



BANNARI AMMAN
INSTITUTE OF TECHNOLOGY
Autonomous Institution, Accredited by NAAC With 'A' Grade

Software Requirement Specification for Special Lab Portal - Overall

Name: Monisha M

Roll No: 7376221EI127

Project Title: Special Lab Portal – Overall

Project Id: 14

Seat No :374

Technical Components:

| Component | Tech stack |
|-----------|----------------------|
| Backend | Node js & express js |
| Frontend | Vue js |
| Database | Mongo db |
| API | REST Ful API |

Problem Statement:

Student of the Special Lab are admitted through an interview process. These members are required to meet the targets set by the responsible authority. The development of products must adhere to industry standards and undergo review. Any transfers within the lab must be communicated to both the relevant student and the supervisor. Student accomplishments will be showcased on the portal.

Phase Notes:

Stage 1 Planning and Requirement gathering.

Stage 2 Design and Prototyping.

Stage 3 DB Designing.

Stage 4 Backend Implementation.

Stage 5 Testing & Implementation.

PROJECT-FLOW:

Purpose:

The web platform's goal is to make special lab registration and interviews to allocate special lab more efficient. Its goal is to make the procedure fair, transparent, and effective. By offering a centralized system, it makes communication easier, guarantees fair lab allocations, and permits flexibility while maintaining stability.

Scope:

Students can register for special labs and schedule interviews more easily with this platform. User authentication, faculty and student dashboards, scheduling for interviews for special lab allocation, wildcard entry, notifications, allocation academic slots, and security measures are all included. Maintaining fairness and transparency, improving communication, and streamlining procedures are the objectives.

Business Context:

The web platform provides an efficient way to handle interviews and special lab allocations. It guarantees compliance, improves productivity, enhances user experience, and offers relevant information. Ultimately, by simplifying procedures and promoting modern technology to the right students.

Consideration:

- All users possess active Google accounts for authentication.
- Users have regular access to internet-enabled devices.

Dependencies:

- Secure authentication systems
- Integration with databases for storing user data
- Notification services for timely communication

User personas:

- **Student:** As a student, I want to register for a special lab that aligns with her interests and career goals. The students hope to secure a position through a successful interview process.
- **Faculty member:** As a faculty member, I want user-friendly platform to handle the administrative tasks associated with special lab allocations, and select the most suitable candidates for each lab.

Functional Requirements:

- Allow student and faculty to login.
- Provide student and faculty dashboards to view respective achievements.
- Offer students to review special lab profiles, manage registrations, and schedule their interviews.
- Support wildcard entry applications and interview by faculty.
- Display academic slot allocation.
- Enable change of special lab once in a semester.
- Implement a notification system for interview schedules and status updates
- Ensure data security and privacy measures are in place.

Non-Functional Requirements:

Performance: To ensure effective usability, the system must react to user actions in less than two seconds.

Security: Authorized admin users should only be able to access sensitive functionalities through secure authentication mechanisms, and user data must be encrypted both during transmission and storage.

Usability: In the event of input errors or system failures, users should be guided by clear and concise error messages that are provided in the user interface.

Reliability: In the event of a system failure or crash, data loss should be prevented by having a backup and recovery mechanism in place, and the system should be available around-the-clock with little downtime.

Scalability: The system must be built to support future expansion into new features and functionalities in response to changing needs, as well as an increase in the number of users and volume of data over time.

System Overview:

Users:

1. Students: Students register for labs, participate in interviews, and check their status whether they are selected or not, and if not selected apply for wildcard process, and check their status whether they are selected or not if not selected student will be allocated to the academic slot.

2. Faculty:

Faculty members conduct review and select or reject the students.

Features:

1. Login and registration:

Students can register for an account or login with their existing account

2. Dashboards for students and faculty members.

Students can view available labs, register for labs, and track their registration status.

Faculty members can manage lab registrations, schedule interviews, and review student profiles.

3. Lab Registration:

Students browse available labs and register for the labs they're interested in.

Faculty members review and approve / reject student registrations.

4. Interview Process:

Faculty members schedule and conduct interviews for registered students.

After interviews, faculty members can Select or Reject the students.

5. Wildcard Entry:

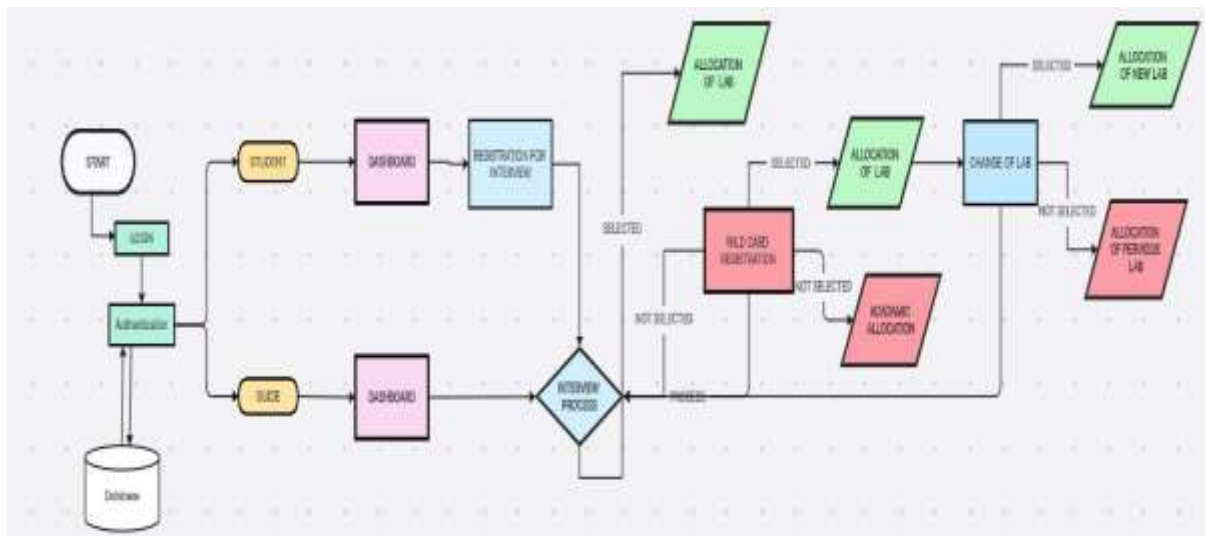
Students rejected in the regular process can apply for wildcard entry.

Faculty members review wildcard applications, conduct interviews, if necessary, and make decisions based on performance.

6. Notifications:

Email notification sent to users for important events like interview scheduling and registration status updates.

Flow chart:



Prototype of the Project:

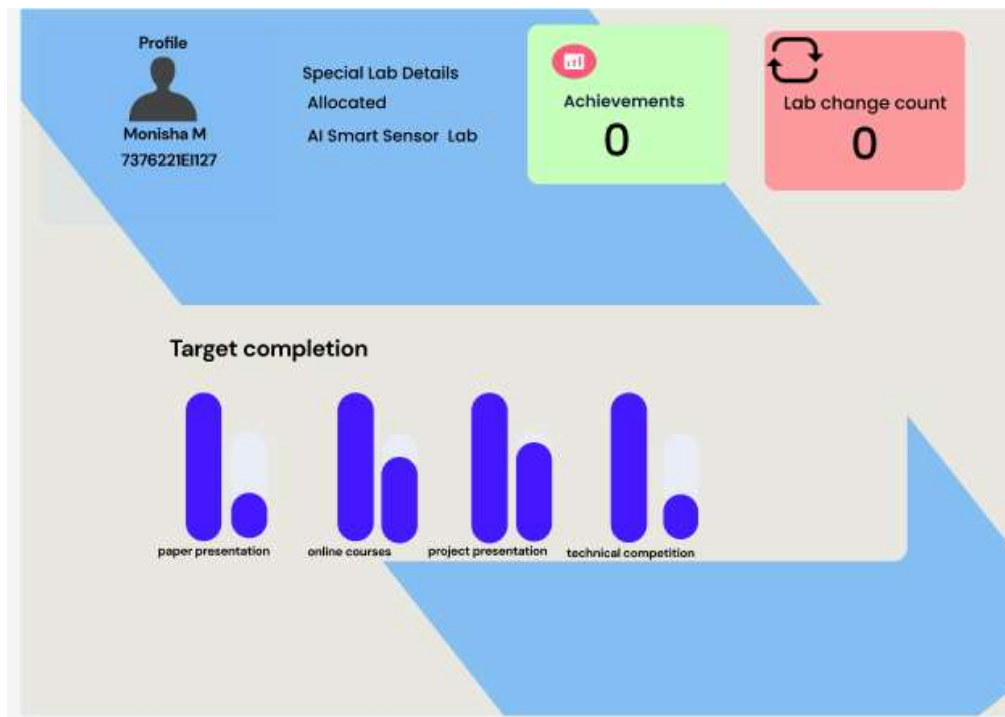
1.Login page:

The screenshot shows the login page of the Special Lab Portal. The page has a blue header with the text 'SPECIAL LAB PORTAL'. Below the header, there are two input fields: 'Email' and 'Password'. The 'Email' field has a placeholder text 'Enter your Email here.' and the 'Password' field has a placeholder text 'Enter your Password here.'. Below the input fields, there is a link that says 'sign in with BIT credentials.'. Below the link, there is a blue button labeled 'Sign In'. At the bottom, there is a 'Sign in with Google' button with the Google logo.

2. Home page:



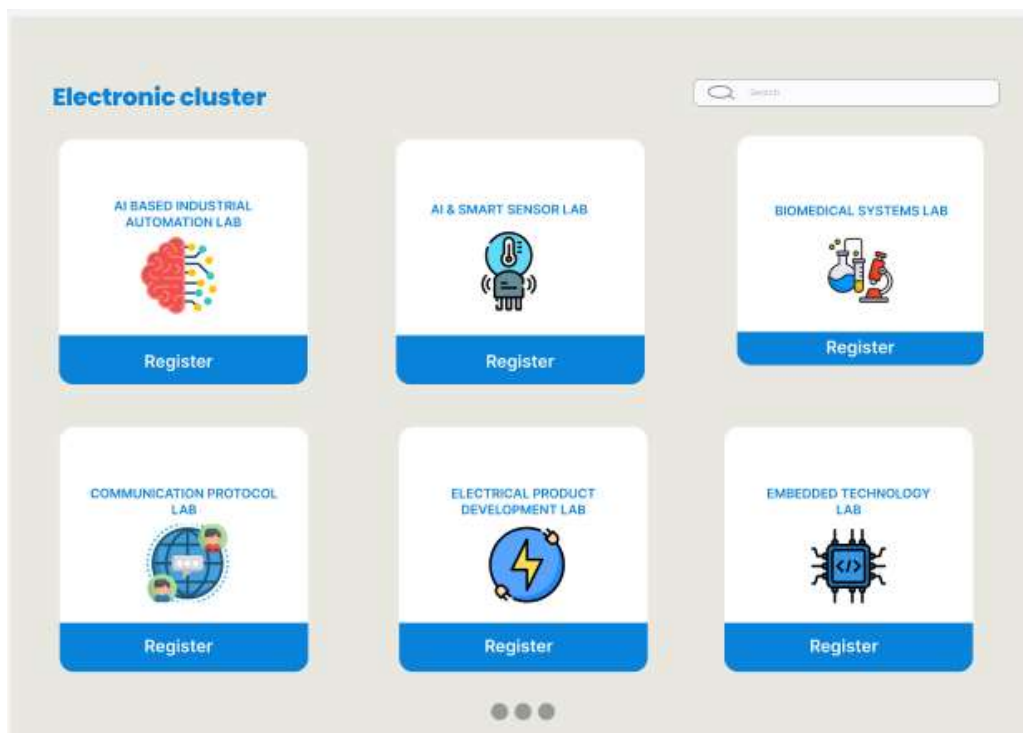
3. Student dashboard:



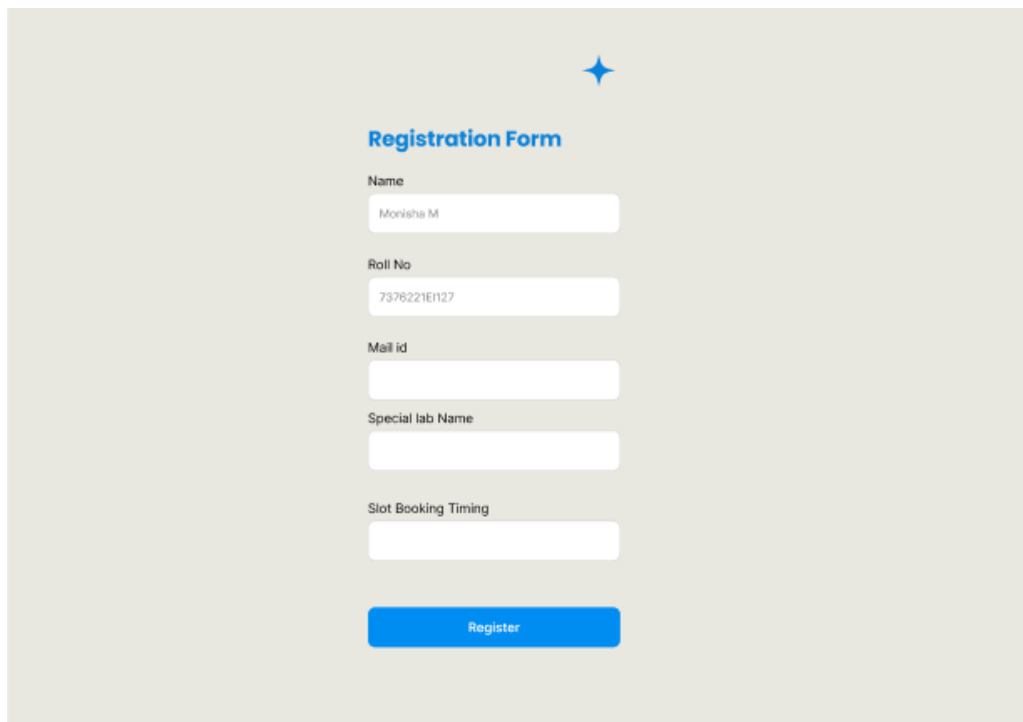
4. Faculty Dashboard:



5. Clusters and Special lab description:



6. Registration Form:



A registration form titled "Registration Form" with a blue star icon above it. The form contains five input fields: "Name" (filled with "Monisha M"), "Roll No" (filled with "7376221E1127"), "Mail id" (empty), "Special lab Name" (empty), and "Slot Booking Timing" (empty). A blue "Register" button is at the bottom.

Registration Form

Name
Monisha M

Roll No
7376221E1127

Mail id

Special lab Name

Slot Booking Timing

Register

7. Slot booking process:



A screenshot of a "slot booking details" page. On the left is a blue sidebar menu with "Home" (containing "Dashboard" and "Change lab"), "Cluster" (containing "Biotechnology", "Civil", "Fashion technology", "Food Technology", "IT", and "Mechanical"), and "Logout". The main content area is white and displays booking information: "Entry: wild card entry", "Slot booked", "Timing: 2:00 pm to 2:30 pm", "Venue: WW 117", and "Faculty Name: XXXXX" with "mail id: xxxx@bitsathy.ac.in" below it.

slot booking details

Home

- Dashboard
- Change lab

Cluster

- Biotechnology
- Civil
- Fashion technology
- Food Technology
- IT
- Mechanical

Logout

Entry: wild card entry

Slot booked

Timing: 2:00 pm to 2:30 pm

Venue: WW 117

Faculty Name: XXXXX
mail id: xxxx@bitsathy.ac.in

8. Interview Process

selected rejected list

Interview Result Updation

| Name | ROI number | Email | Status | |
|-----------------|--------------|-----------------------|--------|--------|
| Jane Cooper | 737622KCS101 | jane@microsoft.com | Select | Reject |
| Floyd Miles | 737622KCS103 | floyd@yahoo.com | Select | Reject |
| Ronald Richards | 737622KCS105 | ronald@adobe.com | Select | Reject |
| Marvin McKinney | 737622KCS128 | marvin@tesla.com | Select | Reject |
| Jeremie Bell | 737622KCS102 | jerome@google.com | Select | Reject |
| Kathryn Murphy | 737622KCS124 | kathryn@microsoft.com | Select | Reject |
| Jacob Jones | 737622KCS156 | jacob@yahoo.com | Select | Reject |
| Kristin Watson | 737622KCS163 | kristin@facebook.com | Select | Reject |

Showing data 1 to 8 of 2500 entries

1 2 3 4 ... 40

9. Result:

Home

- Dashboard
- Change lab

Cluster

- Biotechnology
- Civil
- Fashion technology
- Food Technology
- IT
- Mechanical

Logout

Entry: wild card entry

Interview: Attended

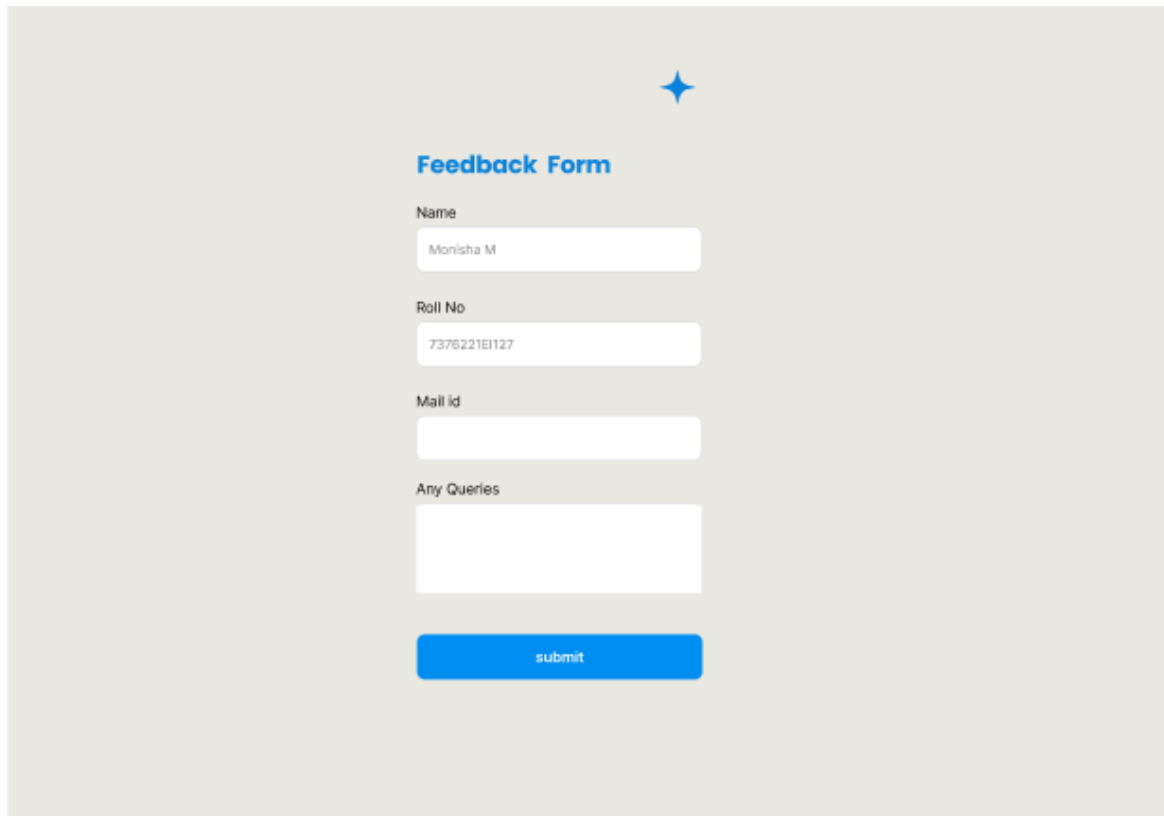
Result: Selected

Allocated Special lab: Data Science Lab


Special lab Faculty Name: XXXXX

mail id: xxxx@bitsathy.ac.in

10. Feedback Form:



A feedback form titled "Feedback Form" with a blue star icon. The form is set against a light beige background. It contains four input fields: "Name" (with the value "Monisha M"), "Roll No" (with the value "7376221E1127"), "Mail id" (empty), and "Any Queries" (empty). A blue "submit" button is at the bottom.



Feedback Form

Name

Roll No

Mail id

Any Queries