



French University in Armenia

Faculty of Computer Science and Applied Mathematics

Final Report

Project SA



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Abstract

Project SA: Building Educonnect - Our Collaborative Journey

Throughout Project SA, our team dedicated ourselves to developing Educonnect, our startup project.

Here's how we made it happen:

Planning Phase:

- We engaged in extensive brainstorming sessions to generate ideas and establish the vision for Educonnect.
- Thorough market research allowed us to gain insights into user needs and identify opportunities for innovation.
- By carefully assigning roles and responsibilities based on each team member's skills and expertise, we ensured efficient task management and collaboration.

Development Phase:

- Embracing agile methodology, we remained adaptable to changes and focused on iterative development to drive progress.
- Leveraging collaborative tools facilitated seamless communication and enhanced our workflow efficiency.
- Regular team meetings provided a platform to monitor progress, address challenges, and foster a supportive team environment.

Our collective experience in Project SA not only resulted in the successful development of Educonnect but also imparted invaluable lessons in teamwork, innovation, and entrepreneurship.

Our video link: <https://youtu.be/jvaA20xF5rk>

Content

Introduction

In the dynamic landscape of student life, Educonnect emerges as a game-changing mobile application, redefining how students in Yerevan navigate their academic and professional journeys. Addressing the multifaceted challenges students encounter, Educonnect seamlessly integrates note-taking, scheduling, job applications, and access to study resources into one comprehensive platform.

Setting itself apart, Educonnect introduces "Tutor Connect," enabling students to find and connect with tutors for personalized training sessions. This innovative addition enhances the learning experience, complementing the app's commitment to providing a holistic student-centric platform.

With localized maps for discovering nearby coworking spaces, smart note-taking, a daily planner, and a streamlined career center, Educonnect becomes the go-to tool for students seeking organization, career support, and collaborative study spaces. It aspires not just to be an app but a transformative force, enhancing the readiness and preparedness of Yerevan's students in their academic and professional pursuits.

1. Problem statement explain personal tasks within Project SA and problem statement

Comparative research within the existing solutions

Educonnect, a revolutionary mobile application, aims to empower students in their academic and professional pursuits. This comparative analysis delves into existing solutions within relevant categories to better understand Educonnect's position in the market.

1. Note-taking and Organization Apps:

Microsoft OneNote:

Strengths: Robust note-taking capabilities, integration with Microsoft ecosystem.

Weaknesses: Learning curve for new users.

Evernote:

Strengths: Versatile note organization, cross-platform support.

Weaknesses: Some features may require a premium subscription.

Notion:

Strengths: Collaborative workspace, flexible organization.

Weaknesses: Initial setup may be overwhelming for some users.

2. Scheduling and Planner Apps:

Google Calendar:

Strengths: User-friendly, seamless integration with Google services.

Weaknesses: Limited task management features.

Microsoft Outlook:

Strengths: Comprehensive email and calendar integration.

Weaknesses: Complexity for users seeking a simpler solution.

Todoist:

Strengths: Intuitive task management, cross-platform availability.

Weaknesses: Advanced features restricted to premium users.

3. Career Planning and Job Search Apps:

LinkedIn:

Strengths: Professional networking, job search functionalities.

Weaknesses: Limited resume customization options.

Indeed:

Strengths: Extensive job listings, user-friendly interface.

Weaknesses: May lack advanced career planning tools.

Glassdoor:

Strengths: Company insights, salary information.

Weaknesses: Primarily focused on company reviews.

4. Collaborative Learning and Tutoring Apps:

Chegg:

Strengths: Textbook solutions, online tutoring services.

Weaknesses: Subscription model may be costly for some students.

Khan Academy:

Strengths: Free educational resources, comprehensive subject coverage.

Weaknesses: Limited personalization for advanced learners.

Wyzant:

Strengths: Tutor matching, personalized learning plans.

Weaknesses: Transaction fees for lessons may be a drawback.

5. Maps for Coworking Spaces Apps:

Coworker:

Strengths: Extensive coworking space database, user reviews.

Weaknesses: Limited integration with other features.

LiquidSpace:

Strengths: Flexible workspace booking options.

Weaknesses: Smaller network compared to some competitors.

Regus:

Strengths: Global coworking network, established brand.

Weaknesses: Higher cost compared to other options.

Analysis:

Common Trends:

While each existing solution brings unique features to the table, common trends include a focus on user-friendly interfaces, cross-platform availability, and integration with broader ecosystems. Notably, several platforms offer collaborative and personalized features to enhance the user experience.

Unique Selling Points (USPs):

Educonnect distinguishes itself through its seamless integration of note-taking, scheduling, career planning, tutoring, and coworking space discovery within a single platform. This comprehensive approach caters directly to the multifaceted needs of students, setting Educonnect apart as an all-in-one solution for academic and professional success.

User Feedback:

Analyzing user feedback reveals that while existing solutions excel in specific areas, users often express the desire for more integrated and streamlined platforms. Educonnect has the opportunity to address these user needs by continuously refining its features based on valuable feedback, ensuring a user-centric approach.

Market Share:

Considering market share, each existing solution holds a significant presence within its respective category. Educonnect, positioned as an integrated platform, has the potential to capture a considerable market share by offering a unified solution that addresses the diverse needs of students more comprehensively.

Conclusion:

The comparative research underscores Educonnect's potential to stand out in a crowded market. By leveraging its unique combination of features and addressing user needs identified through competitor analysis, Educonnect can position itself as the go-to platform for students globally. Continuous monitoring of market trends and user feedback will be vital for staying ahead in this dynamic landscape.

Comparative Research Summary

Educonnect stands out as a unique and comprehensive solution for students, integrating note-taking, scheduling, career planning, tutoring, and coworking space discovery. The analysis highlighted its competitive edge:

Integration Advantage: Educonnect excels by combining features seamlessly, offering a more holistic approach compared to standalone apps.

User-Centric Design: By addressing diverse student needs, Educonnect positions itself as a user-centric platform, distinguishing it from existing solutions.

Market Potential: Educonnect has the potential to capture a significant market share by providing an all-in-one solution for academic and professional success.

Conclusion:

Educonnect's integrated platform and user-focused approach position it as a promising solution in the competitive landscape, showcasing its potential to meet the evolving demands of students globally. Continuous refinement and responsiveness to user feedback will be key to sustaining and expanding its market presence.

Requirements Analysis with René Descartes square

What will happen if this happens?	What will happen if this doesn't happen?
<ul style="list-style-type: none">• What will happen if the note-taking functionality is well-implemented?<ul style="list-style-type: none">- Users will have a seamless and efficient tool to capture and organize their notes, enhancing their study experience.• 2. What will happen if the scheduling features are efficient and user-friendly?<ul style="list-style-type: none">- Users will effectively manage their time, assignments, and exam preparations, reducing stress and improving productivity.• 3. What will happen if the CV creation and submission process is streamlined?<ul style="list-style-type: none">- Users can effortlessly create professional CVs, increasing their chances of securing opportunities with a single-click submission.	<ul style="list-style-type: none">• 1. What will happen if user interface preferences align with user expectations?<ul style="list-style-type: none">- Users will have a more personalized and enjoyable experience, potentially increasing engagement and satisfaction.• 2. What will happen if features in Tutor Connect resonate well with users?<ul style="list-style-type: none">- Users will find value in personalized tutoring sessions, fostering a positive learning environment.• 3. What will happen if user feedback refines the optimal features for Tutor Connect?<ul style="list-style-type: none">- The platform will evolve based on user needs, potentially leading to higher user retention and satisfaction.

What will not happen if this happens?	What will not happen if this doesn't happen?
<ul style="list-style-type: none"> • 1. What will not happen if there are initial limitations in global coverage for coworking space mapping? • - Users outside the initially covered areas may not benefit from localized coworking space information, potentially limiting the app's utility for some students. • 2. What will not happen if platform compatibility constraints are not addressed initially? • - Users on certain devices or operating systems may face compatibility issues, potentially excluding a portion of the target audience. 	<ul style="list-style-type: none"> • 1. What will not happen if features unrelated to student-centric functionalities are not included? • - The app will maintain a clear focus on student needs, avoiding unnecessary complexity and potential user confusion. • 2. *What will not happen if overly complex and unnecessary functionalities are not implemented?* • - The app will prioritize simplicity, ensuring a user-friendly experience and reducing the risk of overwhelming users with unnecessary features. • <p>These answers provide insights into the potential outcomes and considerations associated with each quadrant, aiding in a comprehensive understanding of Educonnect's requirements.</p>

SWOT for the Educonnect

Strengths:

1. Comprehensive Platform: Educonnect offers a diverse range of features, including note-taking, scheduling, career planning, Tutor Connect, coworking space mapping, and resource libraries, providing a holistic solution for students.
2. User-Friendly Interface: A user-friendly design enhances the overall user experience, making it accessible and appealing to a wide audience of students.
3. Integrated Ecosystem: The seamless integration of various functionalities within a single platform sets Educonnect apart, providing convenience and efficiency for users.
4. Global Accessibility: The app's availability globally ensures that students from different locations can benefit from its features, fostering a broad user base.

Weaknesses:

1. Initial Global Coverage Limitations: The initial limitations in global coverage for coworking space mapping may restrict some users from accessing localized information in certain regions.
2. Learning Curve: The integration of multiple features might pose a learning curve for users initially, requiring effective onboarding strategies.
3. Dependency on External Factors: The success of the app may depend on factors like external collaborations, partnerships, and the availability of localized data.

Opportunities:

1. Continuous Feature Enhancement: Regular updates and feature enhancements based on user feedback provide opportunities for continuous improvement and user satisfaction.
2. Partnerships with Educational Institutions: Collaborating with educational institutions could provide opportunities for integration with academic systems and enhance the overall student experience.
3. Global Expansion: Further expansion of global coverage for coworking spaces and services can attract a more extensive user base.
4. Career Development Services: Strengthening career-related features could position Educonnect as a valuable tool for students entering the job market.

Threats:

1. Competitive Market: The education technology sector is highly competitive, and the emergence of new or established competitors could pose a threat to Educonnect's market share.
2. Technological Advancements: Rapid technological changes may require continuous adaptation to stay relevant and provide cutting-edge features.
3. Data Security Concerns: Given the sensitive nature of academic and personal information, any potential data breaches or security concerns could harm the app's reputation.
4. User Adoption Challenges: Convincing users to adopt a new platform and migrate from existing tools may be a challenge, especially if they are already accustomed to other productivity apps.

Business Model Canvas for the Educonnect

The Business Model Canvas

Key Partnerships: 	Key Activities: 	Value Propositions: 	Customer Relationships: 	Customer Segments: 
*Coaches *Students *Marketing and sales partners *Employers	*Platform for students which will include coworking space map, student chats, CV creating and applying for a job application and cool events calendar.	* For students it will be easier to connect with each other and make education easier. It will also simplify managing your plans. * For advertisers an audience oriented platform with target ads features.	Straight connection between employers and employees, between service providers and customers.	*Students *Internet users *advertisers and ad agencies *Average teenager
Key Resources: 	*Universities *Older students *Lecturers * Professors		Channels:  Educonnect mobile app and website.	
Cost Structure: traffic acquisition costs, datacenters costs, R&D costs, sales & marketing costs, general & administrative costs.		Revenue Streams: 	*Advertising services *Premium educational materials	

Requirements description for the Educonnect

Educonnect is designed to be a versatile and integrated platform for students, offering a comprehensive set of features. The system is intended for use in various controlled environments, such as educational institutions, dedicated study spaces, and students' personal spaces. The following outlines key requirements and specifications for Educonnect:

Functional & Non-functional Requirements

Functional Requirements:

1. Note-taking and Organization:

- The system must provide an intuitive note-taking feature with categorization and synchronization across devices.

2. Scheduling and Planner:

- Educonnect's scheduling feature must allow users to manage daily, weekly, and monthly tasks, integrating seamlessly with note-taking.

3. Career Center:

- The Career Center should include tools for resume creation, job search, and one-click application submission.

4. Tutor Connect:

- Educonnect's Tutor Connect must feature a searchable database of tutors, scheduling capabilities, and in-app communication tools.

5. Maps of Coworking Spaces:

- The system must incorporate localized maps for students to discover nearby coworking spaces for studying.

6. Resource Library for Books/PDF Files:

- Educonnect must provide a resource library with categorized access to books, PDF files, and lectures.

7. User Accounts and Profiles:

- Users should have secure accounts with personalized profiles, academic achievements, and progress tracking.

8. Notifications and Announcements:

- Educonnect must offer a centralized space for important announcements and notifications from educational institutions, tutors, and employers.

9. Collaborative Features:

- Collaborative tools, such as shared note-taking and group discussions, should be available to facilitate group projects and study groups.

Non-functional Requirements:

1. The platform must be user-friendly and intuitive for users of different skill levels.
2. The system should be secure and stable, minimizing the risk of system crashes or data breaches.
3. Educonnect should be scalable, accommodating multiple users simultaneously for large-scale training exercises.
4. Providing a realistic and immersive experience is crucial, including high-quality graphics and realistic sound effects.
5. Installation and maintenance must be easy, with minimal requirements for specialized personnel or equipment.

Must Have, Should Have, Could Have, Won't Have Requirements:

Must Have:

- Realistic simulation of various educational scenarios.
- Customizable scenarios and training modules.
- Accessible and intuitive user interface.
- Compatibility with a variety of devices and platforms.
- Detailed feedback and analysis of students' performance.

Should Have:

- Multiplayer capability for collaborative exercises.
- Integration with external systems for enhanced realism.

- Realistic simulation of weather and environmental conditions.

Could Have:

- Simulation of a wide range of educational resources and tools.

- Realistic simulation of subject-specific tools and equipment.

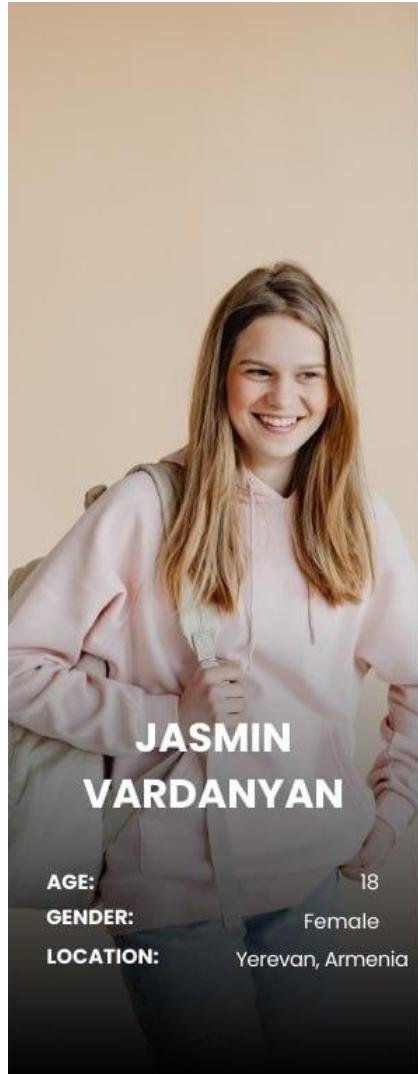
Won't Have:

- Simulation of non-educational scenarios beyond the platform's scope.

2.Implementation

User Behavior study

The personas description for Users



**JASMIN
VARDANYAN**

AGE: 18
GENDER: Female
LOCATION: Yerevan, Armenia

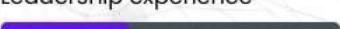
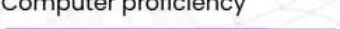
ABOUT

I AM A BRIGHT AND ENTHUSIASTIC PUPIL WITH A ZEST FOR LEARNING AND EXPLORING NEW OPPORTUNITIES. CURRENTLY ENROLLED AT SCHOOL AFTER SILVA KAPUTIKYAN, I AM EAGER TO MAKE THE MOST OF MY EDUCATIONAL JOURNEY AND DISCOVER MY PASSIONS ALONG THE WAY.

GOAL

- Every day I aim to greet each opportunity with excitement and a thirst for knowledge. My goal is to do in my studies delve into my passions and make an impact on my school community by nurturing curiosity, compassion and perseverance, throughout the journey.

SKILLS

- Communication
A horizontal progress bar filled with purple, representing a moderate level of proficiency.
- Leadership experience
A horizontal progress bar filled with purple, representing a moderate level of proficiency.
- Computer proficiency
A horizontal progress bar filled with purple, representing a moderate level of proficiency.

PERSONALITY

Analytical



Problem-Solving



Public Speaking



Adaptable



PAIN POINT

- As a student in Yerevan, I often find myself overwhelmed by the plethora of educational apps and platforms available. While Educonnect promises to streamline various aspects of student life, the complexity of managing yet another digital tool may add to my already busy schedule.

FAVORITE BRAND



User persona – Jasmin Vardanyan

The persona description for Customers



ABOUT

TEACHING ENGLISH IS WHAT I AM PASSIONATE ABOUT. 10 YEARS AS AN ESOL EDUCATOR HAS GIVEN ME EXPERIENCE ON THIS SUBJECT. LITERATURE AND LANGUAGE HAVE ALWAYS BEEN MY LOVING SOURCE OF INSPIRATION DURING MY TEACHING CAREER. MY PHILOSOPHY IN THE CLASSROOM IS TO CREATE A FRIENDLY LEARNING ATMOSPHERE WHERE LEARNERS CAN EXPRESS THEMSELVES WITHOUT FEAR IN ENGLISH.

GOAL

- All my students, irrespective of their initial level, are to become proficient in English as a second language for that matter. I wish to assist them so that they can speak, listen, read and write with fluency, accuracy and confidence.

SKILLS

Communication

Leadership experience

Computer proficiency

PERSONALITY

Analytical



Problem-Solving



Public Speaking



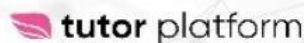
Adaptable



PAIN POINT

- I have always had difficulties finding specialized academic materials for teaching students.
 - Pupils, on their part, find it very hard to get personalized support and guidance for their academic requirements which in turn makes them have less effective learning experiences.

FAVORITE BRAND



User persona – Ashot Poghosyan

User Story for the Educonnect

Jasmin Vardanyan's story:

As a student enrolled in university courses, I want to utilize the Educonnect app to streamline my academic experience and enhance my learning outcomes. I aim to efficiently manage my course materials, including notes, lectures, and assignments, within the app. Additionally, I desire access to a diverse range of educational resources, such as textbooks, articles, and study guides, to supplement my learning. With Educonnect, I expect to easily organize my schedule, set reminders for important deadlines, and efficiently plan my study sessions. Furthermore, I seek opportunities for collaboration with peers, including joining study groups, sharing resources, and engaging in discussions within the app. By leveraging Educonnect, I anticipate improving my academic performance, enhancing my understanding of course materials, and ultimately achieving academic success.

Ashot Poghosyan's story:

"As a tutor offering educational services, I want to utilize the Educonnect app to connect with students seeking academic support and expand my tutoring business. I aim to create a profile within the app, showcasing my expertise, qualifications, and teaching style effectively. Additionally, I desire access to a platform where I can advertise my tutoring services and reach a larger audience of potential students. With Educonnect, I expect to receive notifications about tutoring requests from students in need of assistance in specific subjects or topics. Furthermore, I seek tools and resources within the app to schedule tutoring sessions, communicate with students, and track progress. By leveraging Educonnect, I anticipate growing my tutoring clientele, establishing meaningful connections with students, and making a positive impact on their academic journey."

3. Software Requirements Specifications'(SRS) for the Educonnect

Introduction.

3.1.1 Purpose.

Purpose of Educonnect: Transforming Education, Empowering Students

The purpose of Educonnect is to revolutionize the educational experience for students by providing a comprehensive and integrated platform that empowers them to succeed academically and beyond.

In today's fast-paced and digitally-driven world, students face numerous challenges in managing their academic workload, accessing resources, and planning their future careers. Educonnect aims to address these challenges by offering a multifaceted solution that combines note-taking, scheduling, career planning, and collaborative learning tools into a single, user-friendly platform.

By centralizing essential academic and career-related activities, Educonnect simplifies the student experience, enabling users to efficiently manage their studies, connect with peers, and access resources anytime, anywhere. Whether it's organizing lecture notes, scheduling study sessions, seeking academic assistance, or exploring career opportunities, Educonnect provides students with the tools they need to thrive academically and prepare for success in the workforce.

At its core, Educonnect is driven by a commitment to innovation, accessibility, and student empowerment. By harnessing the power of technology and leveraging user-centric design principles, we aspire to create a transformative educational platform that equips students with the knowledge, skills, and confidence to pursue their academic and career goals with excellence

3.1.2 Document Conventions.

1. Formatting Standards:

- All documents related to Educonnect follow a consistent formatting style to ensure clarity and readability.
- Headings and subheadings are formatted using a clear hierarchy for easy navigation and comprehension.
- Font style, size, and color are standardized across all documents to maintain uniformity.

2. Language and Terminology:

- Language used in documents is concise, professional, and free from jargon or technical language that may be unclear to the target audience.
- Terminology specific to the education technology industry is defined and used consistently throughout the documentation.

3. Version Control:

- Documents are version-controlled to track changes, revisions, and updates over time.
- Each document includes a version number and date to indicate its current status and any revisions made.

4. References and Citations:

- Proper referencing and citations are used for any external sources, research findings, or data included in the documents.
- References are provided in a standardized format, following a recognized citation style (e.g., APA, MLA).

5. Document Structure:

- Documents are structured logically, with clear sections and subsections to organize content effectively.
- Each document includes a table of contents (where applicable) to facilitate easy navigation.

6. Review and Approval Process:

- All documents undergo a review and approval process before finalization to ensure accuracy, completeness, and compliance with project requirements.
- Feedback from stakeholders and team members is incorporated into documents as needed to address any issues or concerns.

7. Accessibility Considerations:

- Documents are designed with accessibility in mind, ensuring that content is easily accessible to all users, including those with disabilities.
- Where applicable, documents are provided in alternative formats to accommodate diverse user needs.

8. Consistency and Standardization:

- Consistent formatting, language, and terminology are maintained across all documents related to Educonnect.
- Templates and style guides are used to enforce consistency and standardization in document creation and formatting.

By adhering to these document conventions, we ensure that all materials related to Educonnect are of high quality, accuracy, and professionalism, ultimately contributing to the success of the project.

3.1.4 Product Scope.

The product scope for Educonnect encompasses the features, functionalities, and objectives of the Educonnect platform. It defines the boundaries and deliverables of the project, outlining what will be included and what will be excluded from the platform. The scope is designed to meet the needs of students, educators, and educational institutions while aligning with the overall vision and goals of the project.

Included Features and Functionalities:

1. Note-taking Tools:

- Comprehensive digital note-taking capabilities to allow students to create, organize, and access their study materials efficiently.

2. Scheduling and Calendar Management:

- Integrated calendar and scheduling features to help students manage their academic deadlines, classes, exams, and extracurricular activities effectively.

3. Career Planning Resources:

- Tools and resources to assist students in exploring career paths, setting career goals, and accessing job search resources, internships, and mentorship opportunities.

4. Collaborative Learning Platform:

- Online collaboration tools such as discussion forums, study groups, and peer-to-peer tutoring functionalities to facilitate collaborative learning experiences among students.

5. Resource Library:

- Access to a comprehensive library of educational resources, including textbooks, lecture materials, video tutorials, and interactive learning modules.

6. Job Application Support:

- Features to help students create and manage their resumes, cover letters, and job profiles, as well as apply for internships, part-time jobs, and volunteer opportunities directly through the platform.

7. Map of Coworking Spaces:

- Integration with mapping services to provide students with information about nearby coworking spaces and study hubs in their area.

Excluded Features and Functionalities:

1. Full-fledged Social Networking:

- While Educonnect facilitates collaboration among students, it does not aim to replicate the features of social networking platforms such as Facebook or Instagram.

2. In-depth Career Counseling Services:

- Educonnect provides resources and guidance for career planning, but it does not offer personalized career counseling services typically provided by professional career counselors.

3. Real-time Tutoring Services:

- While Educonnect supports peer-to-peer tutoring and collaboration, it does not offer real-time tutoring services provided by professional tutors.

4. Non-Academic Content:

- The focus of Educonnect is primarily on academic and career-related functionalities, and it does not include features unrelated to education and professional development.

By defining the product scope, Educonnect aims to ensure clarity, focus, and alignment with user needs and project objectives. It provides a clear roadmap for development efforts and helps manage stakeholder expectations throughout the project lifecycle.

Overall Description.

Product Perspective.

Overall Description:

Educonnect is a comprehensive educational platform designed to revolutionize the way students engage with their academic studies, career planning, and collaborative learning activities. Positioned as a central hub for students to manage their academic endeavors and career aspirations, Educonnect integrates a diverse range of features and functionalities to streamline the educational experience.

Product Perspective:

Educonnect serves as an innovative solution within the education technology landscape, offering a unique combination of tools and resources to support students at every stage of their academic journey. From note-taking and scheduling to career planning and collaborative learning, Educonnect provides a holistic platform that addresses the multifaceted needs of students in today's digital age.

From a broader perspective, Educonnect operates within the context of the evolving educational landscape, where technological advancements and changing learning paradigms are reshaping traditional approaches to education. As a digital platform, Educonnect leverages emerging technologies and user-centric design principles to enhance the accessibility, efficiency, and effectiveness of the educational experience for students worldwide.

Furthermore, Educonnect recognizes the interconnected nature of education and career development, positioning itself as a bridge between academic learning and professional success. By integrating career planning resources and job application support directly into the platform, Educonnect empowers students to make informed decisions about their future career paths and equips them with the tools they need to succeed in the workforce.

Overall, within the broader context of the education technology landscape, Educonnect stands as a forward-thinking solution that aims to empower students, enhance learning outcomes, and foster a culture of collaboration and innovation in education.

Product Functions.

1. Note-taking and Organization:

- Users can create, edit, and organize digital notes for lectures, readings, and study materials.
- Note-taking features include text formatting, highlighting, and the ability to attach multimedia files.

2. Scheduling and Calendar Management:

- Users can schedule classes, exams, study sessions, and other academic activities using an integrated calendar.

- Reminders and notifications ensure users stay on top of upcoming deadlines and events.

3. Career Planning and Job Search:

- Educonnect provides resources and guidance for career exploration, goal setting, and professional development.
- Users can create and manage their resumes, cover letters, and job profiles, and apply for internships, part-time jobs, and volunteer opportunities directly through the platform.

4. Collaborative Learning Tools:

- Users can join discussion forums, study groups, and peer-to-peer tutoring sessions to collaborate with classmates and peers.
- Features include real-time chat, file sharing, and collaborative document editing.

5. Resource Library:

- Educonnect offers access to a comprehensive library of educational resources, including textbooks, lecture materials, video tutorials, and interactive learning modules.
- Users can search, browse, and bookmark resources for easy access.

6. Map of Coworking Spaces:

- Integration with mapping services provides users with information about nearby coworking spaces, study hubs, and educational resources centers.
- Users can search for locations based on proximity, amenities, and user ratings.

7. Feedback and Performance Analysis:

- Educonnect provides users with detailed feedback and analysis on their academic performance, study habits, and learning progress.
- Users can track their performance metrics, such as grades, attendance, and study time, and receive personalized recommendations for improvement.

8. Customization and Personalization:

- Users can customize their Educonnect experience by setting preferences, themes, and notifications according to their individual needs and preferences.
- Personalized dashboards and user profiles allow users to tailor their experience and access relevant information quickly.

9. Accessibility Features:

- Educonnect incorporates accessibility features to ensure that users of all abilities can access and use the platform effectively.
- Features include screen reader compatibility, keyboard navigation, and adjustable font sizes.

10. Security and Privacy Controls:

- Educonnect prioritizes the security and privacy of user data, implementing robust encryption, authentication,

User Classes and Characteristics.

1. Students

- Characteristics:

- Enrolled in educational institutions (e.g., universities, colleges, schools).
- Seek assistance with studying, organizing academic materials, and planning their academic schedules.
- Range in age, educational level, and academic goals.

- Needs:

- Access to study materials, resources, and educational content.
- Tools for note-taking, scheduling, and task management.
- Collaboration features for group projects and study sessions.

2. Tutors:

- Characteristics:

- Educators or subject matter experts offering tutoring or academic support services.
- Have expertise in specific subjects or areas of study.
- Offer personalized assistance and guidance to students.

- Needs:

- Platform to advertise tutoring services and connect with potential students.
- Tools for scheduling tutoring sessions, managing appointments, and tracking student progress.
- Access to resources and materials to support teaching and learning.

3. Employers:

- Characteristics:

- Organizations or individuals offering employment opportunities.
- Seek qualified candidates to fill job vacancies or internship positions.
- Have specific criteria and requirements for hiring candidates.

- Needs:

- Access to a pool of potential candidates with diverse skills and qualifications.
- Tools for posting job listings, managing applications, and screening candidates.
- Features for communicating with applicants, scheduling interviews, and making hiring decisions.

4. Educational Institutions:

- Characteristics:

- Schools, colleges, universities, or training centers providing educational services.
- Have administrative staff, instructors, and students.
- Offer a variety of academic programs and courses.

- Needs:

- Platform to facilitate communication and collaboration among students, instructors, and administrators.
- Tools for managing course materials, assignments, grades, and student records.
- Features for monitoring student progress, identifying at-risk students, and providing support interventions.

5. Administrators:

- Characteristics:

- Individuals responsible for managing and overseeing the Educonnect platform.
- Have administrative privileges and access to platform settings and configurations.

- Needs:

- Tools for user management, access control, and permissions management.
- Features for monitoring platform usage, performance, and security.
- Support for maintaining compliance with regulatory requirements and data protection standards.

Understanding the characteristics and needs of these user classes helps ensure that Educonnect meets the diverse requirements of its users and provides a tailored experience to support their academic and professional goals.

Operating Environment

Educonnect operates within a diverse digital landscape, accommodating various devices, platforms, and connectivity options to ensure accessibility and usability for its users. The operating environment encompasses:

1. Web-Based Platform:

- Accessible through modern web browsers such as Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge.
- Compatible with desktop computers, laptops, and tablets running on different operating systems (e.g., Windows, macOS, Linux).

2. Mobile Applications:

- Available as native mobile applications for iOS and Android devices, accessible through the Apple App Store and Google Play Store.
- Optimized for smartphones and tablets to provide a seamless user experience on smaller screens.

3. Internet Connectivity:

- Requires internet connectivity for accessing online features, resources, and real-time updates.
- Supports both wired and wireless connections, including Wi-Fi, cellular data, and broadband.

4. Cross-Platform Compatibility:

- Ensures consistent performance and functionality across different devices, browsers, and operating systems.
- Adapts to various screen sizes, resolutions, and input methods to accommodate user preferences and device capabilities.

5. Cloud Infrastructure:

- Hosted on cloud-based servers to ensure scalability, reliability, and accessibility from anywhere with an internet connection.

- Utilizes cloud storage for storing user data, documents, and media files securely.

6. Security Measures:

- Implements encryption, authentication, and access controls to protect user data and ensure confidentiality, integrity, and availability.
- Complies with industry standards and best practices for data security and privacy, including GDPR, HIPAA, and ISO/IEC 27001.

7. Accessibility Standards:

- Adheres to accessibility guidelines such as WCAG (Web Content Accessibility Guidelines) to ensure the platform is usable by individuals with disabilities.
- Provides features for screen reader compatibility, keyboard navigation, and alternative text for multimedia content.

8. Offline Functionality:

- Offers limited offline functionality for certain features, allowing users to access cached data and perform basic tasks without an internet connection.
- Syncs data automatically once connectivity is restored to ensure data consistency across devices.

By operating within this versatile environment, Educonnect aims to provide users with a seamless and responsive experience, enabling them to access educational resources, collaborate with peers, and manage their academic responsibilities effectively, regardless of their device or location.

Design and Implementation Constraints

1. Cross-Platform Compatibility:

- Designing and implementing features that are compatible across various operating systems, browsers, and devices may pose challenges due to differences in technology standards and platform capabilities.

2. Internet Connectivity:

- Dependency on internet connectivity for accessing online features and resources may limit usability in areas with poor or unreliable internet connections, requiring offline functionality to mitigate these constraints.

3. Device Limitations:

- Ensuring optimal performance and user experience across a wide range of devices with varying screen sizes, resolutions, and processing power may require careful optimization and adaptation of user interfaces and functionalities.

4. Security and Privacy Regulations:

- Compliance with data protection regulations (e.g., GDPR, HIPAA) imposes constraints on data handling, storage, and transmission, necessitating robust security measures and privacy controls to protect user information.

5. Third-Party Integrations:

- Integration with external systems (e.g., mapping services, job boards) may be subject to constraints imposed by third-party providers, such as API limitations, licensing agreements, and availability of features.

6. Scalability and Performance:

- Designing for scalability to accommodate growing user bases and increasing data loads may require architectural considerations, resource allocation, and optimization strategies to maintain performance under varying usage patterns.

7. Accessibility Standards:

- Compliance with accessibility standards such as WCAG (Web Content Accessibility Guidelines) may impose constraints on design and implementation, requiring features such as keyboard navigation, screen reader compatibility, and alternative text for multimedia content.

8. Localization and Internationalization:

- Supporting multiple languages, cultural preferences, and regional requirements may introduce complexities in design and implementation to ensure linguistic and cultural appropriateness, requiring translation and localization efforts.

9. Budget and Resource Constraints:

- Budgetary limitations and resource constraints (e.g., time, personnel) may impact the scope, timeline, and quality of design and implementation efforts, requiring careful prioritization and resource management.

10. Legacy System Integration:

- Integration with existing legacy systems within educational institutions (e.g., student information systems, learning management systems) may pose challenges in data synchronization, interoperability, and compatibility, requiring coordination and collaboration with stakeholders.

By identifying and addressing these constraints during the design and implementation phases, Educonnect aims to deliver a robust, secure, and user-friendly platform that meets the needs of its users while adhering to regulatory requirements and industry standards.

User Documentation

1. User Manual:

- A comprehensive guide detailing the features, functionalities, and usage instructions of Educonnect, catering to users of all levels of expertise.

2. Getting Started Guide:

- Step-by-step instructions to help new users set up their accounts, navigate the platform, and utilize basic features to get started with Educonnect quickly.

3. FAQs and Troubleshooting:

- Collection of frequently asked questions and troubleshooting tips to address common user queries, technical issues, and error messages encountered while using Educonnect.

4. Video Tutorials:

- Library of instructional videos demonstrating key features, workflows, and best practices for using Educonnect effectively, appealing to visual learners and providing a more engaging learning experience.

5. Interactive Help Resources:

- Interactive guides, tooltips, and contextual help within the Educonnect interface to provide on-demand assistance and guidance to users as they navigate the platform.

6. Community Forums:

- Online forums and discussion boards where users can interact with each other, share tips and tricks, ask questions, and collaborate on solutions to common challenges related to Educonnect.

7. Release Notes and Updates:

- Documentation of new features, enhancements, bug fixes, and other updates introduced in each version of Educonnect, keeping users informed about changes and improvements to the platform.

8. Accessibility Guidelines:

- Documentation outlining accessibility features and guidelines for users with disabilities, providing instructions on how to customize settings and utilize accessibility tools within Educonnect.

9. User Privacy Policy:

- Explanation of how Educonnect collects, uses, and protects user data, along with details on user rights, consent mechanisms, and data security measures implemented to ensure compliance with privacy regulations.

10. Feedback Channels:

- Channels for users to provide feedback, suggestions, and feature requests to the Educonnect development team, facilitating continuous improvement and user-driven innovation.

By providing comprehensive user documentation, Educonnect aims to empower users with the knowledge and resources they need to make the most of the platform, enhance their learning experience, and achieve their academic goals effectively and efficiently.:

Assumptions and Dependencies

1. Internet Connectivity:

- Assumption: Users have reliable internet access to utilize Educonnect's online features and resources.
- Dependency: Dependent on internet service providers and network infrastructure for uninterrupted connectivity.

2. Device Compatibility:

- Assumption: Users have compatible devices (e.g., computers, smartphones, tablets) to access Educonnect.
- Dependency: Dependent on device manufacturers and operating system providers for compatibility and support.

3. User Skills and Proficiency:

- Assumption: Users possess basic digital literacy skills to navigate and utilize Educonnect's features.
- Dependency: Dependent on user training, education, and support to enhance skills and proficiency.

4. Third-Party Integrations:

- Assumption: Integration with external systems (e.g., mapping services, job boards) operates smoothly and as intended.
- Dependency: Dependent on third-party providers' API availability, reliability, and compatibility.

5. Data Privacy and Security:

- Assumption: Educonnect's data privacy and security measures effectively protect user information and comply with relevant regulations.
- Dependency: Dependent on robust encryption, access controls, and adherence to privacy policies to safeguard user data.

6. Scalability and Performance:

- Assumption: Educonnect's infrastructure can scale to accommodate growing user bases and increasing data loads.

- Dependency: Dependent on server capacity, resource allocation, and optimization strategies to maintain performance under varying usage patterns.

7. Regulatory Compliance:

- Assumption: Educonnect complies with relevant laws, regulations, and industry standards governing data protection, accessibility, and user rights.
- Dependency: Dependent on ongoing monitoring, updates, and adherence to evolving regulatory requirements.

8. User Engagement and Adoption:

- Assumption: Users are motivated and engaged to actively use Educonnect for their educational needs.
- Dependency: Dependent on user awareness, engagement strategies, and incentives to promote adoption and usage of the platform.

9. Feedback and Iterative Improvement:

- Assumption: User feedback is collected and acted upon to continuously improve and enhance Educonnect's features and user experience.
- Dependency: Dependent on user participation, feedback mechanisms, and development resources to implement iterative improvements.

10. Financial Sustainability:

- Assumption: Educonnect's revenue model (e.g., subscriptions, advertisements) ensures financial sustainability to support ongoing development, maintenance, and growth.
- Dependency: Dependent on market demand, revenue generation strategies, and business operations to sustain long-term viability and growth.

By acknowledging these assumptions and dependencies, Educonnect can effectively plan, develop, and deploy its platform while mitigating risks and ensuring alignment with user needs and expectations.

4.Demo version and Minimum Valuable Product (MVP) presentation for the Educonnect

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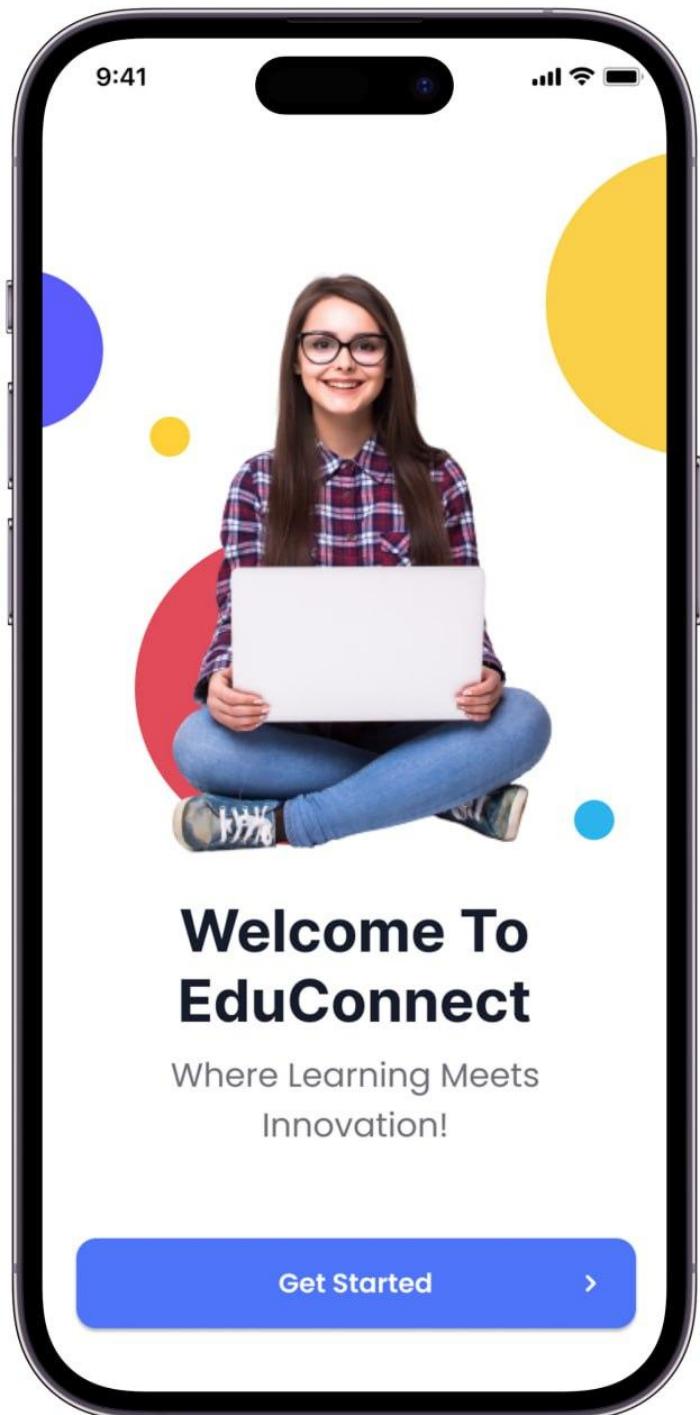
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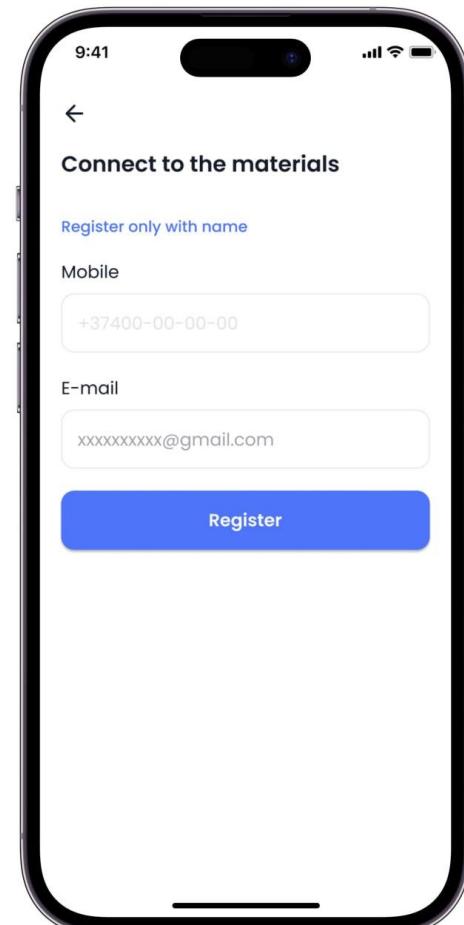
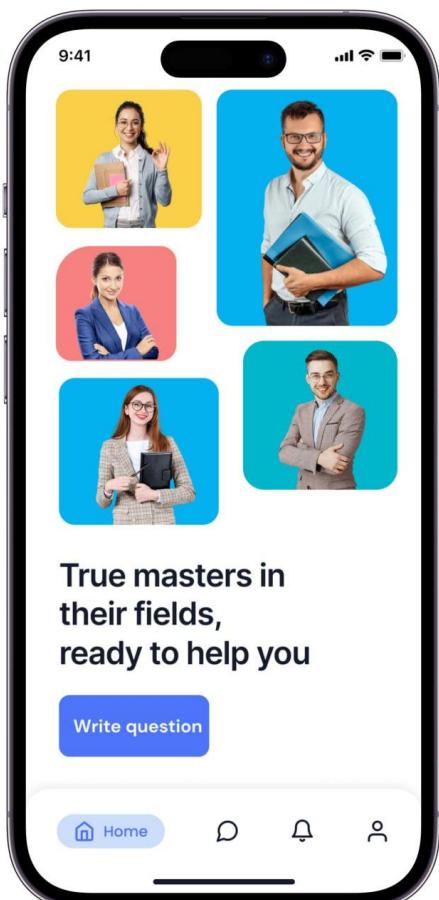
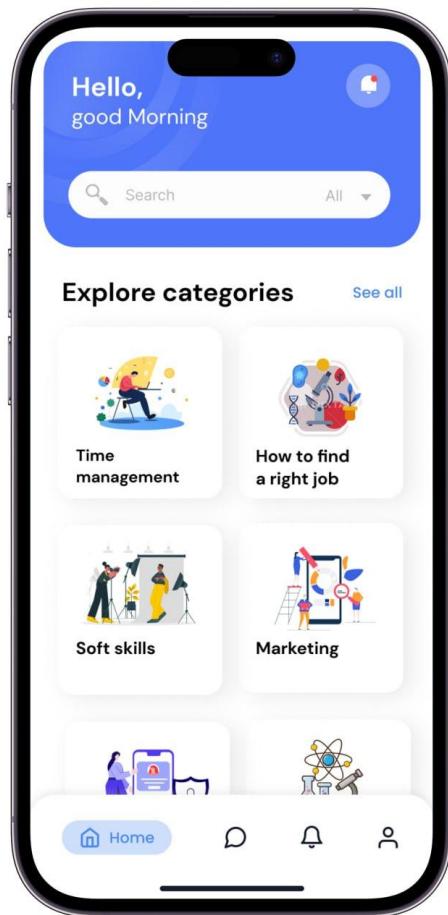
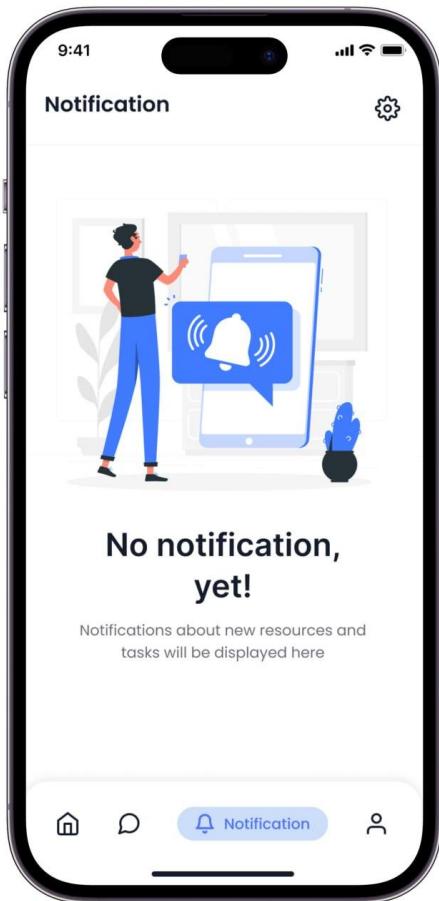
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5.Lessons learned during implementation

During the implementation of Educonnect, several valuable lessons were learned that have contributed to the project's success and continuous improvement:

1. User-Centric Design: Prioritizing user needs and preferences is paramount. User feedback and usability testing played a crucial role in refining the platform's features and interface to ensure a seamless and intuitive user experience.
2. Agile Development Approach: Embracing an agile development methodology allowed for iterative development cycles, enabling rapid prototyping, feedback incorporation, and adaptation to evolving requirements. This approach facilitated flexibility and responsiveness to changing user needs and market dynamics.
3. Effective Communication: Clear and open communication among team members, stakeholders, and users fostered collaboration, transparency, and alignment of goals throughout the development process. Regular status updates, meetings, and feedback sessions helped maintain momentum and resolve issues promptly.
4. Adaptability to Challenges: The ability to adapt to unforeseen challenges and obstacles, such as technical issues, resource constraints, and scope changes, proved essential. Agile mindset and problem-solving skills were instrumental in overcoming hurdles and keeping the project on track.
5. Continuous Learning and Improvement: Embracing a culture of continuous learning and improvement allowed the team to grow and enhance their skills, knowledge, and capabilities. Post-implementation reviews, retrospectives, and knowledge sharing sessions facilitated reflection and identified areas for enhancement.
6. Quality Assurance and Testing: Prioritizing quality assurance and testing processes helped identify and address bugs, usability issues, and performance bottlenecks early in the development lifecycle. Rigorous testing, including unit tests, integration tests, and user acceptance testing, ensured the reliability and stability of the platform.
7. Scalability and Future-Proofing: Considering scalability and future-proofing aspects from the outset enabled the platform to accommodate growing user bases, evolving technologies, and changing market trends. Scalable architecture, modular design, and forward-looking development practices laid the foundation for long-term success.
8. User Training and Support: Providing comprehensive user training and ongoing support resources proved crucial for user adoption and satisfaction. Educational materials, tutorials, and responsive customer support channels empowered users to leverage Educonnect effectively and address any challenges they encountered.

9. Feedback Incorporation: Actively soliciting and incorporating user feedback into the development process facilitated alignment with user expectations and preferences. Continuous engagement with users through surveys, feedback forms, and user forums helped identify opportunities for improvement and innovation.

10. Celebrating Milestones: Recognizing and celebrating project milestones, achievements, and successes boosted team morale, motivation, and cohesion. Acknowledging individual and collective contributions fostered a positive work environment and reinforced a sense of accomplishment.

By embracing these lessons learned, Educonnect continues to evolve and thrive as a leading educational platform, delivering value to users and driving positive impact in the education sector.

Conclusion

In conclusion, the development and implementation of Educonnect have been a transformative journey, marked by innovation, collaboration, and dedication to enhancing the educational experience for users. Through user-centric design, agile development practices, and a commitment to continuous improvement, Educonnect has evolved into a robust and versatile platform that empowers students, tutors, employers, and educational institutions alike.

By leveraging technology to facilitate access to educational resources, streamline academic processes, and foster collaboration and engagement, Educonnect has made significant strides in bridging gaps in learning and facilitating lifelong learning opportunities. The platform's user-friendly interface, comprehensive features, and commitment to accessibility and security have earned it the trust and loyalty of users across diverse educational contexts.

As we reflect on the achievements and lessons learned throughout the journey of developing Educonnect, we are inspired by the positive impact it has had on users' lives and the broader educational landscape. Looking ahead, we remain committed to innovation, excellence, and meeting the evolving needs of our users, as we continue to strive towards our mission of transforming education and empowering learners worldwide.

In closing, we express our gratitude to all stakeholders, team members, and users who have contributed to the success of Educonnect. Together, we look forward to a future filled with continued growth, learning, and positive change in the realm of education.

Annex 1 Tools used during Project SA

- 1)bubble.io(for MVP)
- 2)canva.com(for business model and persona examples)
- 3)scholar.google.com(as search engine)
- 4)brandcrowd.com(for making logo)

Annex 2 Weekly reports

1. Daily Planning Meetings:

- Hold daily planning meetings to discuss project objectives, review progress made, and outline tasks for the day. Focus on refining project requirements, creating documentation, and defining project scope.(everyone was involved)

2. Requirement Analysis and Documentation:

- Spend time analyzing project requirements in detail and documenting them thoroughly. This includes creating user stories, defining features, and outlining system specifications. .(everyone was involved)

3. Research and Exploration:

- Conduct research on relevant technologies, frameworks, and tools that could potentially be used in the project. Explore different approaches and solutions to address project challenges and requirements.9Gor Babayan)

4. Wireframing and Prototyping:

- Create wireframes and prototypes to visualize the user interface and user experience of the Educonnect app. Iterate on design concepts and gather feedback from team members and stakeholders.(Gor Babayan,Vaxarshak Nadaryan)

5. User Persona Development:

- Develop detailed user personas representing the different types of users who will interact with the Educonnect app. Consider their needs, goals, and pain points to inform the design and development process.(Sergey Mkrtchyan)

6. Market Analysis and Competitive Research:

- Conduct market analysis and competitive research to understand the educational technology landscape, identify competitors, and uncover opportunities for differentiation and innovation.(Sofi Davtyan)

7. Risk Identification and Mitigation:

- Identify potential risks and challenges that may arise during the project lifecycle. Develop strategies to mitigate risks and minimize their impact on project progress and outcomes. .(everyone was involved)

8. Documentation Review

- Review existing project documentation, including requirements documents, design documents, and project plans.
. (everyone was involved)