PROJECT PROPOSAL (SYNOPSIS)

ON

**ONLINE STUDENT PORTAL**

MASTER OF COMPUTER APPLICATION

**(MCSP-060)**

**Submitted by**

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Title of the Project

**ONLINE STUDENT PORTAL**

**INTRODUCTION**

Online student portal is a service where student of o university can get logged into the system and check his documents uploaded by university to his associated account.

Online student portal is a paperless portal where user can see his/her document are uploaded by university such ass documented result with signed and stamps. This is a portal where admin and student can access at the same time. This portal can be used to publish result of the student such as uploading degree of the student.

In online student portal a admin can access with his login credentials and get into his dashboard where admin can add students and add documents to the particular student.

**Features of Online Student Portal**

* Paperless: completely electronic service
* Eliminates Document forgery
* Low Cost
* Compliance with IT act
* Secure
* Machine friendly
* User friendly

This online student portal is created to manage the student’s documents online which is uploaded by an admin which is manages by university. This is very user friendly where admin can see all students in this portal with their images and can add new students to this portal where a password is generated for the user. And that password can be used for student login that will be given to the student manually because of security reason.

**OBJECTIVE OF THE PROJECT**

The aim of the project i.e. online student portal is all about student portal system from anywhere and anytime. The extra feature involved is the notification provided to the student via student portal. Our application is that it is secured in a way that only registered student can enter to the portal which have valid email and password i.e. generated by the admin.

**Main objectives are:**

* The Online student portal is meant to keep the security of the admin and the student associated with the portal.
* Student can see his/her documents
* Student can see his/her profile
* Admin can create student
* Admin can see student profile
* Admin can upload document associated to the student
* It is cost effective
* It has ease of use along with complete reference
* It is highly secured and less time consuming.
* Up to date records of the student maintained by Admin.
* Improvement of efficiency and effectiveness of the system by providing online facility to the organization and the students.

**Other objectives are:**

* User friendly interface
* A central database holds the key to the system.
* All forms are HTML template driven.
* Integration among all functional area.
* The availability of the information is easy.
* It automates the redundant tasks.
* It will save time and money.

**TOOLS/PLATFORM**

**REACTJS:** React is a JavaScript library for building user interfaces. It is maintained by Facebook and a community of individual developers and companies. React can be used as a base in the development of single-page or mobile applications.

**HTML:** Hypertext Markup Language is the standard markup language for creating web pages and web applications. With Cascading Style Sheets and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.

**CSS:** Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

**JAVASCRIPT:** JavaScript, often abbreviated as JS, is a high-level, interpreted programming language. It is a language which is also characterized as dynamic, weakly typed, prototype-based and multi-paradigm. Alongside HTML and CSS, JavaScript is one of the three core technologies of the World Wide Web.

**NODEJS:** Node.js is an open-source, cross-platform JavaScript run-time environment that executes JavaScript code outside of a browser.

**APACHE:** The Apache HTTP Server, colloquially called Apache, is a free and open-source cross-platform web server, released under the terms of Apache License 2.0. Apache is developed and maintained by an open community of developers under the auspices of the Apache Software Foundation.

**MONGODB:** MongoDB is a free and open-source cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with schemata**.**

**HARDWARE AND SOFWARE**

**SOFTWARE REQUIREMENT SPECIFICATION**

A set of programs associated with the operation of a computer is called software. Software is the part of the computer system, which enables the user to interact with several physical hardware devices.

The minimum software requirement specifications for developing this project as follows:

* **Operating system :** Windows 7 and above
* **Presentation Layer :** JavaScript
* **Database :** MongoDB
* **Documentation Tool :** Ms Office

**HARDWARE REQUIREMENT SPECIFICATION**

The collection of internal electronic circuit and external physical devices used in building a computer is called the hardware. The minimum hardware requirement specification for developing this project is as follows:

* **Processor :** Processor with minimum speed of 1.8 GHz
* **RAM :** 4 GB or more
* **Hard-disk :** 40GB
* **Monitor :** Standard color monitor

**PROBLEM DEFINATION**

* The current manual system has a lot paper work and it does not deal with old and new student.
* To maintain the records of sale and services manually, is a time consuming job.
* With the increase data in database, it will become a massive job to maintain the database.
* Requirement of large quantities of file cabinets which are huge and require quite a bit of space in the office, which can be used for strong records of previous details.
* The retrieval of records or previously registered students will be tedious jobs.
* Lack of security of the records, anyone disarrange the records of the system.
* If someone wants to check the details of the students they need to find all the documents, it will take time.

**PROBLEM**

* **Problem of Reliability:**  Current system is not reliable. It seems to vary in quality from one month to the next. Sometimes it gives good output, but sometimes the output is worst.
* **Problem of Accuracy:** There are too many mistakes in reports.
* **Problem of Timelines:** In the current system the report and output produced is mostly late and in most of the cases it is useless because it is not on time.
* **Problem of Economy:** The current system is very costly. We have to spend lots of money to keep the system up and going, but still not get the desired result.
* **Problem of Capacity:** The current system is suffering from problem of capacity also. The staff for organization is very less and the workload is too much. Few cannot handle all the work.

**ANALYSIS**

**DATA FLOW DIAGRAM**

**Context Level DFD**

Read the Data

Enters the Data

Student

Admin

**First Level DFD for Admin**

Admin

Login

Add Student Data

Creates Student

Student

Student Docs

Student

Student Detail

**First Level DFD for Student**

Student

Login

See Details

Student can see details and download Documents

Student

Details

**Second Level DFD for Admin**

Student

Admin

Login

**Second level DFD for students**

Student

Student

**ER-Diagram**

Has

Has

Student

Student Portal System

Admin

**DATABASE AND TABLES**

**Admin Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Type** | **Data Type** | **Size** | **Constraints** |
| ID | Int | 10 | Primary Key |
| Username | Varchar | 20 | Not Null |
| Password | Varchar | 20 | Not Null |

**Student Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Type** | **Data Type** | **Size** | **Constraints** |
| ID | Int | 10 | Primary Key |
| Username | Varchar | 20 | Not Null |
| Password | Varchar | 20 | Not Null |
| Class | Varchar | 20 | Not Null |
| Roll Number | Varchar | 20 | Not Null |
| Document | Varchar | 120 |  |

**COMPLETE STRUCTURE OF THE PROGRAM**

**Number of Modules and their description**

* Admin Module
  + Create Student
  + Add Student Documents
* Student Module
  + See Details
  + Download Documents

**Process Logic of each module**

**Module 1: Admin Login**

In this module an admin can login to his account via a username and password provided to him, this username and password can only be generated once by the developer of the software.

**Module 2: Admin Dashboard**

In this module, Admin see his dashboard where he can perform particular operations such as: First, He can add student to the portal online and generate a unique password for the user so that user can get access to the portal as well.

Secondly, Admin can see all the students in this module in a list such as his name, image of the student, roll number and a password which is generated by the admin while adding the user.

Third, Admin can upload document to the particular user by which student can get his document on his own portal and no other user can access that documents.

**Module 3: Student Login**

In this module , student can get login in this module and see his dashboard, the username and password is given by admin of the portal.

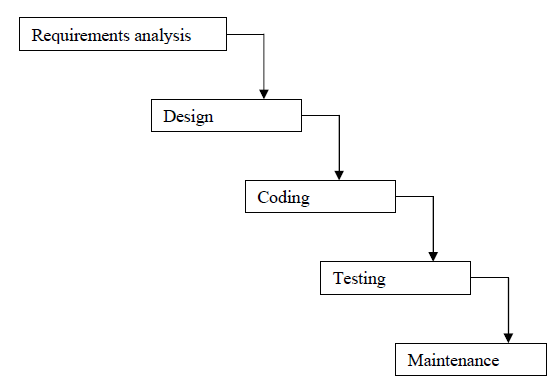
**Module 4: Student Dashboard**

In this module, student can see his details and download his documents.

**IMPLEMENTATION METHODOLOGY**

**WATERFALL MODEL**

It is the simplest, oldest and most widely used process model. In this model each phase of the life cycle is completed before the start of a new phase. It is actually the first engineering approach of software development.



**OVERALL NETWORK ARCHITECTURE**

Network Architecture is the complete framework of an organization's computer network. The diagram of the network architecture provides a full picture of the established network with detailed view of all the resources accessible. It includes hardware components used for communication, cabling and device types, network layout and topologies, physical and wireless connections, implemented areas and future plans. In addition, the software rules and protocols also constitute to the network architecture. This architecture is always designed by a network manager/administrator with coordination of network engineers and other design engineers.

**SECURITY MECHANISM**

**Type of testing we use in our Project**

Here we just mentioned that how the testing is related to this software and in which way we have test the software? In our project we have used 5 types of testing these are listed below-

* **Unit Testing**

Unit testing where individual program units or object classes are tested. Here by using this testing we have focused on testing the functionality of methods.

* **Module Testing**

Where this is the combination of unit program is called module. Here we tested the unit program (5-6 programs) is where the module programs have dependency.

* **Sub-System Testing**

Then we combined some module for the Preliminary System Testing in our Project.

* **System Testing**

Where it is the combination of two or more sub-system and then it is tested. Here we tested the Entire system as per the requirements.

**FUTURE SCOPE**

The Banking is for the manage process can be further developed into a separate, automated system with the following enhancements:

* Organization can customize this portal via adding a notification feature for the student where a admin will post a notification and this will show to the user.
* Add student reset password feature to the portal via email verification.
* Requesting module for the student where student can request something to the admin.
* Feedback module where a student can give his/her feedback.

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