

SE PROJECT REPORT

PROJECT TITLE: General Purpose College Website



**sUBMITTED BY:**

ritik manav - 2102051

harshita gola - 2102024

Aryan rajput – 2102011

[Source Code [Ctrl + Click]](https://github.com/aryn-rjpt/SE-project)

[Live Website (Static) [Ctrl + CLICK]](http://arynrjpt.pythonanywhere.com/)

**under the guidance of:**

PROF. SANGEETA SRIVASTAVA

Department of computer science

bhaskaracharya college of applied sciences

**INDEX**

|  |  |  |
| --- | --- | --- |
|  | Topic | Page Number |
| 1. | **Introduction** |  |
| 1.1 | Purpose | 2 |
| 1.2 | Project Scope | 3 |
| 1.3 | References | 4 |
| 1.4 | Motivation | 5 |
| 1.5 | Timeline | 6 |
| 1.6 | Feasibility Study | 7 |
| 1.7 | SDLC Model | 8 |
| 2. | **Overall Description** |  |
| 2.1 | Product Perspective | 9 |
| 2.2 | Product Feature | 10 |
| 2.3 | Data flow diagrams | 11 |
| 2.4 | Use Case | 13 |
| 2.5 | Use Case Diagram | 14 |
| 2.6 | Context Diagram | 15 |
| 2.7 | Activity Diagram | 16 |
| 2.8 | Mind Map | 17 |
| 3. | **Features** |  |
| 3.1 | Functional Requirements | 18 |
| 3.2 | Non-Functional Requirements | 19 |
| 3.3 | Platform | 20 |

**Problem Statement**

**Ideal**

* A college website through which students can access different information, resources, opportunities, and notifications in mere seconds.

**Reality**

* Students find it very difficult to navigate through website because of its atrocious user interface and unfriendly nature.

**Consequences**

* Users waste approximately two minutes per day to find the required thing on the website. With even a thousand users, it amounts to 1000\*2 = 2000 minutes of productivity wasted.
* Visitor count has reached to 100k, yet the satisfaction rate has been on decline.

**Proposal**

* To add different new features with quick accessibility all over the website.
* Have students and teachers’ collaboration to evaluate potential solutions for a multi-purpose website.

Process Model

Evolutionary Model

a. The requirements are quite well defined for the project.

b. There may be a compelling need to provide a limited set of software functionality to users quickly and then refine and expand on that functionality in later software releases with feedback from each release.

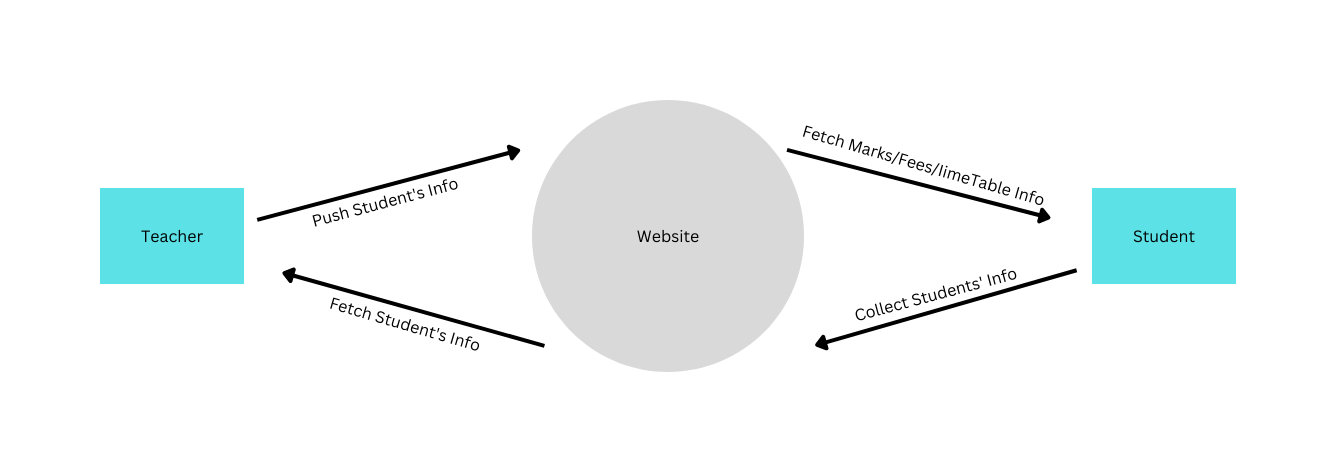
c. The basic functionalities such as Home Page and Sub-Page Layouts can be delivered in the first release, adding other functionalities such as administration and teacher’s login and functionality for fee, scholarship and time table can be delivered in the next release. Other remaining functionalities can be delivered in later releases.

d. In this model, the process is repeated following the delivery of each increment until the complete product is produced. Hence, this model is more scalable and new functionalities can be included at any stage.

Context Diagram

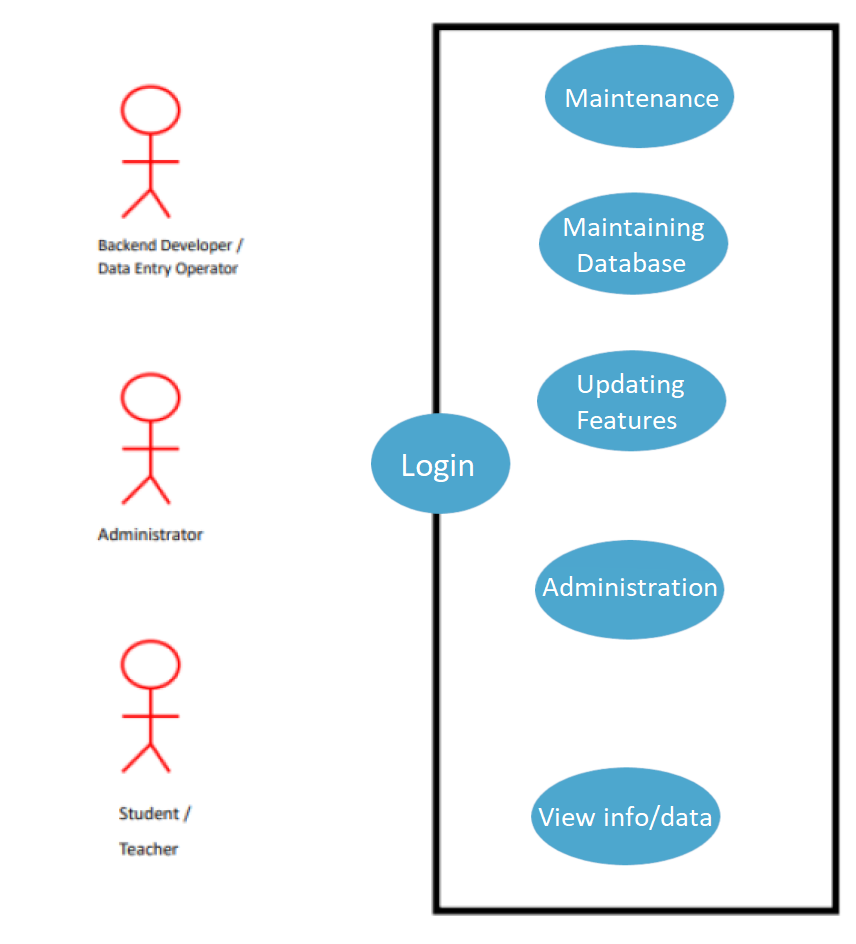
**The following people will be interacting with the website:**

1. Teacher
2. Student





**USE CASE DIAGRAM**

****

Use Cases

Use Case 1: Admissions

Actors: Prospective Students, Admissions Office

Preconditions:

* The prospective student has access to the college website.
* The admissions office has posted information about the admission process, requirements, deadlines, and application materials on the college website.

Basic Flow:

1. The prospective student visits the college website.
2. The prospective student navigates to the admissions page.
3. The prospective student reads the information provided on the admissions page.
4. The prospective student completes the online application form and submits it.
5. The admissions office reviews the application and makes a decision.
6. The admissions office notifies the prospective student of the decision.

Alternate Flow:

* If the prospective student encounters technical difficulties while completing the online application form, they can contact the admissions office for assistance.

Use Case 2: Course Registration

Actors: Students, Registrar's Office

Preconditions:

* The student has access to the college website.
* The registrar's office has posted the course offerings, schedules, and registration deadlines on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the registration page.
3. The student searches for courses by subject, time, and instructor.
4. The student selects the desired courses and adds them to their schedule.
5. The student completes the online registration form and submits it.
6. The registrar's office processes the registration and updates the student's schedule.

Alternate Flow:

* If a course is full, the student can add themselves to the waitlist for that course.

Use Case 3: Academic Advising

Actors: Students, Academic Advisors

Preconditions:

* The student has access to the college website.
* The academic advisors have posted their availability, contact information, and advising resources on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the advising page.
3. The student schedules an appointment with their academic advisor.
4. The academic advisor and student meet to discuss academic progress, goals, and resources.
5. The academic advisor updates the student's academic record and provides recommendations.

Alternate Flow:

* If the student has a question or concern outside of their scheduled advising appointment, they can send a message to their academic advisor through the college website.

Use Case 4: Student Services

Actors: Students, Student Services Office

Preconditions:

* The student has access to the college website.
* The student services office has posted information about housing, career services, health services, and student activities on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the student services page.
3. The student searches for information about housing, career services, health services, or student activities.
4. The student reviews the information provided.
5. The student contacts the appropriate office for additional assistance or to request services.

Alternate Flow:

* If the student has a complaint or suggestion about a student service, they can submit a feedback form through the college website.

Use Case 5: Financial Aid

Actors: Students, Financial Aid Office

Preconditions:

* The student has access to the college website.
* The financial aid office has posted information about financial aid, scholarships, grants, and loans on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the financial aid page.
3. The student searches for information about financial aid, scholarships, grants, or loans.
4. The student completes the online financial aid application and submits it.
5. The financial aid office reviews the application and awards financial aid to the student.
6. The financial aid office updates the student's financial aid information on the college website.

Alternate Flow:

* If the student has questions or concerns about their financial aid package, they can contact the financial aid office for assistance.

Use Case 6: Faculty Directory

Actors: Students, Faculty

Preconditions:

* The student has access to the college website.
* The college has posted a directory of faculty members and their contact information on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the faculty directory page.
3. The student searches for a faculty member by name, department, or area of expertise.
4. The student reviews the faculty member's profile and contact information.
5. The student contacts the faculty member for assistance or to request a meeting.

Alternate Flow:

* If a faculty member's contact information is incorrect or outdated, the student can submit a request to update the information through the college website.

Use Case 7: Library Resources

Actors: Students, Librarians

Preconditions:

* The student has access to the college website.
* The college has posted information about library resources, services, and hours on the college website.

Basic Flow:

1. The student visits the college website.
2. The student navigates to the library page.
3. The student searches for books, articles, or other materials using the online catalog.
4. The student reviews the results and selects the desired materials.
5. The student checks out the materials online or in person.
6. The student contacts a librarian for assistance or to request interlibrary loan services.

Alternate Flow:

* If the student encounters technical difficulties while searching for materials or checking out materials, they can contact the library for assistance.

Use Case 8: Campus Map and Directions

Actors: Students, Visitors

Preconditions:

* The student or visitor has access to the college website.
* The college has posted a campus map and directions on the college website.

Basic Flow:

1. The student or visitor visits the college website.
2. The student or visitor navigates to the campus map and directions page.
3. The student or visitor reviews the campus map and directions.
4. The student or visitor navigates to the desired location on campus.

Alternate Flow:

* If the student or visitor encounters difficulty finding their way on campus, they can contact the campus security office for assistance.

Use Case 9: News and Events

Actors: Students, Faculty, Staff, Public

Preconditions:

* The student, faculty, staff, or public has access to the college website.
* The college has posted news and events on the college website.

Basic Flow:

1. The student, faculty, staff, or public visits the college website.
2. The student, faculty, staff, or public navigates to the news and events page.
3. The student, faculty, staff, or public reviews the latest news and events.
4. The student, faculty, staff, or public attends or participates in a college event.

Alternate Flow:

* If the student, faculty, staff, or public has a news or event item to share, they can submit it for consideration through the college website.

Use Case 10: Alumni Relations

Actors: Alumni, Alumni Relations Office

Preconditions:

* The alumni has access to the college website.
* The alumni relations office has posted information about alumni events, news, and services on the college website.

Basic Flow:

1. The alumni visits the college website.
2. The alumni navigates to the alumni relations page.
3. The alumni reviews the latest alumni news and events.
4. The alumni contacts the alumni relations office for assistance or to request services.

Alternate Flow:

* If the alumni wants to give back to the college, they can make a donation online through the college website.

Software Requirement Specification

Software Requirements Specification for College Website

1. Introduction The College Website is an online platform that provides a variety of services and information to students, faculty, staff, alumni, and the public. This Software Requirements Specification (SRS) document outlines the functional and non-functional requirements of the College Website.
2. Functional Requirements

2.1 User Management The website should have a user management system that allows users to create and manage their accounts. The system should include the following features:

* User registration
* Login and logout
* Password reset
* Profile management

2.2 Course Catalog The website should provide a course catalog that includes the following features:

* Course search
* Course descriptions
* Course schedules
* Course prerequisites
* Course availability

2.3 Class Registration The website should allow students to register for classes. The system should include the following features:

* Class search
* Class registration
* Class schedule management
* Waitlist management

2.4 Financial Aid The website should provide information about financial aid, including the following features:

* Financial aid eligibility
* Types of financial aid available
* Financial aid application process
* Financial aid status check

2.5 Faculty Directory The website should provide a directory of faculty members that includes the following features:

* Faculty search
* Faculty profile and contact information
* Faculty areas of expertise
* Faculty office hours

2.6 Library Resources The website should provide access to library resources, including the following features:

* Online catalog search
* Book checkout
* Article search and retrieval
* Interlibrary loan request

2.7 Campus Map and Directions The website should provide a campus map and directions to campus, including the following features:

* Campus map
* Building locations and descriptions
* Directions to campus
* Parking information

2.8 News and Events The website should provide information about college news and events, including the following features:

* News articles
* Event calendars
* Event registration
* Event reminders

2.9 Alumni Relations The website should provide information and services for alumni, including the following features:

* Alumni news and events
* Alumni directory
* Alumni donations
* Alumni benefits

2.10 Student Organizations The website should provide information about student organizations, including the following features:

* Student organization search
* Student organization descriptions
* Student organization events and activities
* Student organization contact information

1. Non-Functional Requirements

3.1 Security The website should have security features that protect user data and prevent unauthorized access. The security features should include:

* SSL encryption
* Firewall protection
* User authentication
* Password policies

3.2 Performance The website should have performance features that ensure fast and reliable access to information and services. The performance features should include:

* Scalability
* Load balancing
* Caching
* Response time optimization

3.3 Usability The website should have usability features that make it easy for users to find information and use services. The usability features should include:

* Intuitive user interface
* Accessibility for users with disabilities
* Consistent design
* Help and support resources

1. Conclusion This Software Requirements Specification document outlines the functional and non-functional requirements for the College Website. The requirements are intended to ensure that the website provides a high-quality user experience and meets the needs of students, faculty, staff, alumni, and the public.