

School Management System

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Abstract— The Objective of Developing such a computerization system is to reduce the paper work and save time school management. There by increasing the efficiency and decreasing the workload. This project provides the information about student record, Faculty records, transportation facilities, fee details. School Management System is essential for teachers and students, which utilizes computer, also which reduce man power. School management system manages several student details like parent name, phone number, email- id, date of birth, class, sex etc. Student and faculty details uploaded by the admin. He will give username and passwords to the respective. Initially admin will login, login module. Later he is updating and deleting the student data.

Key words: School Management System

I. INTRODUCTION

Lucky Shikshan Sansthan Saray Khema Munshiganj Amethi Near Sanjay Gandhi Hospital . The school is recognized by U.P Govt . It is running since last three years from class I to VIII . This is under administrative control of smt. Bithan Mishra . At present the school management and its all procedures are totally manual based . It creates a lot of problems due to wrong entries or mistakes in totaling etc. This system avoid the mistakes through proper checks and validation control methods is checking of student record ,teachers schedule . I met personally to the principal and manager and discuss about the computerization of manual school management system.

II. REQUIREMENT SPECIFICATION

A. Hardware Requirement

1) Front-end Language

- HTML(Hyper Text Markup Language)
- CSS(Cascading Style Sheet)
- JavaScript (java script is a high level ,dynamic , un typed, and interpreted programming language)
 - Dreamweaver
 - Notepad++

2) Back-end Language

- PHP (Php is a server side scripting language designed for web development but also used as general purpose programming language)
- MYSQL (mysql is a database ,widely used for accessing querying , updating, and managing data in databases).

3) Software Specifications

- windows 7/windows 10(32 or 64 bit operating system)
- PHP
- MYSQL Server 2008
- WAMP(If you are uses windows then firstly download WAMP)

B. Requirement Analysis Specification:

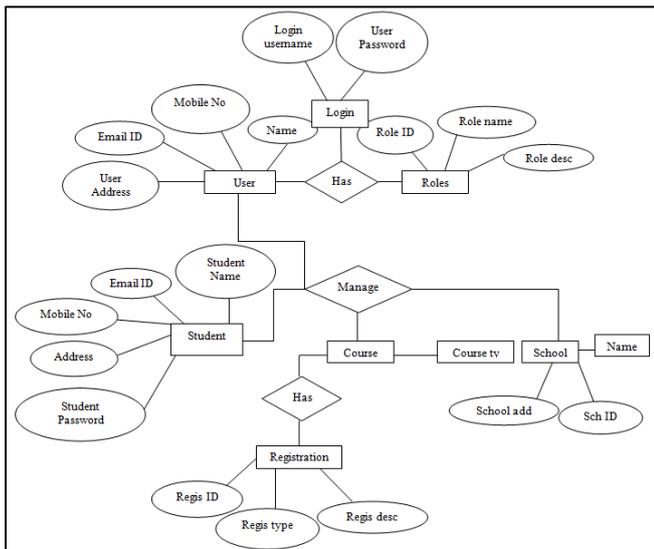
A Software Requirements Specification (SRS) is a document that describes the nature of a project, software or application. In simple word, SRS document is a manual of a project provided it is prepared before you kick-start a project/application. This document is also known by the names SRS report, software document. A software document is primarily prepared for a project, software or any kind of application. There are a set of guidelines to be followed while preparing the software requirement specification document. This includes the purpose, scope, functional and non-functional requirements, software and hardware requirements of the project. In addition to this, it also contains the information about environmental conditions required, safety and security requirements, software quality attributes of the project etc. A software requirement specification document describes the intended purpose, requirements and nature of software to be developed. It also includes the yield and cost off the software.

C. Purpose of the system:

A school management system is any website built, designed, and maintained by or for a school. Many school websites share certain characteristics, and some educators have developed guidelines to help schools create the best and most useful websites they can.

- Displaying student projects
- Providing information on homework and current class assignments
- Directing visitors to other resources on the web
- Providing a forum for teachers, administrators, students, and parents to exchange information such as news and calendars of events
- Introducing people who don't know much about the school (such as parent or students who are considering moving into the district, community members who don't have children, and teachers seeking employment) to its current event general culture
- Showing that a school is excellent with regard to sciences and new media in comparison to competitive schools
- Displaying school curriculum and courses

III. ER- DIAGRAM

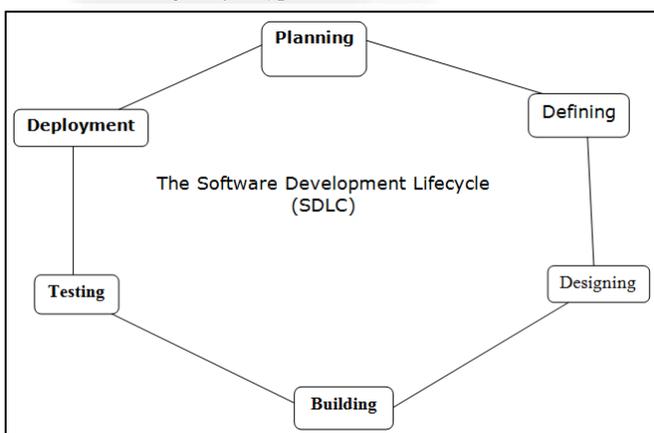


A. Software Development Life Cycle:

Software Development Life Cycle (SDLC) is a process used by the software industry to design, develop and test high quality software. The SDLC aims to produce high-quality software that meets or exceeds customer expectations, reaches completion within times and cost estimates.

- SDLC is the acronym of Software Development Life Cycle.
- It is also called as Software Development Process.
- SDLC is a framework defining tasks performed at each step in the software development process.
- ISO/IEC 12207 is an international standard for software life-cycle processes. It aims to be the standard that defines all the tasks required for developing and maintaining software.

B. Various Stages of a typical SDLC:



1) Stage 1: Planning and Requirement Analysis

Requirement analysis is the most important and fundamental stage in SDLC. It is performed by the senior members of the team with inputs from the customer, the sales department, market surveys and domain experts in the industry. This information is then used to plan the basic project approach and to conduct product feasibility study in the economical, operational and technical areas. Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibility study is to

define the various technical approaches that can be followed to implement the successfully with minimum risks.

2) Stage 2: Defining Requirements

Once the requirement analysis is done the next step is to clearly define and document the product requirements and get them approved from the customer or the market analysts. This is done through an SRS (Software Requirement Specification) document which consists of all the product requirements to be designed and developed during the project life cycle.

3) Stage 3: Designing the Product Achitecture

SRS is the reference for product architects to come out with the best architecture for the product to be developed. Based on the requirements specified in SRS, usually more than one design approach for the product architecture is proposed and documented in a DDS - Design Document Specification. This DDS is reviewed by all the important stakeholders and based on various parameters as risk assessment, product robustness, design modularity, budget and time constraints, the best design approach is selected for the product. A design approach clearly defines all the architectural modules of the product along with its communication and data flow representation with the external and third party modules (if any). The internal design of all the modules of the proposed architecture should be clearly defined with the minutest of the details in DDS.

4) Stage 4: Building or Developing the Product

In this stage of SDLC the actual development starts and the product is built. The programming code is generated as per DDS during this stage. If the design is performed in a detailed and organized manner, code generation can be accomplished without much hassle. Developers must follow the coding guidelines defined by their organization and programming tools like compilers, interpreters, debuggers, etc. are used to generate the code. Different high level programming languages such as C, C++, Pascal, Java and PHP are used for coding. The programming language is chosen with respect to the type of software being developed. SDLC 3

5) Stage 5: Testing the Product

This stage is usually a subset of all the stages as in the modern SDLC models, the testing activities are mostly involved in all the stages of SDLC. However, this stage refers to the testing only stage of the product where product defects are reported, tracked, fixed and retested, until the product reaches the quality standards defined in the SRS.

6) Stage 6: Deployment in the Market and Maintenance

Once the product is tested and ready to be deployed it is released formally in the appropriate market. Sometimes product deployment happens in stages as per the business strategy of that organization. The product may first be released in a limited segment and tested in the real business environment .Then based on the feedback, the product may be released as it is or with suggested enhancements in the targeting market segment. After the product is released in the market, its maintenance is done for the existing customer base.

C. SDLC Waterfall Model

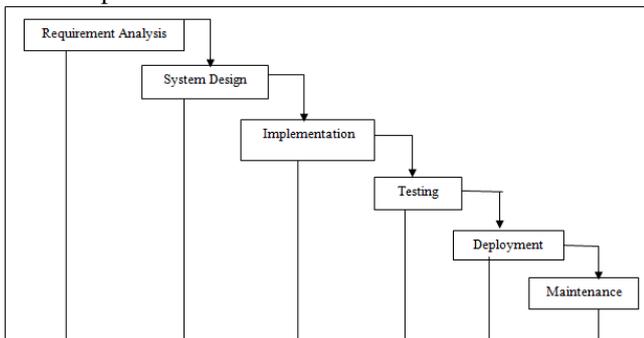
The Waterfall Model was the first Process Model to be introduced. It is also referred to as a linear-sequential life cycle model. It is very simple to understand and use. In a

waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases. The Waterfall model is the earliest SDLC approach that was used for software development. The waterfall Model illustrates the software development process in a linear sequential flow. This means that any phase in the development process begins only if the previous phase is complete. In this waterfall model, the phases do not overlap.

D. Waterfall Model –Design

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In this Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.

The following illustration is a representation of the different phases of the Waterfall Model.



1) Requirement Gathering and analysis:

All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

2) System Design:

The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.

3) Implementation:

With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.

4) Integration and Testing:

All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

5) Deployment of system:

Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.

6) Maintenance:

There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment. All these phases are cascaded to each other in which progress is seen as flowing steadily downwards (like a waterfall) through the phases. The next

phase is started only after the defined set of goals are achieved for previous phase and it is signed off, so the name "Waterfall Model". In this model, phases do not overlap.

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