BRAC UNIVERSITY

Inspiring Excellence

CSE471: System Analysis and Design Assignment on Functional Requirements Proposed Project Title: ThesisConnect

Group No: 9, CSE471 Lab Section: 02, Spring 2025	
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Tech Stack:

- **Language:** JavaScript
- **Framework:** React.js, Express.js
- **Styling:** TailwindCSS
- **Database:** MongoDB
- **Deployment:** Render

Functional requirements:

Module 1: Authentication & Profile Management, Research Blog Posting, Tagging

1. **Showrin**: Implements secure user registration and login using JWT or OAuth; builds profile creation/editing interface. Develops role-based access control and integrates institutional affiliation fields in user profiles. Designs the user interface for profile views and implements a user avatar upload and skill-tagging system.

2. **Nusra**t: Builds backend API and database schema for blog articles with support for Markdown content. Designs the blog editor interface with formatting preview and tag selection. Integrates blog listing, filtering by tags, and upvote under each article.

3. **Omor:** Develops a tagging schema and integrates tag input across projects, blogs, and community posts. Implements filtering logic and tag-based navigation across the platform. Designs the UI/UX for tag suggestions, related-tag discovery, and tag-based search results.

Module 2: Project Listings, Publication, Admin

1. **Nusrat**: Builds frontend forms and modals for creating/editing publications (mirroring projects) and details pages for both. Ensures "My Projects" and "My Publications" views work..
2. **Omor**: Implements unified discovery page with Projects | Publications tabs, filters, sorts, and pagination, searching publications using external APIs.
3. **Showrin**: Develops admin dashboard frontend and backend enhancements.

Module 3: Forum & Community Interaction, Bookmark, Collaborator and mentor

1. **Nusrat:** Implements Find Collaborator/Mentor page with filters and profiles, builds mentor profile page UI with full details, and integrates request/response sending workflow.
2. **Showrin:** Creates request–response management page, implements community post creation with like/unlike and comments, and develops community feed UI.
3. **Omor:** Implements bookmarks feature with UI and backend, builds mentor dashboard for mentees, project review and requests, and adds recent activities tracking.