative Model

3. Literature Review

The development & growth of distributed system & exponential growth of internet and wide spread popularity of world wide web has created the possibility of education being imparted on much larger scale and has led to new avenues for distance education. Existing computer-based Evaluation mechanisms, such as Web Based Calming, rely principally on the client-server model. Most of the present-day Internet based evaluation is web-based.

This approach presents several advantages like provisionsfor instant solution; reduced overall timings etc. Such mechanisms usually do not scale well and also do not fully support features like: evaluation of subjective problems, delivery of dynamic content, and off-line working. These features are extremely desirable for distance evaluation and there is a need for alternate ways of designing such applications. This technique can be implemented in a distributed distance learning environment, which allows admin or employee to login from anywhere to a central server in a claiming centre while he wants medical reimbursement amount.

4. System Design

System development is the major part of this study and it is also the crux of this study. Prior to the commencement of its development, the clarity of user requirements must be first established. Therefore, the results of the analysis of user requirements and specifications must be given due considerations and top priority. This is prepared after detailed communications with the project team and customer. Proposed to develop Software titled Web Based Claims Processing System (WCPS) which is web based so that the employee can fill the form online and submit it so that the form is sent to CPD through Internet. At CPD, the form needs to be checked automatically by a program which will compute the amount that needs to be reimbursed to the employee for the treatment undertaken. Any excess amount claimed by the employee is ignored by the software. The amount computed will be routed to the e-mail account of the employee as well as to the Bank which holds the accounts of all the employees of the company. The bank will credit the amount to the account of the employee based on the mail.

4.1. Identify the processes of system

4.1.1) Home: This is the default page for the site. User of the system needs to login here; system will identify the employee type as per employee number and password provide by company.

4.1.2) Employee Dashboard: After successful login, system will display this page with profile of the employee, department, setting and no of claim is pending for the approving.

4.1.3) Apply Claim: Employee can apply new claim from here, employee must select claim type like medicine, surgery. Claim amount, snapshots of bill and remarks.

4.1.4) View Status: It shows the details of previous claim like claim type, amount, Date of apply, approval and rejection status, approval date.

4.1.5) Change Password: Employee can update his password from this link. Employee must type his old password to change the password with new password.

4.1.6) Approve Claim: This page list all the pending claim application, CPD employee can click on edit link and view the details and approved or reject the claim.

4.1.7) Login: Login page for the CPD Employee Dashboard.

4.1.8) Logout: By clicking this link user logged out from this site all user session reset to default value.

4.2. Requirement Analysis

The requirement analysis outlines the approach the development team will take to meet the goals of the project and provides the basis for proceeding to the planning phase. After identifying the business problem and defining the vision and scope, the team creates the solution concept that explains in general terms how the team intends to meet the requirements of the project.

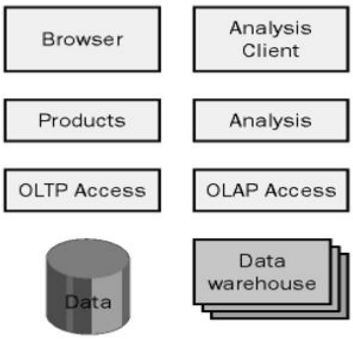

Fig. 2: Solution concepts of Web Based Claims Processing System (WCPS)

4.3. Identify the controls (for I/O & access), security needs, validation rules and codes

Malicious attackers use various methods to exploit system vulnerabilities to achieve their goals. Vulnerabilities are weak points or loopholes in security that an attacker exploits to gain access to an organization's network or to resources on the network. Some vulnerability, such as weak passwords are not the result of application or

software development design decisions. However, it is important for an organization to be aware of such security weaknesses to better protect its systems. Common vulnerabilities of applications include:

- Weak Password
- Internet Connections
- Unencrypted data transfer
- Buffer overruns
- SQL injection

5. Results

The system has been developed by applying an application and some of the Web programming languages along with the methodology stated in the previous chapter. The necessary tools have been utilized in order to make to system user-friendly so that users will not have difficulties in using the system. The research has embraced all the essential features to man oeuvre users and enable them to submit their claims.

The GUI as mentioned, which the researcher had used Microsoft FrontPage to design and develop all its screen layouts, colors, buttons etc. All the necessary tools had been used in building the system's view was done with simplicity in order not to cloud users' eyesight with too many colors or obscure screens. Once the system has been completed, a test was conducted in order to find out the validity and accuracy of the system.

6. CONCLUSIONS

At the end of our project, we are able to develop software to process claims (Apply and Approve claims) of all the employees. The system developed is able to meet all the basic requirements. It will provide the facility to the user so that they can record all the Claims of the employee in more efficient and proper way. The management of the information will be immensely benefited by the system, as it will automate the Claim Processing System which will reduce the workload. The security of the system is also one of the prime concerns. There is always a room for improvement in any software, however efficient the system may be. The important thing is that the system should be flexible enough for future modifications. Every effort has been made to cover all user requirements and make it user friendly. Web Based Claims Processing System (WCPS) which is web based so that the employee can fill the form online and submit it so that the form is sent to CPD through Internet. At CPD, the form needs to be checked automatically by a program which will compute the amount that needs to be reimbursed to the employee for the treatment undertaken. There were several unknown elements at the start of the project which meant that it had a certain element of risk. These included the author's lack of XML technology and CALL experience, the difficulty of obtaining information about application and the lack of knowledge of the Employee community's reaction to the project. However, these potential problems were successfully overcome. For reimbursement, the employee needs to fill in a form detailing the treatment undertaken which includes the name & cost of medicines, laboratory tests, surgery. The form is duly signed by

the employee and it will be sent to the concerned Claims Processing Department (CPD) by messenger for processing. CPD will process it and the order regarding the reimbursement is sent to the Cash counter (CC) where in the employee can come and receive the reimbursement amount. This could not have happened had the claims been processed by the system which is very much faster and more efficient than processing through the traditional manual method, hence the system saves a lot of their time. Thus, the major objectives among others that have been set at the beginning of this study have been met.

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