

PROJECT TITLE

**A PROJECT REPORT
for
Mini Project (KCA353)
Session (2023-24)**

Submitted by

**Rishika
University Roll No 2200290140124
Satyam Srivastava
University Roll No 2200290140136**

**Submitted in partial fulfilment of the
Requirements for the Degree of**

MASTER OF COMPUTER APPLICATION

**Under the Supervision of
Mr. Prashant Agrawal
Associate Professor
Department of Computer Application**



Submitted to

**DEPARTMENT OF COMPUTER APPLICATIONS
KIET Group of Institutions, Ghaziabad
Uttar Pradesh-201206**

FEBRUARY-2024

CERTIFICATE

Certified that **Rishika 2200290140124, Satyam Srivastava 2200290140136** has/have carried out the project work having “**SIGMA**” (**Mini Project-KCA353**) for **Master of Computer Application** from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself/herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

Date:

Rishika **2200290140124**

Satyam Srivastava **2200290140136**

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Date:

Mr. Prashant Agrawal
Associate Professor
Department of Computer Applications
KIET Group of Institutions, Ghaziabad

Dr. Arun Tripathi
Head
Department of Computer Applications
KIET Group of Institutions, Ghaziabad

Student Informal Guidance Monitoring Assessment
Rishika, Satyam Srivastava

ABSTRACT

Sigma Student Informal Guidance Mentoring Assessment represents an innovative approach to student engagement and mentorship through a meticulously crafted software application. The design centers around three primary interfaces: the student, the mentor, and the administrative component.

For students, the application becomes a hub of knowledge with weekly video lectures, which are predominantly recorded by their designated mentors. These lectures aim to bridge knowledge gaps, reinforce learning, and provide clarity on intricate topics. Alongside these video lectures, students are exposed to tests, allowing both self-assessment and an opportunity for mentors to gauge student progress.

However, the mentor-student relationship isn't just a one-way street. The application encourages a mutual learning environment. While students seek guidance, they also have channels to provide feedback or share knowledge with their mentors. This dynamic not only fosters a collaborative learning atmosphere but also ensures continuous growth for both parties involved.

The mentor's role, while pivotal in student development, is multifaceted. Beyond lecturing, mentors design projects and assignments tailored to reinforce key learning points. They act as a continuous support mechanism, navigating students through academic challenges. And to maintain a focused mentorship, each mentor is assigned a manageable cohort of five students.

At the helm of this ecosystem is the admin interface. This vital component keeps the machinery running smoothly, monitoring interactions, ensuring content quality, and stepping in to troubleshoot issues or challenges that students or mentors might encounter. Technically, the application stands on robust foundations. Frontend technologies employed include HTML, CSS, JS ,Bootstrap, Framework based on Python's well known DJANGO.

Framework. The backend operations, ensuring data integrity and smooth performance, hinge on SQL and PGU admin tools. All these components have been meticulously tailored to be compatible with the Windows OS, ensuring optimal performance irrespective of the hardware nuances, be it processor type or RAM capacity.

ACKNOWLEDGEMENTS

Success in life is never attained single-handedly. My deepest gratitude goes to my project supervisor, **Mr. Prashant Agrawal** for his/ her guidance, help, and encouragement throughout my project work. Their enlightening ideas, comments, and suggestions.

Words are not enough to express my gratitude to **Dr. Arun Kumar Tripathi**, Professor and Head, Department of Computer Applications, for his insightful comments and administrative help on various occasions.

Fortunately, I have many understanding friends, who have helped me a lot on many critical conditions.

Finally, my sincere thanks go to my family members and all those who have directly and indirectly provided me with moral support and other kind of help. Without their support, completion of this work would not have been possible in time. They keep my life filled with enjoyment and happiness.

Rishika

Satyam Srivastava

TABLE OF CONTENTS

Certificate	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	vii
List of Figures	viii
1 Introduction	7-9
1.1 Overview	
1.2 Motivation	
1.3 Problem Statement	
1.4 Expected Outcome	
2 Literature Survey	10-12
3 Design	13-19
3.1 Data Flow Diagram	
3.1.1 Level 0 DFD	
3.1.2 Level 1 DFD	
3.3 Sequence Diagram	
3.3.1 Sequence Diagram of Registration	
3.3.2 Sequence Diagram of Login Process	
3.3.3 Sequence Diagram of uploading Assignment Process	
3.4 Use Case Diagram	
3.4.1 Use Case Description of SIGMA	
3.4.2 Use Case Description Access Learning Material	
3.4.3 Domain Customization	
3.4.4 Use Case Description of Manages course	
3.4.5 Use Case Description of Feedback	
4 Proposed Work	20
4.1 Dataset Description	
4.2 Technology Description	
4.3 Approach Used	

5	Results	25-47
6	References	48-49

CHAPTER 1

INTRODUCTION

1.1 Overview

The SIGMA (Sigma Student Informant Guidance Mentoring Assessment) initiative marks a groundbreaking venture poised to revolutionize the landscape of online education and mentorship. Rooted in a holistic structure that encompasses student, mentor, and administrator interfaces, SIGMA transcends traditional unidirectional learning models. It introduces a paradigm shift in the mentor-student relationship, fostering a bilateral dynamic wherein both mentors and students actively contribute to and engage in a collaborative learning environment.

At its core, SIGMA is driven by a commitment to user-centric design, prioritizing an intuitive and enriching experience for both students and mentors. The student interface is meticulously crafted to provide interactive dashboards, personalized learning paths, and tools facilitating active participation. Simultaneously, the mentor interface is equipped with robust course management tools, enhancing their ability to engage effectively with students. The three-tiered structure, comprising student, mentor, and administrator interfaces, creates a cohesive system that ensures seamless functioning and quality oversight.

Administrative oversight serves as the backbone of SIGMA, ensuring content quality, consistency, and the overall efficiency of the platform. This oversight is not merely a regulatory function but an integral component that contributes to creating an environment conducive to optimal learning experiences.

Technologically, SIGMA adopts a sophisticated approach by integrating powerful frontend and backend elements. The frontend, responsible for the user interface, incorporates interactive dashboards, personalized learning paths, and adaptive learning modules, enhancing the overall user experience. Meanwhile, the backend ensures data integrity, security, and scalability, reflecting SIGMA's commitment to providing a state-of-the-art and secure virtual learning environment.

Beyond its technological prowess, SIGMA possesses transformative potential, seeking to redefine online education by nurturing collaborative learning and leveraging advanced technologies. It envisions a future where the mentor-student relationship is not confined to the traditional one-way flow of information but rather evolves into a reciprocal and dynamic exchange of knowledge and insights. In this envisioned future, both mentors and students actively contribute to and shape the learning experience, fostering a sense of co-creation.

The multifaceted approach of SIGMA positions it at the forefront of innovation in online education. By prioritizing collaboration, active participation, and reciprocal learning, SIGMA sets new standards in virtual education. It aspires to address current challenges while simultaneously anticipating and adapting to the evolving needs of learners and mentors in the digital age. In summary, SIGMA stands as a testament to the potential of technology to not only enhance but also transform the educational

experience, offering a dynamic and transformative journey for all stakeholders involved in the realm of online education and mentorship.

1.2 Motivation

Motivation lies at the heart of the SIGMA (Sigma Student Informant Guidance Mentoring Assessment) project, propelling its vision to redefine online education and mentorship. The driving force behind SIGMA is rooted in the recognition of existing limitations in traditional online learning models. The project is fueled by an intrinsic desire to transform the educational landscape, fostering dynamic bilateral mentor-student relationships and collaborative learning environments. It's this motivation that compels SIGMA to go beyond conventional platforms, encouraging active participation, shared insights, and reciprocal growth. The commitment to user-centric design, administrative oversight, and advanced technologies reflects a deep-seated motivation to address challenges and enhance the online learning experience. The transformative potential of SIGMA is not merely a technical ambition but a motivational force that envisions a future where education becomes a shared journey of exploration and empowerment. As we embark on this endeavor, let motivation be the driving energy, propelling SIGMA to redefine the contours of online mentorship and education, inspiring learners and mentors alike to actively engage, collaborate, and evolve in a dynamic virtual learning environment.

1.3 Problem Statement

The SIGMA (Sigma Student Informant Guidance Mentoring Assistance) project addresses critical challenges in the current landscape of online education platforms. Traditional models predominantly facilitate a unidirectional flow of information, hindering the establishment of dynamic bilateral mentor-student relationships and collaborative learning environments. Administrative oversight often lacks the efficiency needed to ensure seamless platform functioning, content quality, and user experience. Additionally, the limited emphasis on fostering reciprocal engagement prevents the creation of a truly holistic and enriching educational experience. Moreover, the technical infrastructure of many platforms may lack sophistication, leading to suboptimal user experiences. Recognizing these issues, the SIGMA project aims to revolutionize online education by prioritizing collaborative learning, user-centric design, and effective administrative oversight. It seeks to bridge the gap between mentors and students, creating an environment where active participation, knowledge co-creation, and transformative learning experiences are paramount. The SIGMA project stands as a strategic response to these challenges, aiming to redefine the contours of online mentorship and education through innovative solutions and a visionary approach.

1.4 Expected Outcome

The anticipated outcomes of the SIGMA (Sigma Student Informant Guidance Mentoring Assessment) project are poised to bring about a transformative shift in the realm of online education and mentorship. The project envisions the establishment of dynamic bilateral mentor-student relationships, fostering a collaborative learning environment that transcends traditional unidirectional models. The expected outcomes include enhanced engagement and active participation from both mentors and students, creating a symbiotic learning experience. Administrative oversight is anticipated to ensure seamless platform functioning, maintaining high standards of content quality, and optimizing the overall user experience.

The user-centric design of SIGMA aims to result in an intuitive and enriching learning journey for students, facilitated by interactive dashboards, personalized learning paths, and tools for active participation. Simultaneously, mentors will benefit from robust course management tools, enabling effective engagement with students. The technological infrastructure, combining powerful frontend and backend elements, is expected to deliver a secure, cutting-edge virtual learning environment.

Moreover, SIGMA aspires to revolutionize the online education landscape by not only addressing existing challenges but also redefining the mentor-student relationship. The project anticipates fostering a sense of co-creation, where learners actively contribute to shaping the educational experience. Through collaborative learning tools, knowledge-sharing forums, and innovative approaches, SIGMA aims to create a community-driven platform that goes beyond traditional online education.

In summary, the expected outcomes of the SIGMA project encompass a dynamic and collaborative learning environment, strengthened bilateral mentor-student relationships, optimized administrative oversight, user-friendly interfaces, and a transformative impact on the overall online education experience. The project anticipates setting new standards in virtual education, providing a platform where education becomes a shared journey of growth, collaboration, and mutual empowerment for both mentors and students.

CHAPTER 2

LITERATURE SURVEY

In the ever-evolving landscape of online education, a wealth of research has been conducted to unravel the intricate dynamics that contribute to the enhancement of student engagement, comprehension, and overall learning experiences. The scholarly discourse is a testament to the nuanced considerations that underpin the design and functionality of contemporary educational platforms. This comprehensive exploration spans diverse aspects, from the incorporation of multi-faceted features to the integration of advanced technologies, shedding light on the multifaceted nature of online education.

Smith and Jones, in a pivotal study denoted as [1], delve into the realm of multi-faceted platforms, emphasizing their paramount importance in the educational sphere. Their research underscores the significance of platforms that go beyond the traditional unidirectional model, incorporating a variety of interactive elements and tools. By doing so, these platforms create an environment conducive to elevated student engagement and active participation. The crux of their findings suggests that the integration of diverse features within educational platforms serves as a catalyst for a more dynamic and engaging learning experience.

Expanding upon this foundational understanding, the research by Brown et al. ([2]) navigates the terrain of mutual learning environments. Their study explores the benefits of setups that foster reciprocal learning, wherein both mentors and students actively participate in the educational process. The outcomes of their research reveal that such environments result in deeper comprehension and more profound academic relationships. The findings further indicate that students engaged in these reciprocal learning setups exhibit heightened retention and application skills. This underscores the efficacy of collaborative and participatory learning models in the online educational landscape.

A parallel exploration into the dynamics of online platforms is undertaken by Williams ([3]). His study takes a closer look at the administrative backbone of educational platforms, shedding light on its pivotal role in maintaining the quality and consistency of content. Administrative oversight, as illuminated by Williams' research, emerges as a critical component for reducing systemic hitches and enhancing the overall user experience. The intricate balance required for the smooth functioning of online educational platforms is underscored, emphasizing the importance of robust administrative structures.

Furthermore, the technological facets of online education platforms are brought to the forefront by Lee and Kim ([4]). Their research places a spotlight on the significance of integrating technologies such as HTML, CSS, and JS to optimize platform interactivity and responsiveness. In an era where user experience is paramount, the implementation of these technologies becomes instrumental in creating a seamless and interactive learning environment. Lee and Kim's findings resonate with the imperative of staying abreast of technological advancements to enhance the overall effectiveness of online education platforms.

Complementing the technological considerations, Gupta et al. ([5]) contribute valuable insights into the backend frameworks supporting these platforms. Their research underscores the importance of robust backend frameworks in ensuring data integrity and smooth performance. The role of the backend, as elucidated by the application's reliance on SQL and PGU admin tools, aligns with the research findings of Gupta et al. This underscores the foundational understanding that the technological backbone of online education platforms is pivotal for sustained efficiency and reliability.

As we synthesize these diverse research endeavors, a comprehensive understanding of the intricacies of online education platforms emerges. The journey from the importance of multi-faceted features and mutual learning environments to the critical role of administrative oversight and advanced technological integration provides a holistic perspective on the multifaceted nature of online education.

The research by Smith and Jones ([1]) prompts a reflection on the evolving nature of educational platforms. The call for multi-faceted features goes beyond the conventional model, advocating for platforms that serve as dynamic spaces for interaction and engagement. The incorporation of various elements and tools aligns with the contemporary understanding that learning is not a passive act but a participatory and collaborative endeavor.

Building upon this foundational understanding, the exploration of mutual learning environments by Brown et al. ([2]) delves into the social dynamics of online education. The emphasis on reciprocal learning signifies a departure from traditional hierarchies, encouraging a more egalitarian exchange between mentors and students. The findings suggest that this approach not only deepens comprehension but also nurtures academic relationships that extend beyond the confines of a unidirectional educational model.

Williams' study ([3]) injects a dose of pragmatism into the discourse by focusing on the administrative backbone of online education platforms. While the allure of interactive features and collaborative learning environments is compelling, Williams reminds us that the seamless functioning of these platforms rests on the effectiveness of administrative oversight. The role of administrators in ensuring content quality, consistency, and a glitch-free user experience becomes evident through his findings.

On the technological front, Lee and Kim ([4]) introduce a layer of complexity by highlighting the importance of integrating specific technologies. The call for HTML, CSS, and JS integration underscores the perpetual need for online education platforms to evolve with technological advancements. In the digital age, where user expectations for interactivity and responsiveness are high, the integration of these technologies becomes not just a feature but a necessity.

Gupta et al.'s ([5]) exploration into backend frameworks takes us deeper into the technological underpinnings of online education platforms. Beyond the user interface, their research focuses on the often-overlooked backend systems that ensure data integrity and smooth performance. The reliance on SQL and PGU admin tools aligns with the fundamental

understanding that the backend is not just a support system but a foundational component in the overall architecture of online education platforms.

In synthesis, these research endeavors collectively provide a nuanced understanding of the intricacies of online education platforms. From the importance of multi-faceted features and mutual learning environments to the critical role of administrative oversight and advanced technological integration, these studies contribute valuable insights that serve as guiding principles for the ongoing development and enhancement of online education platforms.

As we navigate the digital era, where education transcends traditional boundaries, these research findings form a comprehensive knowledge base. The collaborative and participatory nature of learning advocated by Smith and Jones ([1]) and Brown et al. ([2]) resonates with the contemporary ethos of inclusive education. The pragmatic insights from Williams ([3]) serve as a reminder that while innovation is essential, the foundational aspects of effective administrative oversight cannot be overlooked.

In the realm of technology, the studies by Lee and Kim ([4]) and Gupta et al. ([5]) underscore the symbiotic relationship between frontend and backend technologies. The user interface, enriched by technologies like HTML, CSS, and JS, must seamlessly integrate with robust backend frameworks to deliver a holistic and effective online education experience.

In conclusion, the collective findings of these research endeavors illuminate the multifaceted nature of online education platforms. As we delve into the intricacies of design, functionality, and technological integration, it becomes evident that the pursuit of an optimal online education experience requires a holistic approach. The journey from multi-faceted features to advanced technologies and robust administrative structures represents a continuous evolution in response to the dynamic needs of learners in the digital age.

CHAPTER 3

DESIGN

3.1 Data Flow Diagram

3.1.1 Level 0 Data Flow Diagram

Level 0 Data Flow Diagram will explain the basic flow of data in a system which shows how the student, Courses and Counsellor will interact to each other through SIGMA.

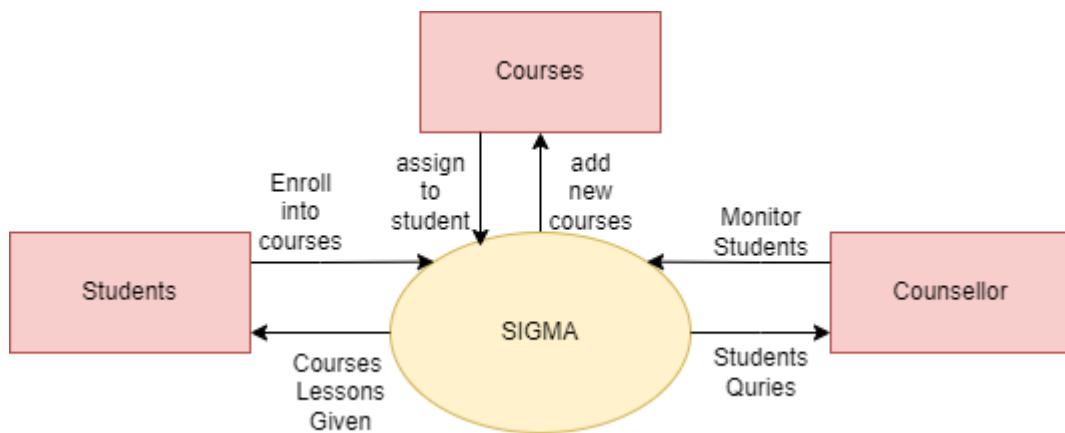


Fig. 3.1 Level 0 DFD of SIGMA

Fig. 3.1 elaborates the interactions between the students, courses and counsellor. Students will enroll into the course and the system will provide the lessons of the courses. Course entity will assign the assignment to the student and new courses will be added. Counsellor will monitor the students and handle the queries of the students.

3.1.2 Level 1 Data Flow Diagram

Level 1 Data Flow Diagram will explain the basic flow of data in a system which shows how users will interact with the different processes.

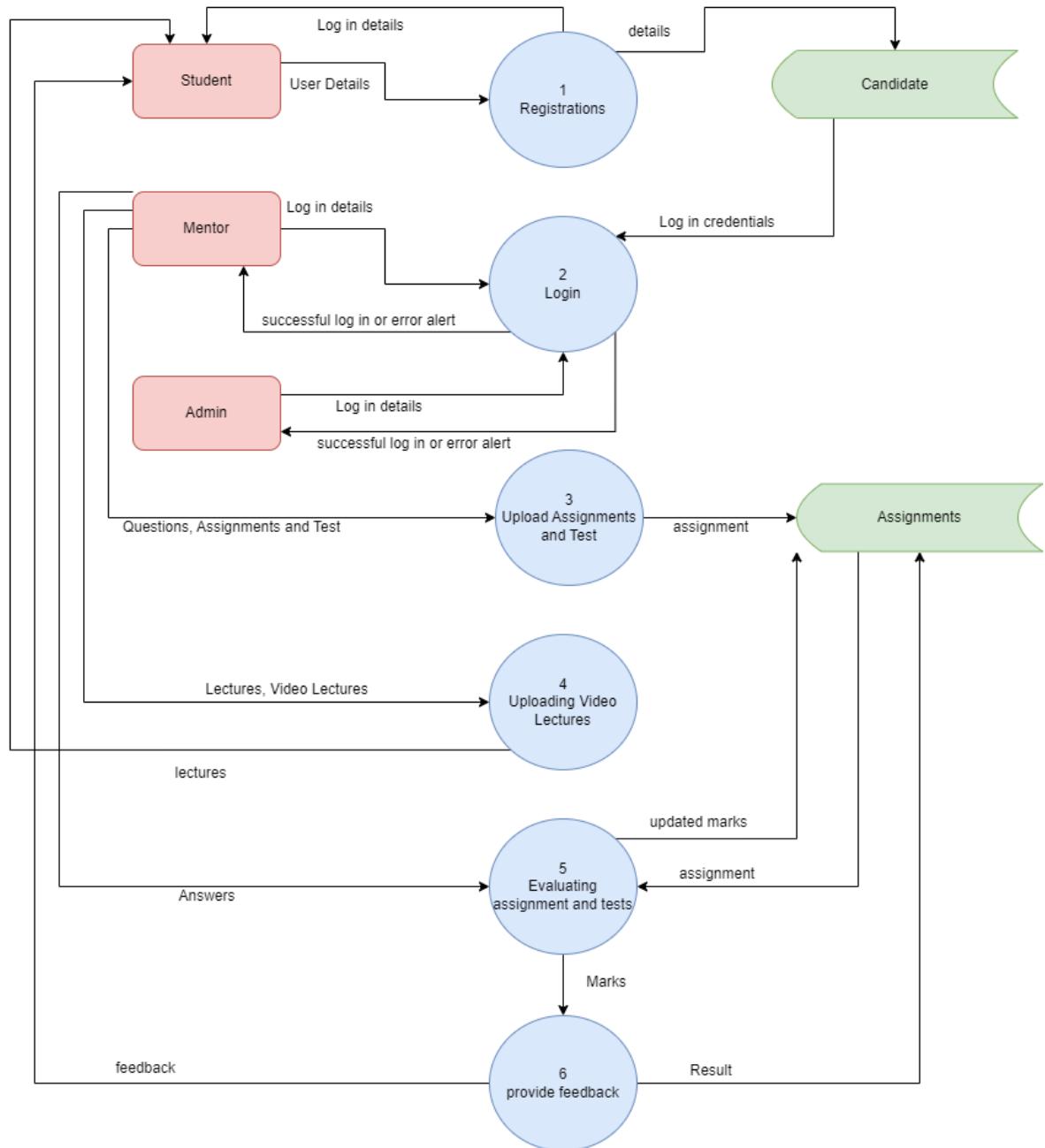


Fig. 3.2 Level 1 DFD of SIGMA

Fig. 3.2 explains that the student, admin, mentor will login to the system and all the data will be stored in the database. Then mentor will upload the assignments and test to the system so that students can download the assignment / test and attempt the same. Video lectures will also be uploaded to the system for the user. The answers of

the assignments given by the student will be evaluated by the mentor and the feedback will be given to the student and database.

3.2 Sequence Diagram

Sequence Diagram is used to show the process of the system based on the different timeline.

3.2.1 Sequence Diagram of Registration Process

In this Diagram of Registration Process, it has 4 objects one actor, one boundary object, one control object, one store object.

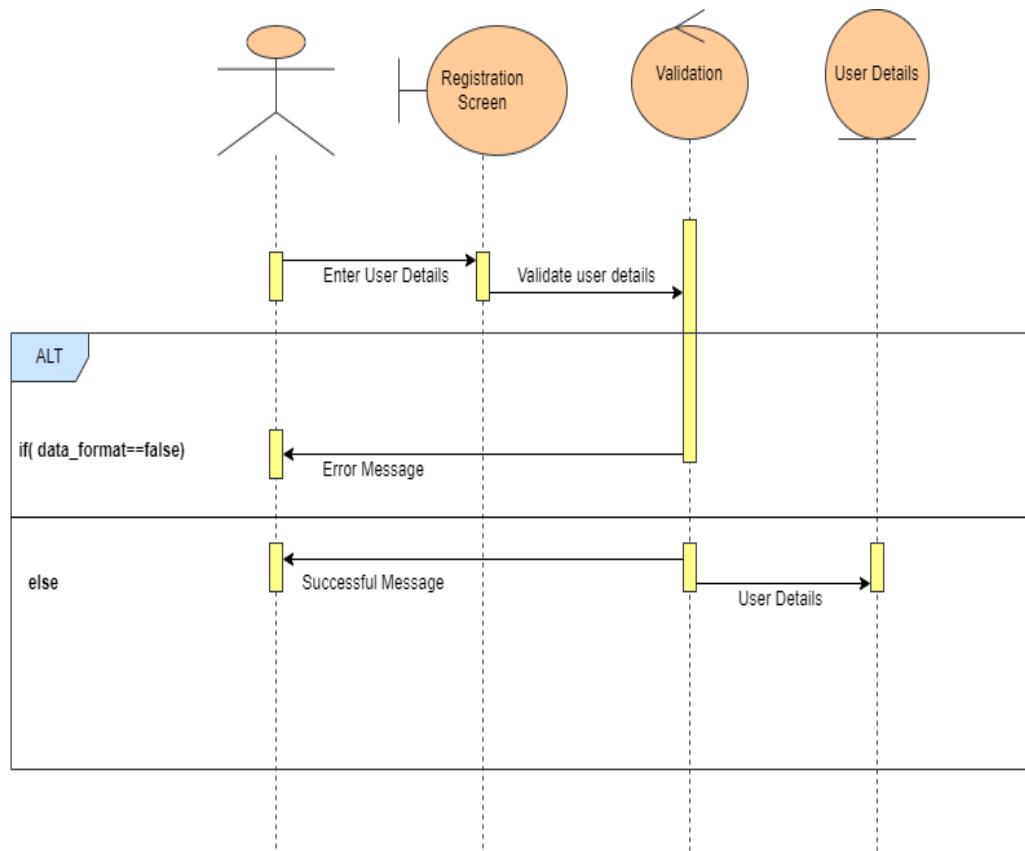


Fig. 3.3 Registration sequence diagram

Fig 3.3 explains about the process of registration where user send the details to the screen then validate those details. If details are not in correct format, then an error message is displayed. If details are in correct format, then successful message is displayed. Then details are stores in user database.

3.2.2 Sequence Diagram of Login Process

In this Diagram of Login Process, it has 4 objects one actor, one boundary object, one control object, one store object.

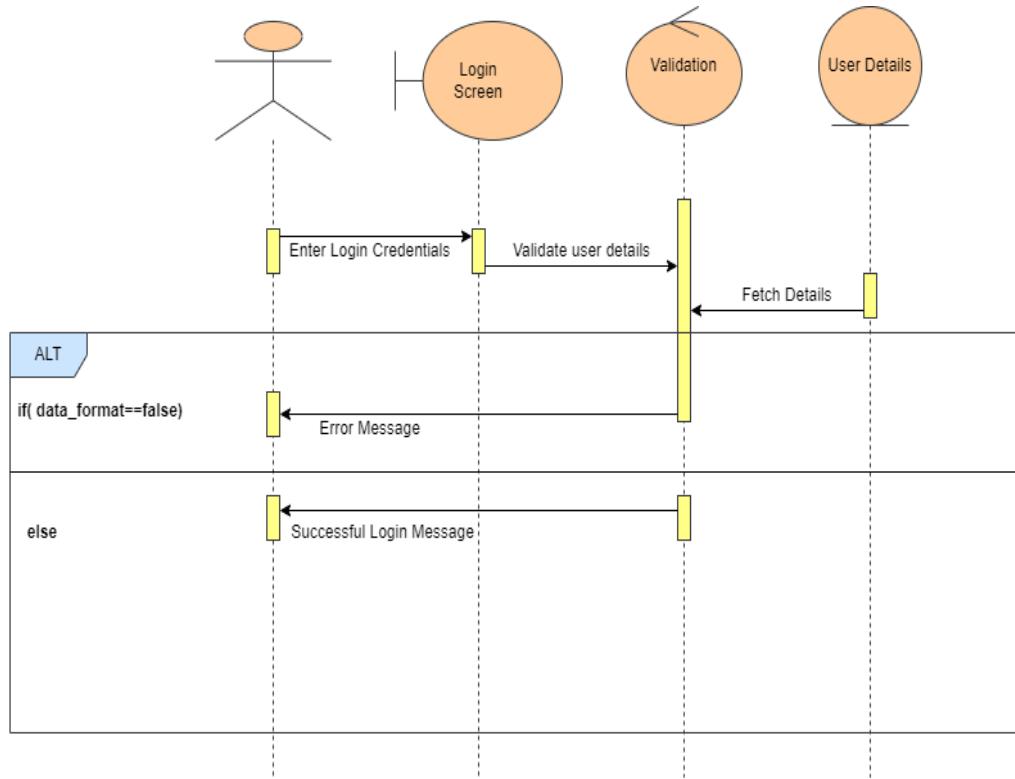


Fig. 3.4 Login sequence diagram

Fig 3.3 explains about the process of login where user send the details to the screen then validate those details. If details are not correct from fetched data from database, then an error message is displayed. If details are correct from fetched data from database, then successful message is displayed.

3.2.3 Sequence Diagram of Uploading Assignment Process

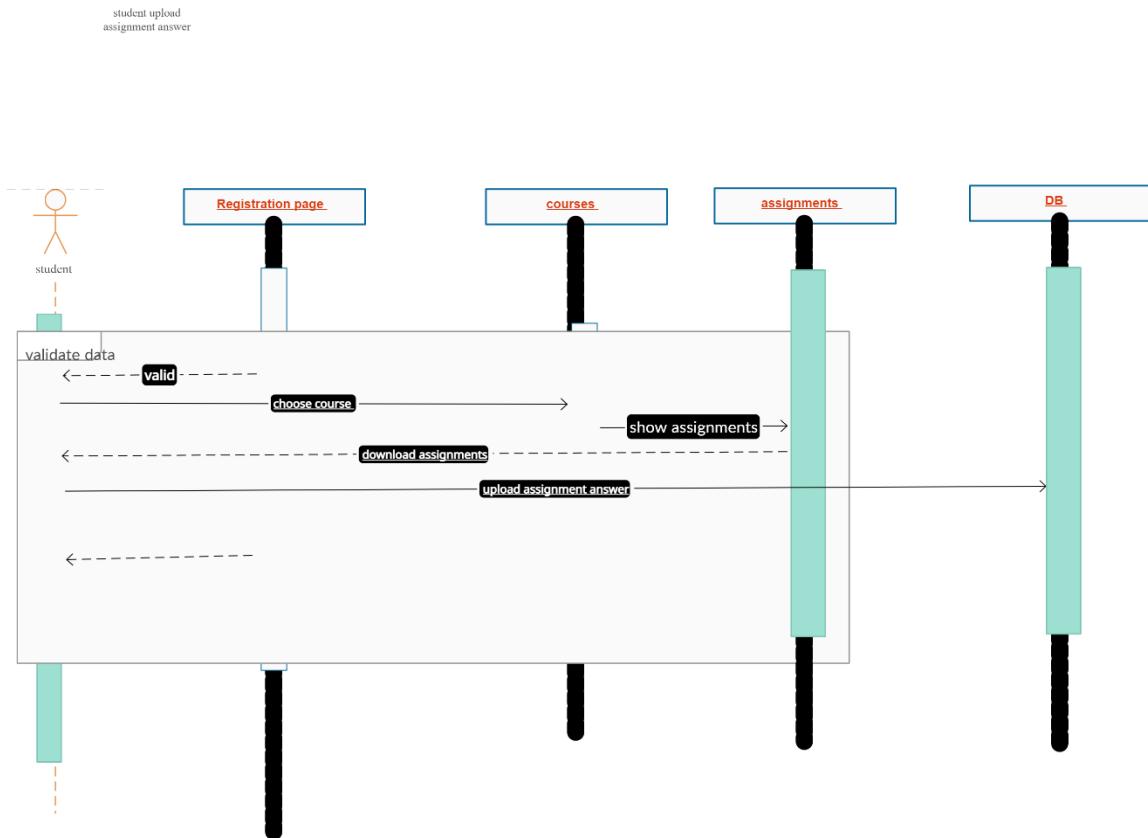


Fig. 3.5 Domain Customization Sequence Diagram

Fig 3.3 The process of uploading an assignment initiates when a student interacts with the online learning platform's user interface, expressing the intent to submit an assignment. The backend server receives this upload request and prompts the user to select the assignment file they wish to upload. Subsequently, the system verifies the file format and size to ensure compliance with predefined criteria, preventing the submission of incompatible or excessively large files. Once the verification is successful, the user confirms the upload, typically through a button click. The system then takes charge of initiating the file transfer process, moving the assignment file from the user's device to the server for storage and processing. Simultaneously, the backend server manages the storage of the uploaded file in a designated location, associating it with the correct user and course. The system updates the database to reflect the successful submission, recording essential details such as the user, assignment specifics, timestamp, and relevant metadata. Upon completion, the system notifies the user of the successful upload, displaying feedback on the user interface. With the confirmation received, the assignment upload process concludes, leaving the system

ready to handle subsequent submissions or other interactions seamlessly within the online learning platform.

3.3 Use Case Diagram

A use case diagram is a visual representation within the Unified Modeling Language (UML) that serves to depict the interactions between various actors, which can be users or external systems, and a specific system under consideration. This diagram provides a high-level overview of the functionalities or features offered by the system and how different users or external entities interact with it. Actors are portrayed as stick figures or blocks, representing external entities, while use cases, describing specific functionalities or tasks, are depicted as ovals within the system's boundary. The relationships between actors and use cases, including associations, include, and extend relationships, are illustrated with arrows. Use case diagrams are instrumental during the early stages of software development, aiding in the communication and understanding of system behavior among stakeholders such as developers, designers, and clients. They encapsulate the essential aspects of a system's functionality and user interactions, contributing to a clearer comprehension of system requirements.

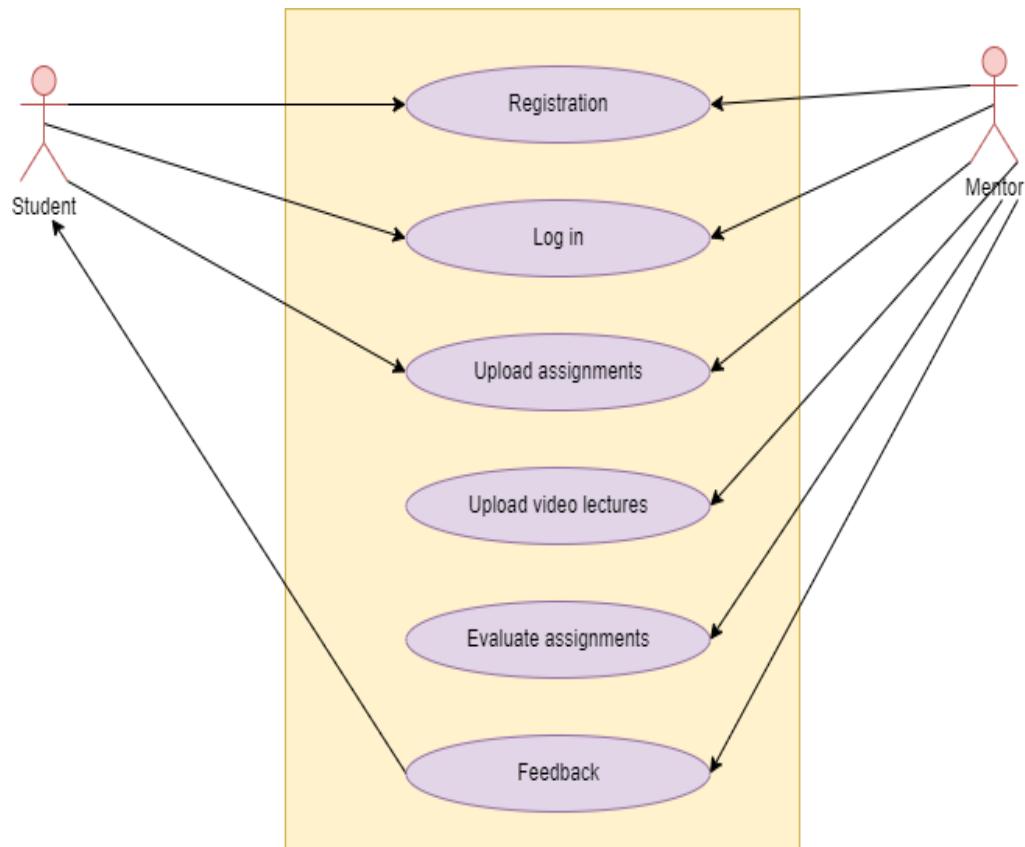


Fig. 3.7 Use Case Diagram of SIGMA

Actors:

Student: The primary user who interacts with the system to access educational materials, submit assignments, and engage in mentoring.

Mentor: Educators or mentors who guide and mentor students, providing feedback, and managing courses.

Administrator: Oversees and manages the overall functionality of the platform, ensuring quality, consistency, and system integrity.

Use Cases:**Access Learning Materials:**

- Actors: Student
- Description: Students can access educational materials, resources, and courses provided by mentors.

Submit Assignment:

- Actors: Student
- Description: Students can upload and submit assignments through the platform for evaluation.

Provide Feedback:

- Actors: Mentor
- Description: Mentors can provide feedback on assignments submitted by students.

Manage Courses:

- Actors: Mentor
- Description: Mentors can create, update, and manage courses within the platform.

Administrative Oversight:

- Actors: Administrator
- Description: Administrators have the authority to oversee the platform's smooth functioning, ensuring quality, consistency, and system integrity.

Relationships:

The student initiates the "Submit Assignment" use case, leading to the mentor providing feedback.

The mentor manages courses, influencing the learning materials accessible to students.

The administrator has an overarching role, ensuring administrative oversight and the proper functioning of the entire system.

This use case diagram provides a high-level overview of the interactions between actors and the system within the "Sigma Student Informant Guidance Mentoring Assessment" project.

CHAPTER 4

PROPOSED WORK

4.1 Dataset Description

Student Information Dataset:

This dataset could include information about each student, such as:

Student ID
Name
Contact details
Academic program
Enrolled courses
Progress and grades

Mentor Information Dataset:

This dataset could store information about mentors involved in the program, including:

Mentor ID
Name
Contact details
Areas of expertise
Courses they mentor

Course Details Dataset:

To manage courses within the platform, this dataset might include:

Course ID
Course name
Description
Schedule
Assigned mentor(s)

Enrolled students

Assignment Submissions Dataset:

To track student assignments and mentor feedback, this dataset could contain:

Submission ID
Student ID
Course ID
Assignment details
Submission timestamp
Mentor feedback

Administrative Logs Dataset:

This dataset could log administrative activities to ensure quality and consistency. It might include:

Log ID
Administrator ID
Date and time of the activity
Activity description (e.g., system updates, user management)

Technical Infrastructure Dataset:

For tracking the performance and usage of the technical infrastructure, this dataset could include:

Server logs
System resource usage metrics
User activity logs
Technical issues and resolutions

4.2 Technology Description

- **Selection of Operating System:** Our website is platform independent, so it does not depend on the operating system.
- **Selection of Software:** Visual Studio is used to create our software.
- **Languages Used:** Django, Python, Postgresql, HTML, CSS, Bootstrap

4.3 Approach Used

The selection of technologies for the SIGMA project is underpinned by a thoughtful consideration of factors that collectively contribute to the efficiency, scalability, and robustness of the application. At the heart of the project lies Django, a powerful Python web framework renowned for its emphasis on rapid development and adherence to the "Don't Repeat Yourself" (DRY) principle. The use of Django aligns with the project's goals by providing a clean and pragmatic design that expedites the development process. Its modular and scalable architecture positions SIGMA for growth, accommodating the evolving needs of the platform seamlessly. The security aspect is a paramount concern, and Django's built-in security features, such as protection against SQL injection, cross-site scripting, and clickjacking, bolster the overall resilience of the web application.

Complementing Django, the choice of Python as the primary programming language is a strategic one. Python's readability and clean syntax significantly enhance code readability, fostering a development environment where collaboration and maintenance are streamlined. The language's extensive libraries and frameworks contribute to the versatility of the project, supporting not only backend development through Django but also various scripting needs across the application. Python's ability to strike a balance between simplicity and power aligns with the project's vision, ensuring that development remains agile and adaptive.

In the realm of data management, PostgreSQL emerges as the relational database management system (RDBMS) of choice. Renowned for its robustness and adherence to SQL standards, PostgreSQL brings reliability and extensibility to SIGMA. The scalability features, including support for indexing, partitioning, and replication, position PostgreSQL as an ideal choice for handling complex relational data. Furthermore, the system's commitment to Atomicity, Consistency, Isolation, and Durability (ACID) compliance ensures the integrity of transactions—a crucial aspect for a platform that involves educational and mentorship activities.

As SIGMA revolves around delivering content and interactive features to users, the choice of HTML (Hypertext Markup Language) as the standard markup language is foundational. HTML provides the essential structure for web pages, allowing for the organization of content in a semantic and accessible manner. Its role extends beyond mere structuring, influencing search engine optimization (SEO) and overall accessibility. Being universally supported by web browsers, HTML ensures consistent

rendering of content across diverse devices and platforms, contributing to a seamless and inclusive user experience.

CSS (Cascading Style Sheets) forms the aesthetic and presentational layer of SIGMA, offering a range of design and layout possibilities. Its significance lies in providing a consistent branding and visual identity to the platform. Through CSS, SIGMA achieves responsive layouts that adapt gracefully to different screen sizes, ensuring an optimal viewing experience for users on various devices. The separation of style from content enhances maintainability, allowing for efficient updates to the visual aspects of the application without necessitating modifications to the underlying structure. Moreover, CSS plays a pivotal role in ensuring cross-browser compatibility, a crucial factor in achieving a consistent and reliable user interface.

To expedite frontend development and maintain a professional and consistent appearance, Bootstrap, a popular frontend framework, has been integrated into SIGMA. Bootstrap's responsive grid system and predefined components empower the development team to create mobile-friendly and responsive web applications. Its emphasis on responsive design aligns with the project's commitment to delivering an accessible and user-centric experience. The framework introduces a level of consistency to SIGMA through predefined styles and components, streamlining the development process and contributing to a cohesive and polished user interface. Bootstrap's customization options, facilitated through themes and predefined classes, provide the flexibility necessary to align the platform's visual aesthetics with its unique requirements.

In the realm of backend development, the synergy between Django and Python is evident. Django, as a high-level web framework, enables rapid development by providing a clean, pragmatic, and DRY approach. The Python programming language, with its readability and extensive libraries, complements Django's capabilities, allowing for the efficient implementation of backend functionalities. Python's versatility is a key asset, facilitating not only backend development but also serving various scripting needs across the application.

The choice of PostgreSQL as the RDBMS further solidifies the backend infrastructure. PostgreSQL's reputation for robustness and adherence to SQL standards aligns with the project's data management requirements. The system's scalability features make it an ideal choice for handling the complex relational data inherent in an educational and mentorship platform. ACID compliance ensures the integrity of transactions, contributing to a reliable and secure backend environment.

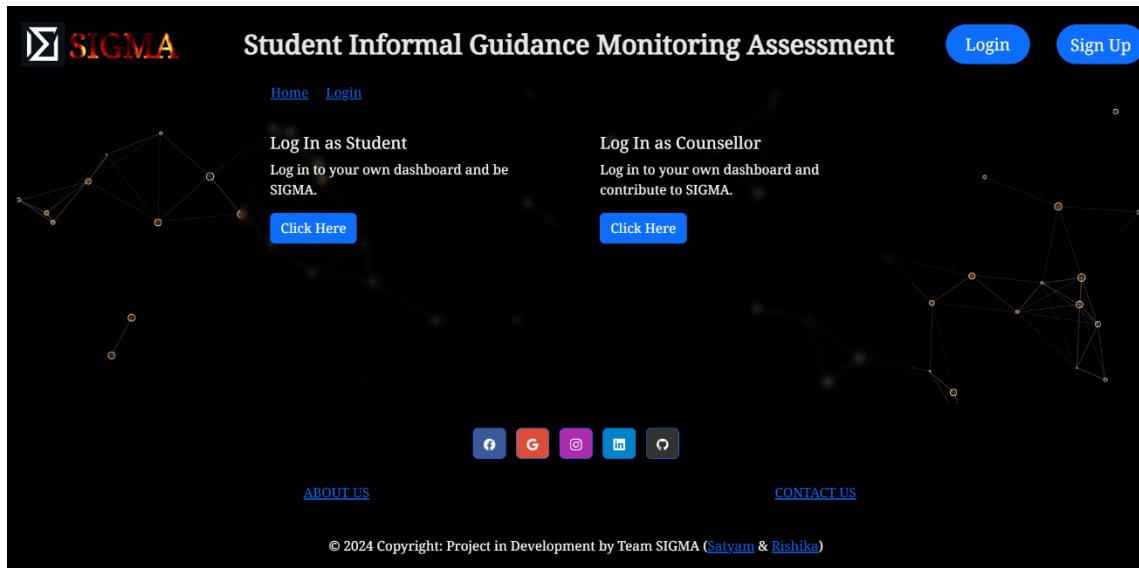
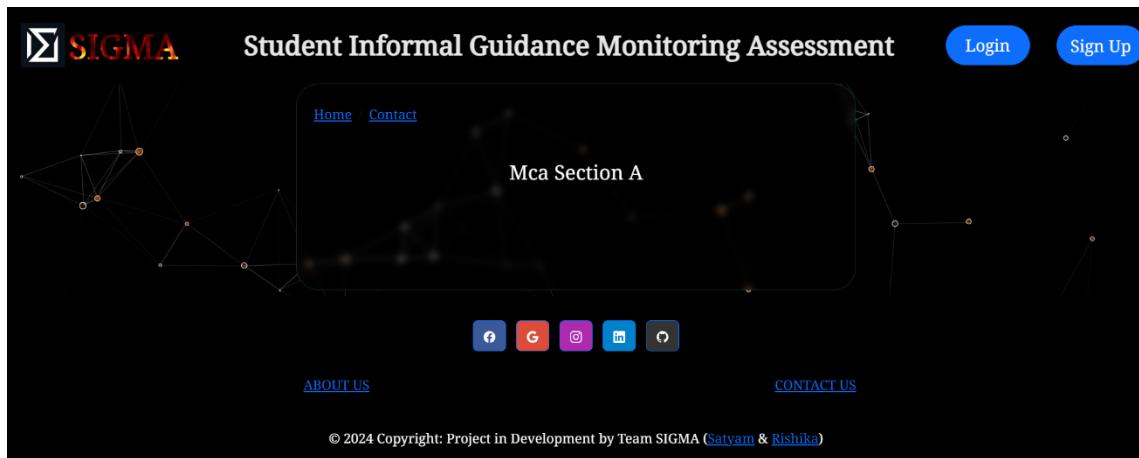
Turning to the frontend, HTML forms the backbone, providing the essential structure for web pages. Its semantic markup not only organizes content effectively but also influences the platform's accessibility and SEO performance. CSS steps in to handle styling and layout, ensuring a consistent visual identity and responsive design. Bootstrap, as the frontend framework, brings responsiveness, consistency, and customization options to the user interface. Together, these technologies facilitate the creation of an engaging and accessible frontend for SIGMA.

In summary, the amalgamation of Django, Python, PostgreSQL, HTML, CSS, and Bootstrap for the SIGMA project represents a strategic and cohesive technological stack. Each component has been carefully selected based on its merits, contributing to the overall efficiency, scalability, and user-centric design of the platform. Whether in backend development, database management, or frontend design, these technologies collectively empower SIGMA to deliver a seamless, secure, and engaging experience for both learners and mentors in the realm of online education and mentorship.

CHAPTER 5

Results

The SIGMA (Sigma Student Informal Guidance Mentoring Assessment) initiative marks a groundbreaking venture poised to revolutionize the landscape of online education and mentorship. Rooted in a holistic structure that encompasses student, mentor, and administrator interfaces, SIGMA transcends traditional unidirectional learning models. It introduces a paradigm shift in the mentor-student relationship, fostering a bilateral dynamic wherein both mentors and students actively contribute to and engage in a collaborative learning environment. At its core, SIGMA is driven by a commitment to user-centric design, prioritizing an intuitive and enriching experience for both students and mentors. The student interface is meticulously crafted to provide interactive dashboards, personalized learning paths, and tools facilitating active participation. Simultaneously, the mentor interface is equipped with robust course management tools, enhancing their ability to engage effectively with students. The three-tiered structure, comprising student, mentor, and administrator interfaces, creates a cohesive system that ensures seamless functioning and quality oversight. Administrative oversight serves as the backbone of SIGMA, ensuring content quality, consistency, and the overall efficiency of the platform. This oversight is not merely a regulatory function but an integral component that contributes to creating an environment conducive to optimal learning experiences. Technologically, SIGMA adopts a sophisticated approach by integrating powerful frontend and backend elements. The frontend, responsible for the user interface, incorporates interactive dashboards, personalized learning paths, and adaptive learning modules, enhancing the overall user experience. Meanwhile, the backend ensures data integrity, security, and scalability, reflecting SIGMA's commitment to providing a state-of-the-art and secure virtual learning environment. Beyond its technological prowess, SIGMA possesses transformative potential, seeking to redefine online education by nurturing collaborative learning and leveraging advanced technologies. It envisions a future where the mentor-student relationship is not confined to the traditional one-way flow of information but rather evolves into a reciprocal and dynamic exchange of knowledge and insights. In this envisioned future, both mentors and students actively contribute to and shape the learning experience, fostering a sense of co-creation. The multifaceted approach of SIGMA positions it at the forefront of innovation in online education. By prioritizing collaboration, active participation, and reciprocal learning, SIGMA sets new standards in virtual education. It aspires to address current challenges while simultaneously anticipating and adapting to the evolving needs of learners and mentors in the digital age. In summary, SIGMA stands as a testament to the potential of technology to not only enhance but also transform the educational experience, offering a dynamic and transformative journey for all stakeholders involved in the realm of online education and mentorship.



SIGMA Student Informal Guidance Monitoring Assessment

[Home](#) / [Login](#) / [Student-Login](#)

Enter Username

Enter Password

Submit

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

[Login](#)[Sign Up](#)[Home](#) [View Courses](#)

Available Online Courses



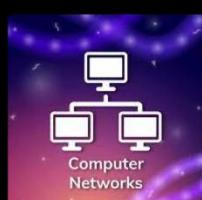
Artificial Intelligence

[View Course](#)

Web Technologies

[View Course](#)

Cloud Computing

[View Course](#)

Computer Networks

[View Course](#)

Software Engineering

[View Course](#)

[Login](#)[Sign Up](#)[Home](#) / [View Counsellors](#)

Experienced Counsellors



PrashantAgrawal
Contact through-prashant@gmail.com



AnkitVerma
Contact through-ankit@gmail.com



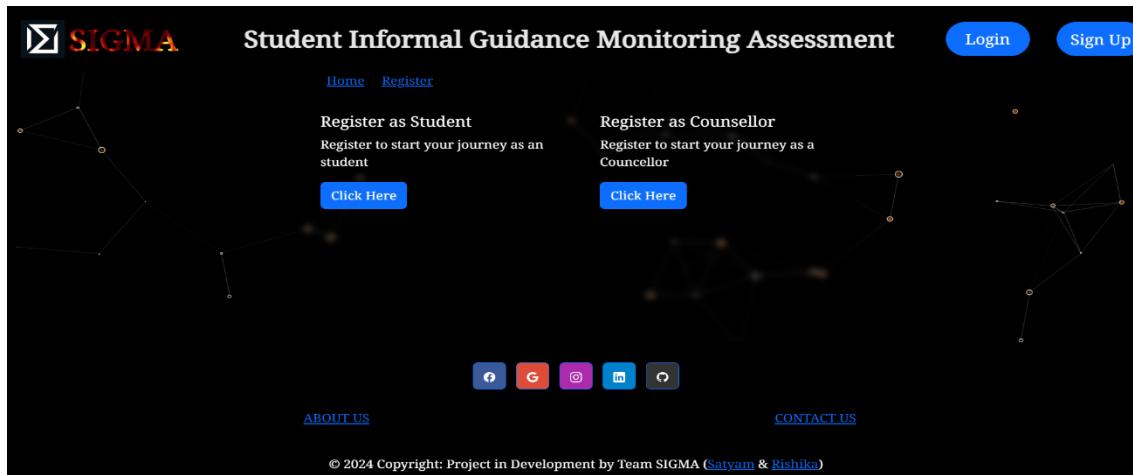
SangeetaArora
Contact through-sangeeta@gmail.com



ShashankBhardwaj
Contact through-shashank@gmail.com



PraveenPorwal
Contact through-praveen@gmail.com



This screenshot shows the "Student Registration" form. It includes fields for "Enter First Name", "Enter Last Name", "Username", "Enter Email address" (with a note: "We'll never share your email with anyone else."), "Enter Password", and "Confirm Password". A large blue "Register" button is at the bottom. The layout is identical to the homepage above it.

SIGMA Student Informal Guidance Monitoring Assessment

[Home](#) [Register](#) [Counsellor-Registration](#)

Enter First Name

Enter Last Name

Username

Enter Email address

We'll never share your email with anyone else.

Enter Phone No.

We'll never share your phone with anyone else.

Enter Password

Confirm Password

[Register](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA Student Informal Guidance Monitoring Assessment

[Home](#) / [Login](#) / [Student-Login](#)

Enter Username

Enter Password

[Submit](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))



Hi SATYAM Welcome to SIGMA

[Logout](#)

[Sign Up](#)

[Home](#) [SATYAM's Dashboard](#)

Enrolled Courses



Artificial Intelligence

[Complete Course](#)

More Courses



Artificial Intelligence

[View Course](#)



Web Technologies

[Complete Course](#)



Web Technologies

[View Course](#)



Cloud Computing

[Complete Course](#)



Cloud Computing

[View Course](#)



Computer Networks

[View Course](#)



Software Engineering

[View Course](#)

SIGMA

Hi SATYAM Welcome to SIGMA

Logout Sign Up

Home / SATYAM's Dashboard / Welcome back to Artificial Intelligence Course



Course Name : Artificial Intelligence
Instructor : Prashant Agrawal
Course Description : Learn AI with Prashant Agrawal
Course Duration : 6 months
Total Units : 5

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Download				

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA

Hi SATYAM Welcome to SIGMA

[Logout](#) [Sign Up](#)

[Home](#) [SATYAM's Dashboard](#) [View Computer Networks Course](#)



Course Name : Computer Networks
Instructor : Sangeeta Arora
Course Description : Learn Computer Networks with Sangeeta Arora
Course Duration : 6 months
Total Units : 5

[Click here to enroll in this course](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))



Hi SATYAM Welcome to SIGMA

Logout

Sign Up

Success You have successfully enrolled now

[Home](#) / [SATYAM's Dashboard](#)

Enrolled Courses



Artificial Intelligence

[Complete Course](#)

More Courses



Artificial Intelligence

[View Course](#)



Web Technologies

[Complete Course](#)



Web Technologies

[View Course](#)



Cloud Computing

[Complete Course](#)



Cloud Computing

[View Course](#)



Computer Networks

[Complete Course](#)



Computer Networks

[View Course](#)



Software Engineering

[Complete Course](#)



Software Engineering

[View Course](#)

SIGMA Student Informal Guidance Monitoring Assessment

[Home](#) / [Login](#) / [Counsellor Login](#)

Enter Username

Enter Password

[Submit](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA Hi Prashant Welcome to SIGMA

Success You are now logged in

[Home](#) [Prashant's Dashboard](#)

Courses Taught By You



Artificial Intelligence

[View your Course Units](#)

Add More Courses

[Click Here to Add New Course](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA Hi Prashant Welcome to SIGMA [Logout](#) [Sign Up](#)

[Home](#) [Prashant's Dashboard](#) [View Artificial Intelligence Course](#)



Course ID : 4
Course Name : Artificial Intelligence
Course Description : Learn AI with Prashant Agrawal
Course Duration : 6 months
Total Units : 5

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Download				

[Click here to make changes](#)

[Click Here to Know Students Enrolled in this course](#)

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA Hi Prashant Welcome to SIGMA [Logout](#) [Sign Up](#)

SATYAM SRIVASTAVA is linked to Artificial Intelligence
tarun kumar is linked to Artificial Intelligence
Deepakash Gautam is linked to Artificial Intelligence

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))

SIGMA Administration Area

WELCOME, PRASHANT [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Site administration

COURSES

Course units [+ Add](#) [Change](#)

Courses [+ Add](#) [Change](#)

Recent actions

My actions

None available

SIGMA

Hi Prashant Welcome to SIGMA

Logout Sign Up

Home Prashant's Dashboard

Enter Course Name

Enter Course Description

Enter Course Duration in Months

Upload Course Image
Choose File No file chosen

Upload Unit 1 Pdf
Choose File No file chosen

Upload Unit 2 Pdf
Choose File No file chosen

Upload Unit 3 Pdf
Choose File No file chosen

Upload Unit 4 Pdf
Choose File No file chosen

Upload Unit 5 Pdf
Choose File No file chosen

Register Course

[ABOUT US](#) [CONTACT US](#)

© 2024 Copyright: Project in Development by Team SIGMA ([Satyam](#) & [Rishika](#))



A screenshot of the main administration dashboard. It features a sidebar with navigation links for "AUTHENTICATION AND AUTHORIZATION", "COUNSELLORS", "COURSES", and "STUDENTS". The main content area shows a "Recent actions" log and a "My actions" log, both listing various administrative tasks such as linking users to courses and adding students to courses.

SIGMA Administration Area

Welcome, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Groups

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Coursesss [+ Add](#)

STUDENTS

- Enrolledcoursesss [+ Add](#)
- Studentss [+ Add](#)

Select group to change

Action: ----- Go 0 of 1 selected

GROUP
 Counsellors

1 group

[ADD GROUP +](#)

SIGMA Administration Area

Welcome, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Groups > Add group

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Coursesss [+ Add](#)

STUDENTS

- Enrolledcoursesss [+ Add](#)
- Studentss [+ Add](#)

Add group

Name:

Permissions:

Available permissions [?](#)

Filter

- admin | log entry | Can add log entry
- admin | log entry | Can change log entry
- admin | log entry | Can delete log entry
- admin | log entry | Can view log entry
- auth | group | Can add group
- auth | group | Can change group
- auth | group | Can delete group
- auth | group | Can view group
- auth | permission | Can add permission
- auth | permission | Can change permission
- auth | permission | Can delete permission
- auth | permission | Can view permission

Choose all [?](#)

Hold down "Control", or "Command" on a Mac, to select more than one.

Chosen permissions [?](#)

Filter

Remove all

[SAVE](#) [Save and add another](#) [Save and continue editing](#)

SIGMA Administration Area

WELCOME, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Groups > Counsellors

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

« COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Change group

Counsellors

Name:

Permissions:

Available permissions [Filter](#)

contenttypes | content type | Can delete content type
 counsellors | counsellors | Can add counsellors
 counsellors | counsellors | Can change counsellors
 counsellors | counsellors | Can delete counsellors
 counsellors | counsellors | Can view counsellors
 courses | course | Can view courses
 sessions | session | Can add session
 sessions | session | Can change session
 sessions | session | Can delete session
 sessions | session | Can view session
 students | enrolledcourses | Can add enrolledcourses
 students | enrolledcourses | Can change enrolledcourses
 students | enrolledcourses | Can delete enrolledcourses

Choose all [Remove all](#)

Hold down "Control", or "Command" on a Mac, to select more than one.

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Users

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

« COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Successfully deleted 1 user.

Select user to change

Action: [-----](#) Go 0 of 10 selected

	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input checked="" type="checkbox"/>	ankit	ankit@gmail.com	Ankit	Verma	✓
<input checked="" type="checkbox"/>	Deepakash@2224	Deepakashgautam@gmail.com	Deepakash	Gautam	✗
<input checked="" type="checkbox"/>	prashant	prashant@gmail.com	Prashant	Agrawal	✓
<input checked="" type="checkbox"/>	praveen	praveen@gmail.com	Praveen	Podwal	✓
<input checked="" type="checkbox"/>	ravi	ravi@gmail.com	ravi	kumar	✗
<input checked="" type="checkbox"/>	Sample	sample@gmail.com	Sample	Sample	✗
<input checked="" type="checkbox"/>	sangeeta	sangeeta@gmail.com	sangeeta	arora	✓
<input checked="" type="checkbox"/>	satyam	callmsatty@gmail.com	SATYAM	SRIVASTAVA	✓
<input checked="" type="checkbox"/>	shashank	shashank@gmail.com	shashank	bhardwaj	✓
<input checked="" type="checkbox"/>	tarun	tarun@gmail.com	tarun	kumar	✗

10 users

FILTER

- By staff status
 - All
 - Yes
 - No
- By superuser status
 - All
 - Yes
 - No
- By active
 - All
 - Yes
 - No
- By groups
 - All
 - Counsellors

SIGMA Administration Area

WELCOME, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Authentication and Authorization > Users > ankit

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellors [+ Add](#)

COURSES

- Course units [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Students [+ Add](#)

Change user

ankit

Username: ankit

Required: 150 characters or fewer. Letters, digits and @/_/+/- only.

Password: pbkdf2_sha256 iterations: 600000 salt: WAsBCF***** hash: JMoiOM*****

Raw passwords are not stored, so there is no way to see this user's password, but you can change the password using this form.

Personal info

First name: Ankit
Last name: Verma
Email address: ankit@gmail.com

Permissions

Active
Designates whether this user should be treated as active. Unselect this instead of deleting accounts.

Staff status
Designates whether the user can log into this admin site.

Superuser status
Designates that this user has all permissions without explicitly assigning them.

Groups:

Available groups	Chosen groups
<input type="checkbox"/> Filter	<input type="checkbox"/> Filter
<input type="checkbox"/> Counsellors	<input type="checkbox"/> Counsellors

User permissions:

Available user permissions	Chosen user permissions
<input type="checkbox"/> Filter	<input type="checkbox"/> Filter
admin log entry Can add log entry admin log entry Can change log entry admin log entry Can delete log entry admin log entry Can view log entry auth group Can add group auth group Can change group auth group Can delete group auth group Can view group auth permission Can add permission auth permission Can change permission auth permission Can delete permission auth permission Can view permission	<input type="checkbox"/> Remove all

Important dates

Last login: Date: 2024-01-17 Today
Time: 04:10:01 Now

Note: You are 5.5 hours ahead of server time.

Date joined: Date: 2023-10-28 Today
Time: 18:54:26 Now

Note: You are 5.5 hours ahead of server time.

Actions:

- [SAVE](#)
- [Save and add another](#)
- [Save and continue editing](#)
- [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Authentication and Authorization

Authentication and Authorization administration

AUTHENTICATION AND AUTHORIZATION

Groups	+ Add	Change
Users	+ Add	Change

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Counsellors

Counsellors administration

COUNSELLORS

Counsellorss	+ Add	Change
--------------	-------	--------

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Courses > Course units

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups	+ Add
Users	+ Add

COUNSELLORS

Counsellorss	+ Add
--------------	-------

COURSES

Course unitss	+ Add
Courses	+ Add

STUDENTS

Enrolledcourses	+ Add
Students	+ Add

Select course units to change

Action: ----- Go 0 of 5 selected

COURSE UNITS
 Software Engineering
 Cloud Computing
 Computer Networks
 Web Technologies
 Artificial Intelligence

5 course units

ADD COURSE UNITS +

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Courses > Course units > Software Engineering

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Students [+ Add](#)

Change course units

Software Engineering

Course id: Software Engineering [Edit](#) [Add](#) [Delete](#)

Unit1: Currently: pdf/MCA_Second_Year_Detailed_Syllabus_2021_22_final_copy_YIWkKoI.pdf
Change: No file chosen

Unit2: Currently: pdf/MCA_Second_Year_Detailed_Syllabus_2021_22_final_copy_bD3vX.pdf
Change: No file chosen

Unit3: Currently: pdf/MCA_Second_Year_Detailed_Syllabus_2021_22_final_copy_XtGJWI.pdf
Change: No file chosen

Unit4: Currently: pdf/MCA_Second_Year_Detailed_Syllabus_2021_22_final_copy_ZduPxWn.pdf
Change: No file chosen

Unit5: Currently: pdf/MCA_Second_Year_Detailed_Syllabus_2021_22_final_copy_ZU6fRCY.pdf
Change: No file chosen

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Courses > Courses

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Students [+ Add](#)

Select courses to change

Action: ----- Go 0 of 5 selected [ADD COURSES +](#)

- COURSES
- Software Engineering
- Cloud Computing
- Computer Networks
- Web Technologies
- Artificial Intelligence

5 courses

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Courses > Courses > Software Engineering

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Change courses

Software Engineering

HISTORY

Counsellor id: Praveen Porwal [Edit](#) [Add](#) [Delete](#)

Name: Software Engineering

Description: Learn Software engineering with Praveen Pon

Duration: 6 months

Image: Currently: Coursesphotos/2023/11/13/download_1.jpeg
Change: [Choose File](#) No file chosen

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Students > Enrolledcourses

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Select enrolledcourses to change

ADD ENROLLED COURSES +

Action: ----- Go 0 of 7 selected

ENROLLED COURSES

SATYAM SRIVASTAVA is linked to Software Engineering

SATYAM SRIVASTAVA is linked to Computer Networks

Deepakash Gautam is linked to Artificial Intelligence

tarun kumar is linked to Artificial Intelligence

SATYAM SRIVASTAVA is linked to Cloud Computing

SATYAM SRIVASTAVA is linked to Web Technologies

SATYAM SRIVASTAVA is linked to Artificial Intelligence

7 enrolledcourses

SIGMA Administration Area

WELCOME, SATYAM [VIEW SITE](#) / [CHANGE PASSWORD](#) / [LOG OUT](#)

Home > Students > Enrolledcourses > SATYAM SRIVASTAVA is linked to Software Engineering

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Change enrolledcourses

SATYAM SRIVASTAVA is linked to Software Engineering

HISTORY

Student id: satyam [Edit](#) [Add](#)

Course id: Software Engineering [Edit](#) [Add](#)

Enrolled date: Date: 2024-01-18 Today [Edit](#)
Time: 23:47:00 Now [Edit](#)

Note: You are 5.5 hours ahead of server time.

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Students > Studentss

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

<<

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Select students to change

Action: ----- Go 0 of 4 selected

- STUDENTS
- Deepakash Gautam
- tarun kumar
- ravi kumar
- SATYAM SRIVASTAVA

4 studentss

[ADD STUDENTS +](#)

SIGMA Administration Area

WELCOME, SATYAM. VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Students > Studentss > Deepakash Gautam

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

COUNSELLORS

- Counsellorss [+ Add](#)

<<

COURSES

- Course unitss [+ Add](#)
- Courses [+ Add](#)

STUDENTS

- Enrolledcourses [+ Add](#)
- Studentss [+ Add](#)

Change students

Deepakash Gautam [HISTORY](#)

Students id: Deepakash@2224 [edit](#) [+ Add](#) [Delete](#)

FirstName: Deepakash

LastName: Gautam

Username: Deepakash@2224

PhoneNo: 987654321

Email: Deepakashgautam@gmail.com

Gender: MALE

Profile picture: No file chosen

[SAVE](#) [Save and add another](#) [Save and continue editing](#) [Delete](#)

SIGMA Administration Area

WELCOME, SATYAM. CHANGE PASSWORD / LOG OUT

Home > Password change

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

COUNSELLORS

Counsellorss [+ Add](#)

<<

COURSES

Course unitss [+ Add](#)

Courses [+ Add](#)

STUDENTS

Enrolledcourses [+ Add](#)

Studentss [+ Add](#)

Password change

Please enter your old password, for security's sake, and then enter your new password twice so we can verify you typed it in correctly.

Old password:

New password:

Your password can't be too similar to your other personal information.
Your password must contain at least 8 characters.
Your password can't be a commonly used password.
Your password can't be entirely numeric.

New password confirmation:

CHANGE MY PASSWORD

SIGMA Administration Area

Home

Logged out

Thanks for spending some quality time with the web site today.

[Log in again](#)

CHAPTER 8

REFERENCES

1. Predinger, Ishizuka, "The empathic companion: a character-based interface that addresses users' affective states", 2007.
2. Nunamaker Jr., C. Derrick, et al.: "Embodied Conversational Agent-Based Kiosk for Automated Interviewing", 2011.
3. Maras et al. "Ameliorating the disadvantage for autistic job seekers: An initial evaluation of adapted employment interview questions", 2021.
4. Robinson, Marica F., "Artificial Intelligence in Hiring: Understanding Attitudes and Perspectives of HR Practitioners", 2019.
5. Hosselet, P.F., "The acceptance of AI enabled decision support systems a project management perspective", 2018.
6. Tom Taulli, "Artifitial Intelligence Basics: A non Technical Basics", 2019.
7. Crutsinger, Herrera, "Mock Interviews: Leveraging AI Resources To Enhance Professional Skills", 2022.
8. B. Powell et al., "An overview of mock interviews as a training tool for interviewers of children", 2022.
9. Chou et al., "An AI Mock-interview Platform for Interview Performance Analysis", 2022.
10. Harchar, Ed.D., "Mock Interview Strategy: An action research study of administrator and teacher candidates' preparation for interview field experience", 2020.
11. Temgire et al., "Real Time Mock Interview using Deep Learning", 2021.
12. Lee, Kim, "Development Of An Ai-Based Interview System For Remote Hiring", 2021
13. Anderson, J., & Shackleton, P. "Interview Performance and Job Offer Success: An Empirical Study.", 2016.
14. Smith, K., & Johnson, A. "The Role of Interview Preparation in Job Seeker Success: A Quantitative Analysis.", 2018.
15. Brown, M., & Davis, S. "Customized Interview Practice: An Empirical Study on its Impact on Interview Outcomes.", 2019.
16. Patel R., et al. "Tailoring Interview Practice to Individual Needs: A Review of Customization Techniques.", 2020

17. Chen L., et al. "AI-Enhanced Mock Interviews: An Overview of Current Trends and Future Directions.", 2021.
18. Wu H., Kim S. "The Role of Artificial Intelligence in Interview Simulations: A Comprehensive Analysis.", 2017.
19. Williams E., Brown S. "Enhancing Interview Performance through FeedbackRich Mock Interviews: An Experimental Study.", 2020
20. Park, J., Lee, M. "Feedback Mechanisms in Interview Practice: A Comparative Analysis.", 2018.
21. Rogers, M., White, C. "Improving Communication Skills in Mock Interviews through AI-Driven Character Interactions.", 2018.
22. Yang, Q., et al. "The Role of AI in Enhancing Communication Skills: A Case Study of Interview Preparation.", 2019.
23. Lee, S., Park, K. "AI Assessment of Competencies in Mock Interviews." Computational Intelligence and Neuroscience, 2017.
24. Kim, H., et al. "Assessing Technical Competencies in Mock Interviews: A Comparative Study of AI and Human Evaluations." ,2018.