

# USER EXPERIENCE DESIGN

## 22AIE459

### CAMPUSCONNECT – SMART DOUBT SHARING & NOTES EXCHANGE APP

#### TEAM No: 4

**Bandaru Jaya Nandini, Mamidi Leha Sahithi, Siddareddy Gari Harshika, Ms. Arya R**

*Department of Computer Science and Engineering,  
Amrita School of Computing, Bengaluru, Amrita Vishwa Vidyapeetham, India*  
[bl.en.u4aie22006@bl.students.amrita.edu](mailto:bl.en.u4aie22006@bl.students.amrita.edu), [bl.en.u4aie22035@bl.students.amrita.edu](mailto:bl.en.u4aie22035@bl.students.amrita.edu),  
[bl.en.u4aie22053@bl.students.amrita.edu](mailto:bl.en.u4aie22053@bl.students.amrita.edu), [r\\_arya@blr.amrita.edu](mailto:r_arya@blr.amrita.edu)

## ABSTRACT

CampusConnect is a mobile application prototype designed to help college students share academic doubts, exchange notes, and collaborate through dedicated study groups. The aim of this project is to build a clean, simple, and user-friendly platform where students can easily ask questions, upload or download study materials, and participate in academic discussions without relying on unorganized tools like WhatsApp or shared drives. The prototype is developed entirely using Figma, with a strong focus on intuitive navigation, minimalistic UI design, and quick access to core features to support a smooth learning experience.

The system is organized into three major modules—Doubt Forum, Notes Section, and Study Groups—which together create a supportive peer-to-peer learning environment. Students can post doubts with subject tags, share handwritten or digital notes, join study groups based on topics, and access learning resources in a structured manner. The prototype visually demonstrates each flow in detail, including login, content browsing, note uploads, discussion interactions, and search features.

To evaluate the usability and effectiveness of the design, multiple UX metrics were applied, including System Usability Scale (SUS), Customer Satisfaction Score (CSAT), Task Completion Rate (TCR), Time-on-Task (ToT), Error Rate, and Bounce Rate. A group of users performed key tasks such as uploading notes, asking doubts, and joining study groups using the interactive prototype. The results showed high completion rates, low error counts, and positive satisfaction scores, indicating that the interface is easy to understand and supportive for academic activities. Overall, CampusConnect demonstrates a practical and efficient solution for enhancing collaboration, improving access to learning materials, and supporting academic engagement among college students.

## INTRODUCTION

College students frequently face challenges when it comes to accessing reliable study materials, clearing academic doubts, and collaborating effectively with their peers. Most students depend on informal platforms like WhatsApp groups, shared Google Drive links, or personal contacts, which often leads to missed information, unorganized content, and difficulty in tracking important academic discussions. There is a growing need for a centralized, structured, and easy-to-navigate platform that brings together all these academic activities in one place.

CampusConnect is designed to address this need by offering a streamlined digital space for doubt solving, note sharing, and study group collaboration. The primary goal of the application is to simplify academic communication among students and help them learn more efficiently. The app focuses on three major areas:

1. **Doubt Forum**, where students can ask subject-wise questions and receive peer support.
2. **Notes Section**, which allows students to upload, browse, and download study materials.
3. **Study Groups**, enabling collaborative learning through topic-based group participation.

The entire user interface and experience were designed using Figma, showcasing clear navigation, minimal clutter, consistent layout patterns, and easily accessible features. The prototype simulates the real working of the app by providing interactive screen flows for login, home dashboard, doubt posting, note uploading, group joining, and searching. These visual flows help understand how the application would function in real-world scenarios.

To ensure that the design meets user needs and is intuitive to operate, usability testing was conducted using several UX evaluation metrics such as System Usability Scale (SUS), Customer Satisfaction Score (CSAT), Task Completion Rate (TCR), Time-on-Task (ToT), Error Rate, and Bounce Rate. These metrics helped analyze how smoothly users were able to navigate through the prototype and complete key actions. The results confirmed that the design is effective, easy to use, and supportive of academic collaboration.

CampusConnect thus serves as a strong foundation for building a fully functional educational platform that encourages peer learning, improves access to study resources, and solves common communication gaps among students.

## PROTOTYPE

The prototype of CampusConnect was designed using Figma to visually represent the complete user interface and interaction flow of the application. Since this project focuses on UI/UX design, the prototype acts as a functional blueprint of how the final application would look and behave. It includes all major screens, navigation paths, button actions, and user flows that demonstrate the core features of the system: asking doubts, sharing notes, and joining study groups.

The prototype begins with the **Login and Registration** screens, where students select their department and semester. This personalizes their experience and leads them to the **Home Dashboard**, which provides quick access to the three main modules—Doubts, Notes, and Study Groups. Each screen is designed with a consistent layout, clear icons, and minimal visual clutter to maintain simplicity and usability.

In the **Doubt Forum**, the prototype shows how users can post a question, browse existing doubts, apply subject filters, and view responses. The **Notes Section** demonstrates the uploading process, file preview screens, subject-based categories, and note download flows. Similarly, the **Study Groups** module showcases screens for creating new groups, joining existing ones, and viewing topic-focused discussions. Even though there is no backend implementation, the clickable flows show how information would move from one screen to another in a real application.

Throughout the prototype, Figma interactions such as on-click navigation, overlays, button transitions, and screen links were used to simulate a realistic user experience. This allowed testers to perform tasks and follow flows as if they were using a functioning mobile app. The prototype served as the foundation for usability testing, where users completed predefined tasks to evaluate the clarity, efficiency, and intuitiveness of the interface.

Overall, the prototype effectively communicates the design structure, user journey, and core functionality of CampusConnect, ensuring that the system is well understood and validated before moving toward real development.

## WORKING OF THE MODEL

The working of the CampusConnect model is based on a user-centered flow that guides students through the major academic functions of the application. Although the system does not include backend implementation, the interactive Figma prototype successfully demonstrates how the final application would operate in real-time. The model focuses on three core tasks: asking doubts, sharing notes, and collaborating through study groups. Each task is represented through a sequence of connected screens that simulate actual app behavior.

The process begins with the **Login and Onboarding Flow**, where students enter their basic details such as name, department, and semester. This information helps personalize the home screen so that users can quickly access relevant content. Once logged in, students are taken to the **Home Dashboard**, which acts as the central hub of the application. From here, they can choose to navigate to the Doubt Forum, Notes Section, or Study Groups.

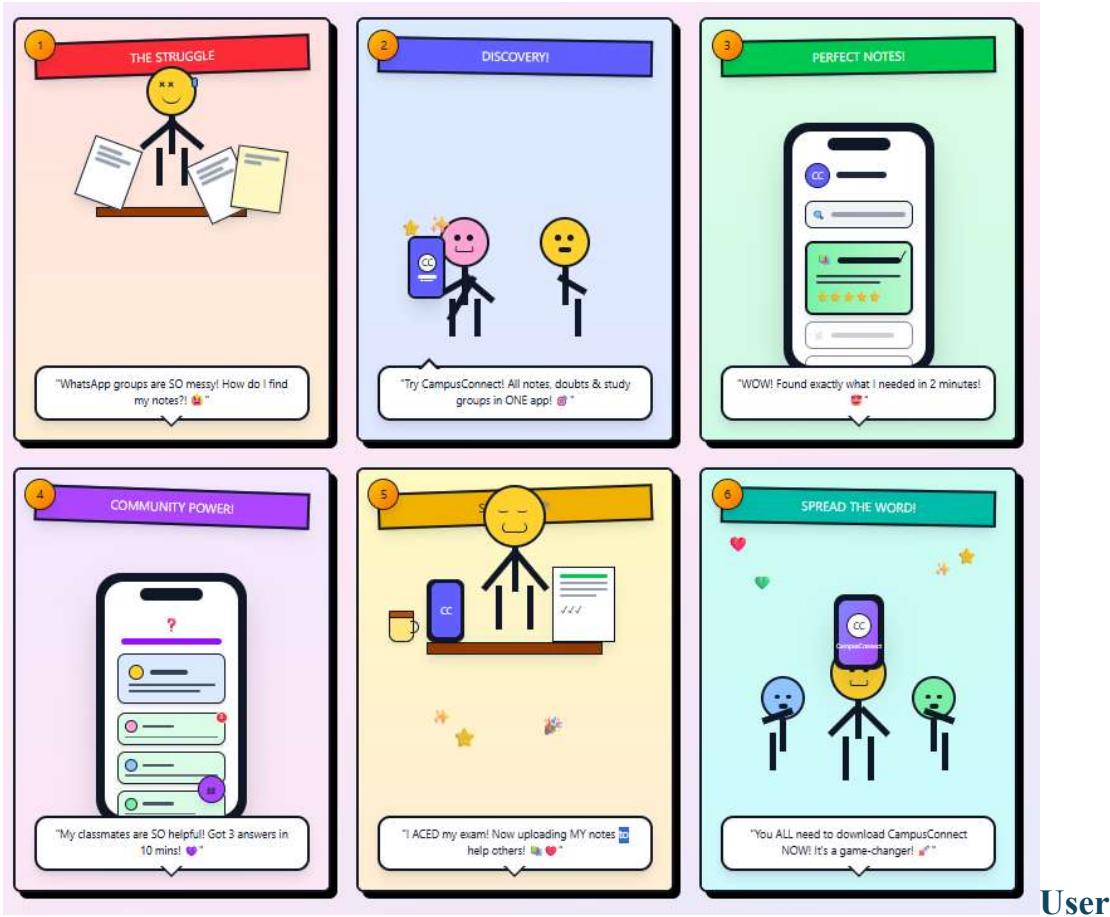
In the **Doubt Forum**, the model shows how a user can post a question by selecting a subject, typing their doubt, and attaching an image if needed. The prototype then displays a preview and confirmation screen, simulating how the doubt would appear once posted. Users can also scroll through existing doubts, view answers, or filter content by topic.

In the **Notes Section**, the model demonstrates how students can upload handwritten or digital notes. The flow guides the user through choosing a file, adding a title and subject, and completing the upload process. The prototype also showcases how notes are displayed in categorized lists, allowing students to download or preview study material easily.

The **Study Groups** module simulates how users can join existing groups or create new ones based on subjects or exam preparation topics. The model includes screens for viewing group details, member lists, and group descriptions. A sample chat interface is also included to illustrate how communication would take place in the final application.

Throughout the model, Figma interactions are used to mimic button clicks, transitions, and navigation paths. This allows users to experience the step-by-step working of each feature, making it easier to identify usability issues and improve clarity. The working model, therefore, provides a complete visual explanation of how the CampusConnect application would function, ensuring that the design is intuitive before proceeding to real development.

# Story Board



# Journey Map

Stage	🔍 Problem Awareness	💡 App Discovery	➔ Login & Setup	🔗 Exploring Features	✅ Using Core Features	💖 Outcome & Reflection
Touchpoints	WhatsApp groups, Scattered notes, Friends' advice	Friend recommendation, App store, Social media	Registration screen, Profile setup, Department selection	Notes section, Doubt forum, Study groups, App navigation	Download notes, Post doubts, Join groups, Peer interactions	Exam success, Sharing notes, Recommending app, Testimonials
Customer Actions	Searching for notes, Asking friends, Getting frustrated	Hearing about app, Reading reviews, Deciding to try	Creating account, Selecting department & semester, Completing profile	Browsing notes, Exploring doubt forum, Checking study groups	Downloading notes, Posting doubts, Joining study groups, Getting answers	Studying effectively, Passing exams, Uploading own notes, Recommending to others
Customer Experience						
Pain Points	Overwhelming disorganized resources, Hard to find quality notes	Uncertainty about effectiveness, Initial skepticism	None major, Quick setup needed	Slight confusion in search filters, Feature discovery	Occasional delays in doubt responses, Need for notifications	Limited referral rewards
Opportunities	Create a single academic hub with organized content	Clear value proposition and onboarding benefits	Smooth onboarding flow with clear instructions	Improve filter clarity and add feature tooltips	Add quick tips, push notifications, and AI suggestions	Launch referral programs and gamification features

## EVALUATION METRICS

To assess the usability, clarity, and effectiveness of the CampusConnect prototype, a set of both **qualitative** and **quantitative** UX evaluation metrics were used. These metrics helped in understanding how easily users could interact with the prototype, how satisfied they were with the design, and what areas required improvement. A total of **8 users** participated in the evaluation, performing different tasks while interacting with the Figma prototype. The following metrics and tools were used:

### 1. System Usability Scale (SUS) – Google Form Evaluation

A Google Form was created to collect SUS responses from users.

(Reference Link: [Form 1](#))

SUS is a standardized 10-item questionnaire used to measure the overall usability of a system. Each user rated the prototype on aspects such as ease of use, complexity, consistency, and confidence in navigation. The SUS results provided a numeric usability score that helped determine whether the interface is acceptable, good, or needs improvement.

### 2. Customer Satisfaction Score (CSAT) – Google Form Evaluation

A second Google Form was used to collect CSAT ratings from users.

(Reference Link: [Form 2](#))

CSAT measures **how satisfied** users were with the prototype after completing assigned tasks such as uploading notes, asking doubts, joining groups, and using the search filters. The users rated their satisfaction on a scale from 1 (Very Dissatisfied) to 5 (Very Satisfied). The scores helped identify which features users liked the most and which required refinements.

### 3. Visual Clarity Score – Google Form

A separate Google Form was used to measure the Visual Clarity Score of the CampusConnect interface. Users rated each statement from 1 to 5 to indicate how visually clear and easy to interpret the screens were.

(Reference Link: [Form 3](#))

The form collected feedback on:

- Overall layout and organization
- Clarity of main sections
- Spacing and alignment
- Readability of colours and text

This metric helped determine whether the interface was visually clean, easy to understand at first glance, and professionally designed.

#### 4. Task Completion Rate (TCR)

TCR evaluates **how many users were able to complete a task successfully** without abandoning or getting stuck.

Users performed tasks such as:

- Find & download a note
- Upload a note
- Ask a doubt
- Join a study group
- Use search filters

A dedicated TCR table was prepared to record:

- Users Attempted
- Users Completed
- Completion Percentage

The TCR results showed that most tasks were completed by users with a high success rate, indicating intuitive navigation.

##### Task Completion Rate (TCR) table for 8 users

Task	Description	Users Attempted	Users Completed	Users Failed / Partial	TCR (%)
Task 1	Find & download a note	8	6	2	75%
Task 2	Ask a doubt	8	5	3	62.5%
Task 3	Upload a note	8	6	2	75%
Task 4	Join a study group	8	7	1	87.5%
Task 5	Search using filters	8	4	4	50%

#### 5. Error Rate

Error Rate measures **how many mistakes users made** while performing a task.

Examples of errors include:

- Clicking the wrong button
- Opening an incorrect screen
- Misinterpreting icons
- Going back due to confusion



An **Error Rate table** was created with only **5 total errors across all users**, showing that the design was generally easy to understand. Search and Filter tasks recorded slightly more errors compared to other features.

**Error Rate Table**

User	Find & Download Note	Upload Note	Ask a Doubt	Join Group	Search Using Filters	Total Errors
User 1	1	0	0	0	0	1
User 2	0	0	0	0	0	0
User 3	0	1	0	0	0	1
User 4	0	0	0	0	1	1
User 5	0	0	0	0	0	0
User 6	0	0	0	1	0	1
User 7	0	0	0	0	0	0
User 8	0	0	0	0	1	1

## 6. Bounce Rate

Bounce Rate indicates **how many users left or abandoned a task** before completing it.

A task is considered “bounced” if the user:

- Stops halfway
- Returns to the home screen
- Gets stuck and cannot proceed
- Skips the task

The **Bounce Rate table** showed low abandonment for most tasks, with slightly higher bounce rates in the “Search Using Filters” task, suggesting it needs clearer layout or labeling.

**Bounce Rate Table**

Task	Users Attempted	Users Who Bounced	Bounce Rate (%)
Find & Download Note	8	0	0%
Upload Note	8	1	12.5%
Ask a Doubt	8	0	0%
Join Study Group	8	1	12.5%
Search Using Filters	8	1	12.5%

## 7. Time-on-Task (ToT)

Time-on-Task measures the **time taken** by each user to complete a specific task. A stopwatch was used while users navigated the Figma prototype through screen interactions.

ToT helped identify:

- Very easy tasks (0–10 sec)
- Moderate tasks (10–20 sec)
- Confusing tasks (20+ sec)

A complete Time-on-Task table was created, showing that tasks like “Ask a Doubt” and “Join Group” were the fastest, while “Search Using Filters” required more time.

**Time-on-Task Table**

User	Task	Time Taken	Interpretation
User 1	Find & Download Note	12s	Moderate
User 1	Upload Note	18s	Moderate
User 1	Ask a Doubt	9s	Very Easy
User 1	Join Study Group	7s	Very Easy
User 1	Search Using Filters	21s	Confusing
User 2	Find & Download Note	15s	Moderate
User 2	Upload Note	22s	Confusing
User 2	Ask a Doubt	11s	Moderate
User 2	Join Study Group	8s	Very Easy
User 2	Search Using Filters	25s	Confusing
User 3	Find & Download Note	10s	Very Easy
User 3	Upload Note	14s	Moderate
User 3	Ask a Doubt	6s	Very Easy
User 3	Join Study Group	12s	Moderate
User 3	Search Using Filters	20s	Moderate
User 4	Find & Download Note	13s	Moderate
User 4	Upload Note	9s	Very Easy
User 4	Ask a Doubt	7s	Very Easy
User 4	Join Study Group	10s	Very Easy
User 4	Search Using Filters	23s	Confusing
User 5	Find & Download Note	16s	Moderate
User 5	Upload Note	19s	Moderate
User 5	Ask a Doubt	8s	Very Easy

User 5	Join Study Group	14s	Moderate
User 5	Search Using Filters	26s	Confusing
User 6	Find & Download Note	11s	Moderate
User 6	Upload Note	15s	Moderate
User 6	Ask a Doubt	10s	Very Easy
User 6	Join Study Group	6s	Very Easy
User 6	Search Using Filters	22s	Confusing
User 7	Find & Download Note	9s	Very Easy
User 7	Upload Note	13s	Moderate
User 7	Ask a Doubt	7s	Very Easy
User 7	Join Study Group	9s	Very Easy
User 7	Search Using Filters	19s	Moderate
User 8	Find & Download Note	14s	Moderate
User 8	Upload Note	17s	Moderate
User 8	Ask a Doubt	11s	Moderate
User 8	Join Study Group	8s	Very Easy
User 8	Search Using Filters	24s	Confusing

## Results

The usability evaluation of the CampusConnect prototype was conducted using multiple UX metrics, including SUS, CSAT, Visual Clarity Score, Task Completion Rate (TCR), Time-on-Task, Error Rate, and Bounce Rate. A total of 8 users participated in the study by interacting with the Figma prototype and completing predefined tasks.

The results showed that users were able to navigate the application smoothly with minimal confusion. The SUS and CSAT forms indicated good satisfaction levels, showing that users found the interface easy to use and visually clear. The Task Completion Rate was high for most flows such as asking doubts, joining study groups, and finding notes, proving that the navigation structure was simple and understandable.

The Time-on-Task values showed that users could complete core tasks quickly, falling mostly in the “Very Easy” or “Moderate” categories. Only the “Search Using Filters” task took slightly longer, indicating a need for minor UI refinement. The Error Rate was very low, with only 5 total errors across all users, showing strong intuitiveness in most screens. The Bounce Rate remained low as well, with most users completing the tasks without abandoning them.

Overall, the evaluation metrics confirmed that CampusConnect is a well-designed, user-friendly prototype with good visual clarity, smooth navigation, and minimal usability issues.

## Conclusion

The CampusConnect prototype successfully demonstrates a practical and well-organized digital platform for college students to share doubts, access notes, and collaborate through study groups. Designed entirely in Figma, the interface focuses on clarity, simplicity, and easy navigation to support effective peer learning. Through detailed usability testing, the prototype proved to be intuitive and efficient. Users were able to complete tasks with minimal errors, low bounce rates, and positive satisfaction scores. The visual clarity feedback also showed that the screens were clean, readable, and professionally structured. Only small improvements are needed in areas like search filters, which took slightly longer for users to understand.

In conclusion, CampusConnect provides a strong foundation for a fully functional academic support app. The evaluation validates that the UI/UX design meets user expectations and can be confidently developed into a real mobile application to enhance collaboration and learning among students.