
Problems and Requirements

Problem Statement:

Computer Science and business systems is a relatively new branch in our college. The students of our branch (irrespective of year) face certain issues:

1. Lack of resources to understand the new subjects (Like notes of seniors)
2. Few to none, previous year papers available to practice and get an idea about the exam.

Also, college students often miss crucial deadlines of assignments and projects due to the lack of accurate and on time digital notification. For going to classes(online/offline), students have to keep checking their time table, which could be avoided if there was a platform which would show them messages/notification of upcoming class, the designated lecture hall, subject name and class link (In case of online class) all at once 15-20 mins before the class. Also, often students face certain college related issues and don't know who to contact or where to write their grievances or take advice. A chat bot to redirect students to the right help could be a good solution. To address these major problems and to add many more features, we could design a platform.

Objective:

1. Users can choose among different years of study and various subjects and topics so that they do not have to look on multiple sites for the required resources.
2. Considering this pandemic situation, users can interact with their respective teachers and can also get answers to frequently asked questions regarding the branch and college through the chatbot provided on the website.
3. User can also share and upload useful resources through a different portal on the website for the well-being of others.

Functional Requirements:

1. **Registration:** If the user wants to use the resources, he/she must be registered; the unregistered users can't access the resources.
2. **Login:** The user who logs into system must have a valid user ID and password. There would be two kinds of login, admin and user login.
3. **Display the notes/previous year paper:** The user must be in the position to choose among various subjects and years.
4. **Chat bot:** The user can put in his/her doubts in the said chatbot and these doubts will be directed to the respective faculty to solve and clear out later.
5. **E-mail notifications:** The user will get notifications about all the classes, quizzes and assignment deadlines so that students can manage their time accordingly.
6. **QR code:** This feature will be used for issue and return of books. A QR code will be generated which can be scanned by the student to validate the issue of the book. This will eliminate the tedious responsibility of the librarian of issuing books to each student separately.
7. **Logout:** The user can log out from the website after accessing the required resources.

Non-functional requirement:

1. **Responsiveness:** The system running on one platform should be converted easily to run on another platform.
2. **Reliability:** Reliability should be good, i.e., the ability of the system to behave consistently in the manner accepted by the user when operating in the environment for which the system was intended.
3. **Availability:** The system should be always available, which means that the user can access the system using a web browser, limited only by the downtime of the server on which the system is running.
4. **Maintainability:** The commercial database should be used to maintain the database, and the application server should be responsible for the application.
5. **Security:** Secure access to confidential data such as customer information.

6. **User friendly:** Website must be user-friendly so that it is easy for the customer to use it.

7. **Performance:** The performance of the website should be fast.

8. **Efficient:** Website must be efficient so that it does not get stuck during heavy.

Mode of requirement gathering:

Brainstorming: The team members held a brainstorming session where the idea and requirements were developed considering the time limit for the project. Members asked questions and presented ideas, and a thorough discussion was held on the solutions to these problems and the ideas proposed.

Some of the questions which were put forward were:

1. How will the user be able to use the software with their unique username and password?
2. Will the software be able to record user's name and password?
3. Where will the user login details be stored?
4. What all features would be beneficial to the users?

Interview: We interviewed a few students from the CSBS Branch and took into consideration, the current problems they are facing and we developed our idea based on these points to solve their issues.

One of the most important question put forth and its answer was:

Q. What problems are you facing right now, being a student of CSBS Branch?

A. - There is a lack of resources to study from during exams.

- There are very less on-time notifications for upcoming assignments.

- Being a new branch, it is tough to get more info on future prospectus, courses etc and also knowing who to contact for the appropriate doubt.

Taking these points into consideration, we have designed different features on our website.

Submitted By:

Brogrammers

Team 4 from CSBS3

- Aniket Sahran (102018065)
- Arpit Taneja (102018066)
- Divija (102018056)
- Surabhi Mishra (102018051)