

## An Intelligent Ubiquitous Online Application for Mentoring System



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**ABSTRACT:** Mentoring is a way of transferring skills and knowledge from a knowledgeable person to a person who is in need of guidance. In today's world mentoring has become one of the prominent ways of learning. Usually traditional mentoring programs will involve one person guiding a group of students (mentees). Our system is designed to connect Mentor and Mentee where there will be one to one interaction. Rather than learning without proper guidance, mentee can learn from mentor as he will share information about his career path, provide guidance and also helps with exploring career and setting goals. The responsibility of a mentor is to showcase the possibilities to the students and to guide them on respective possible outcomes. Mentor Connector is a web based application which is developed to improve the performance of the students by assisting mentors to understand mentees problems. This application connects more people compared to traditional face-to-face mentoring system. If a person wants guidance from any mentor he can search through this web application and select the mentor of his choice present in any corner of the world. This system mainly enables the mentors to concentrate effectively on each and every student assigned to them. Scheduling future meetings is also easier.

**KEYWORDS:** Mentoring, Mentor, Mentee, Guidance, counsel, Performance, Track Progress, Feedback.

### I. INTRODUCTION

Mentoring has always existed, for example, in the Dronacharya of Mahabharata, who led Arjuna to the best warriors. A mentor is a person who guides, assists, and supports who is in need. A mentee is someone who benefits from guidance and support by learning from people who have followed similar paths before him/her. A faculty member, graduate, or industrialist acts as a student mentor. This can be one of the most important relationships for students, as it is important in the learning phase of every student's life. Interactions between them include skill development training, education, and leadership feedback, career counseling, bridging professional networks for mentees, and tracking mentee progress. While mentors provide support and career guidance, there is some evidence that mentors play an important role in providing psychosocial support to students and that mentors' primary function tends to be career development. Instead of spoon-feeding, the focus should be on how young students can effectively solve their problems. Mentors manage a record of all mentees assigned to them. All activities performed by the mentee are known to the mentor such as information about their progress and activities. The documentation containing this information also includes complete details about the mentee and its history. Mentors can play a variety of roles in their study and work life. Mentors become more important when you are studying in college and trying to develop a career path. The role of the mentor is needed here as he showcases the right path for a mentee. With the right guidance, a mentor can guide you to become a passionate person. Mentors can also provide a reliable support system. With the help of a mentor, you can connect with world-class industry and academic professionals. Expanding your network of professionals can help you in the future. Mentoring not only grows professionally but also promotes self-development as much as possible. Mentors first understand the goals and needs of a mentee and then guide accordingly. This web app help students prosper beyond their professional lives and provide guidance whenever they need it. Since this is a one-on-one interaction, the mentor asks the mentee a question and encourages them to clear the confusion. Cross-age peer mentoring is a type of mentoring program used by many schools and educators in the classroom. Older children have always guided younger children. Similarly, at Mentor Connector, people with a wealth of experience and knowledge will guide those who need it.

Benefits of Mentor Connector - Apart from benefiting only mentees, a mentor himself has a lot of advantages. Enhancing communication skills: Providing mentorship to mentees helps mentor effectively increase his conveying and listening skills.

## **An Intelligent Ubiquitous Online Application for Mentoring System**

Promoting connection and coordination: While mentoring mentee or newbie professionals, mentor continue to expand his social circle and meet new resources as time passes. Identifying one-self: Mentoring someone not only enables mentor to be prepared for answering any questions but also highlights mentors experience in life. Similarly even mentees benefit a lot from this Mentor Connector Have a clear-cut vision: Mentees will have clear cut vision of their career aspiration. Can follow ones dream with proper guidance Establishes a sound network: With the help of this Mentor Connector application Mentee can establish a very sound network. Empowers the young generation by having mentor it will empower the younger generation by giving proper guidance to young mentees.

The major goal of this system is to create one-on-one interactions between mentors and mentees present in any corner of the world, as well as to provide appropriate resources for mentees when there is a need for guidance at the right time and to lead them to choose a proper career according to his passion and choice. Students can use this approach to improve their educational, social, and personal development learning from mentors' experiences, which aids in the selection of appropriate mentors career. Also, motivate him whenever he feels low until he reaches his goal. The objective is to make a career-oriented and successful person.

## **II. LITERATURE SURVEY**

Dr. Sunanda Dixit and Javeriya Farheen wrote a study on E-Mentoring System Application in which they described faculty guiding a student of a specific organization using an electronic application. The E-Mentoring system was built on a client-server approach. Worked as a point of contact for mentors and mentees it was an Android device. As well as a desktop application for undergraduate initiatives 18 to 20 pupils, referred to as mentees, were assigned to each faculty member. Mentors are people who help others. The mentor kept track of things in some way. They are assigned to each mentee. A mentee's activities include everything he or she does. The mentor is aware of these. Mentors gather data on their mentees. In a meeting, they will discuss their progress and curriculum activities. The document in question had kept track of this information, which contained the full specifics as well as their sources. History of the mentees. This was employed in the educational sector for mentorship purposes [1]. Kimberly Nicole Rowland, University College, University of Maryland Traditional customs were explained. Many organizations have formed and participated in a mentorship program. Traditional mentorship initiatives have been established. Both qualitative and quantitative Successful mentorship has been discovered in quantitative research investigations. Programs increase productivity and job happiness, and they may even lead to a promotion. Lead to the advancement of the mentee Mentoring used to be done in a certain way. Developed through a method in which one person supervised a group of people Students forms a bond with their mentors and mentees. By way of e-mail new type of mentorship is asynchronous computer-mediated communication.

A method for developing virtual mentor-mentee interactions teams. Traditional mentorship is compared and contrasted in this work. Regarding e-mentoring and suggested new applications for e-mentoring Setting up an organization [2]. Celayne Heaton Shrestha, Steve May, Palitha Edirisingha, Linda Burke, Tim Linsey, Celayne Heaton Shrestha, Steve May, Palitha Edirisingha, Celayne Heaton Shrestha, Celayne Heaton Shrest The International Journal of Teaching and Learning in Higher Education describes how senior students might improve their academic performance. This will provide face-to-face peer mentoring to junior students over many years, and was as a part of the learning assistance supplied to first-year university students in the United Kingdom. As a result of their achievement, a plan was devised at institutions in the United Kingdom where first-year students Second and third-year students tutor first-year undergraduates. This can also be done through a range of face-to-face and electronic media [3].

Mentor Kart is an app that allows you to book a mentor and create a plan. The mentor will also assign and track the task. This has aided the mentee in achieving his or her goal in a more efficient and effective manner [4]. IDreamCareer is a platform for undergraduates to design their ideal careers, as well as a career counselling service to help them find the proper path [5]. PushFar is an app that contains features such as appointment scheduling, task management, and a built-in video call management. This enables businesses to connect with mentors and create a scalable mentoring programme for them [6].

Importance of having Mentor - Mentors can serve as a source of knowledge, and mentors can provide specific insights and information that enable mentee success. For example, it provides instructions on how to perform specific tasks and develop useful skills. Career starters can benefit from such advice because they feel their role more quickly and comfortably. For example, a mentor can help a person starting a business learn their initial business plan and how to budget. Mentors help mentees take responsibility for their goals. By tracking progress, the mentor helps the mentee stay focused and on track towards completing them. It can also ensure that the mentee does not forget about the goals they have set. Knowing that someone else is watching can serve as motivation, as the mentee likely does not want to let the mentor down by failing to meet goals. If a mentee is having difficulty in getting the job done or achieving their goals, the mentee can ask mentor for help. This encouragement can motivate them to continue despite the challenges. Mentors can also identify and clarify the strengths of a mentee and instill confidence. With strong self-confidence, mentees are less likely to give up on their goals. When people have ideas, they can use mentors as a

## An Intelligent Ubiquitous Online Application for Mentoring System

resource to discuss and try them out. Mentors can use relevant knowledge and experience to provide impartial advice and opinions. These insights give the mentee a better understanding of the steps to take and whether to pursue or leave the idea. Similarly, mentors can listen to them and guide them through everyday problems such as Conflicts at work. Trust is a core element of mentoring. Mentors need to trust that mentees have the best interests in mind and provide accurate and honest guidance. The business world can also be highly competitive, so we need to be able to rely on each other to keep sensitive information private as needed. Keeping in touch and keeping promises on a regular basis shows two ways to build trust in these relationships. Reliable mentoring allows for honest feedback. By building trust, Mentee understands that constructive criticism is not aimed at making them feel guilty, but about building their professional growth. Mentors can identify weaknesses and make suggestions for improvement. Since this is a professional relationship, the mentor plays an objective role. Friends, on the other hand, don't want to look critical, so they hesitate to name Mentee's weaknesses. The mentor will provide the guidelines. For those who are just starting their career, mentors can help set guidelines for work expectations. For example, you can clarify role priorities and appropriate actions in the workplace. These guidelines will help mentees develop proper work habits to focus and succeed in their work. These effective work habits help them become more productive and impress their bosses. Mentors Have Appropriate Experience If possible, individuals should choose mentors who have experience related to their profession and goals. When mentors communicate their success, mentees can use them as role models to aspire and imitate the steps they have taken. Mentors can also share the mistakes they make along the way. She will benefit from this because Mentee learns from the negative effects of her mistakes, but she doesn't have to suffer the consequences herself. Learning about these experiences can help prepare for the challenges faced by mentees and can also provide empirical advice on how to overcome those challenges.

We have implemented similar features and developed web-based application called mentor connector, instead of guiding 18 to 20 students' mentor will guides only one particular student at a time. In this system junior students is mentored by the senior students by means of mentoring them face to face interacting using web application program. If a person wants guidance from any mentor, he can search through this web application and select the mentor of his choice present in any corner of the world.

### III. DESIGN

#### A. USE CASE DIAGRAM

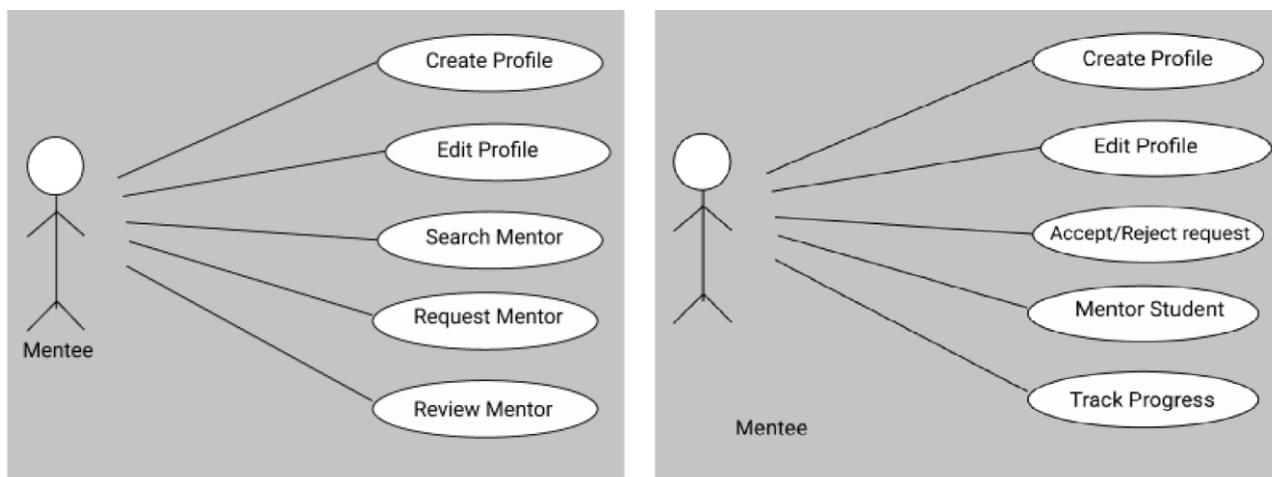


Figure 1: a. Use case diagram for mentee (b) Mentor

In order to get guidance from the mentor, mentee has to subscribe the Mentor Connector web application. They have to log-in by their respective usernames and passwords to have an access to the application. Mentee can search for Mentor present in any corner of the world and select him to guide throughout. Firstly he has to request mentor for mentoring him and then take guidance after mentor accept request. Based on mentoring mentee can review a mentor. The mentor starts mentoring the students after login in the application. Mentor accepts or rejects request and start guiding once he accepts any mentee request. All the information, activities & histories about the mentees, are always available on this application and visible to both the respective mentors and mentees. Mentor always keeps track of mentee progress.

#### B. SEQUENCE DIAGRAM

A sequence diagram will be made up of a group of diagrams. Lifelines and the items they represent, as well as the signals they convey during their various interactions, they exchange over time. Figure (3) and (4) are the sequence diagram for mentor and

## An Intelligent Ubiquitous Online Application for Mentoring System

mentee. Where in figure (3) tells about sequence diagram of mentee. Mentee after providing credential the database will check if the given credential is valid if the credentials are valid then the mentee can search for a mentor of his choice by sending him request. Mentor can accept or reject request, once mentor accepts request mentee can take guidance from him. Whereas in figure (4) it tells about the sequence diagram of mentor. Similarly as above, Mentor has to provide credential, once the database validate the user he can view student request, accept it or reject it, also give solutions or advice to mentee problems. Mentee Progress has to be marked and should always keep track of it. The progress of mentee will be stored in database and mentor can have access to it any time he needed to view it.

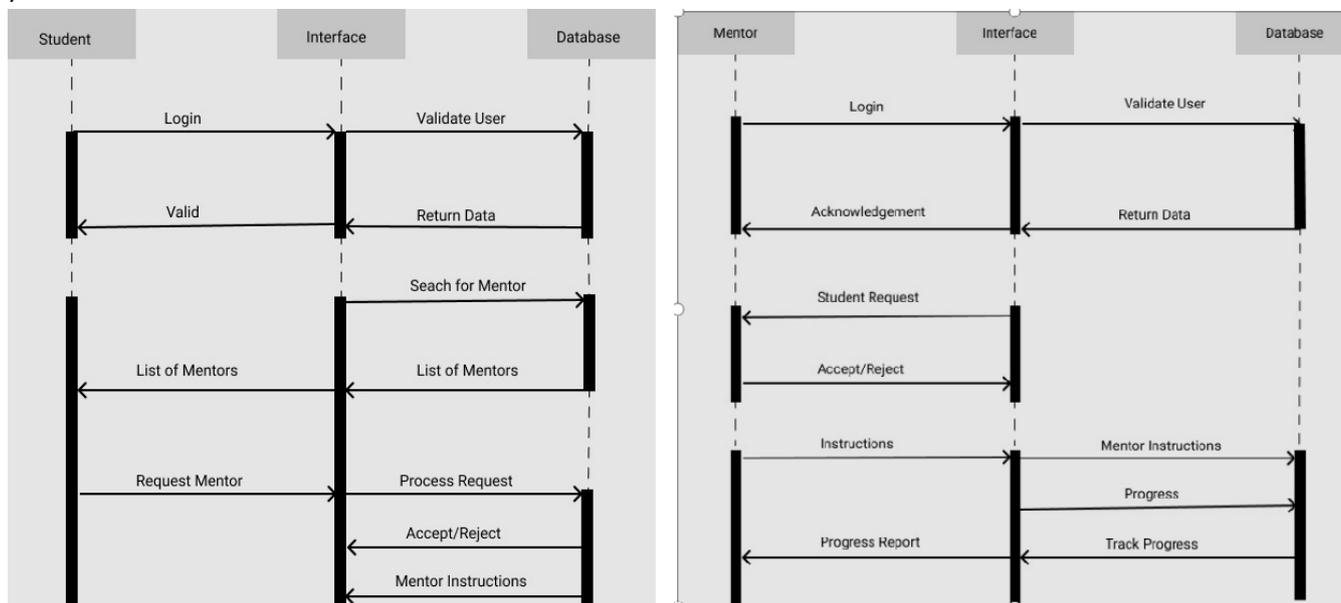


Figure 2: a. Sequence diagram for Metee b. Mentor

### C. E-R DIAGRAM

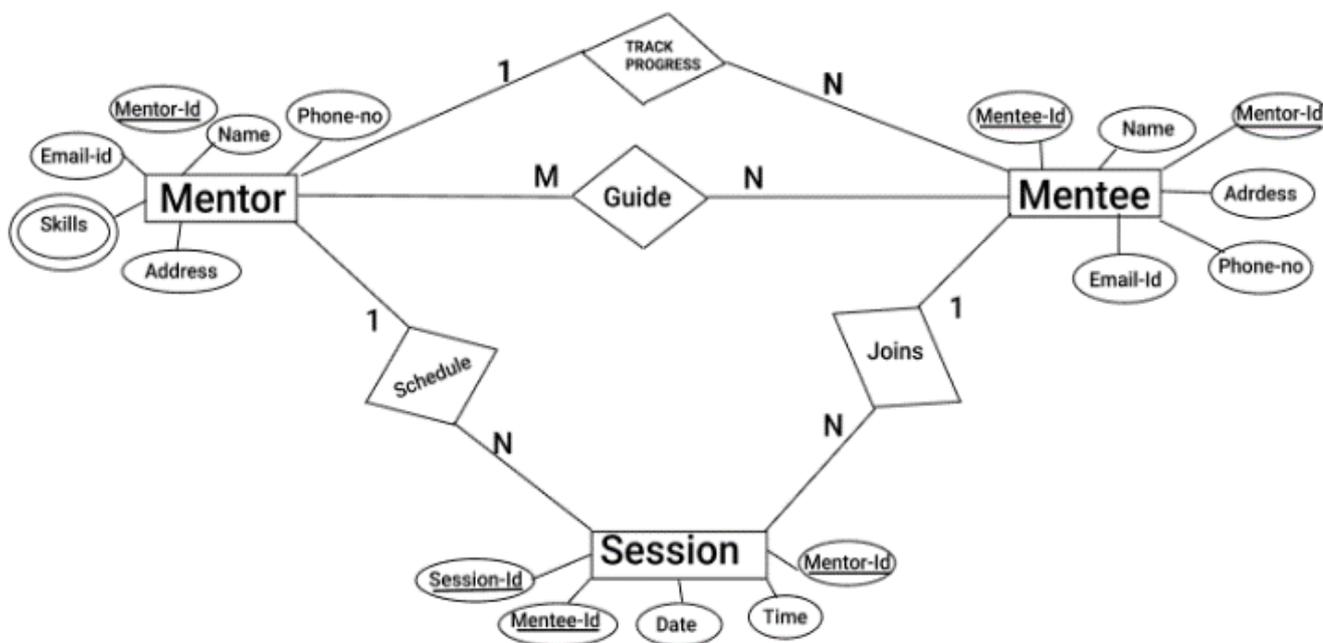
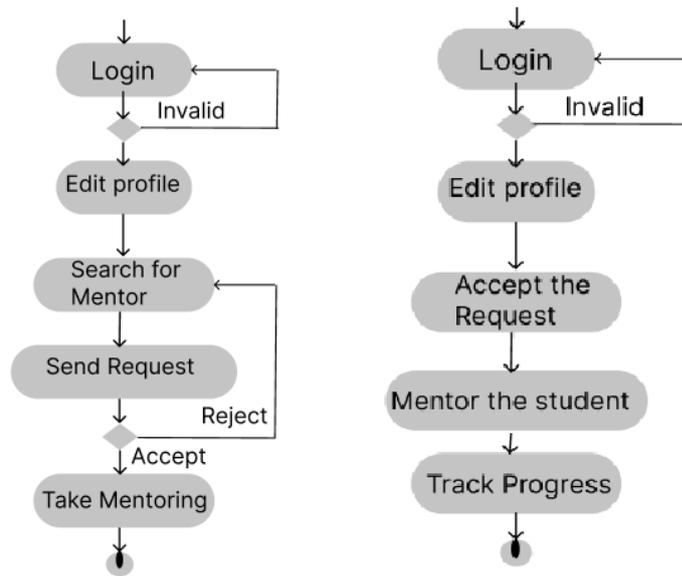


Figure (3): E-R Diagram

## IV. METHODOLOGY



**Figure 4: a. Activity Diagram for Mentee b. Mentor**

The system contains two users' mentor and mentee who has to login with their respective username and password to access this web application. Mentee to access this web application first he has to subscribe it and then login. Once the mentee logs in to this web application the list of mentors will be shown. In order to get guidance from any mentor he has to first send request along with description. Mentor can either accept or reject mentee's request. If the mentor accept request he can start guiding and he can keep track of mentee's progress as each and every activity of mentee that is discussed will be recorded and stored. After each interactions the mentor has to update whatever that is being discussed, this will be helpful for future interaction with mentee.

## V. CONCLUSIONS

Mentor Connector is a user-friendly and easy-to-use software because it is based on the client-server model. The mentor's responsibility is to show the potential to the students and lead to possible results. This system provides a state-of-the-art approach to facilitate learning and mentoring. However, for mentoring to work, you need to build a trusting relationship between the mentor and the mentee. Mentor Connector has proven to be a mutually beneficial learning situation where mentors provide advice, share knowledge and experience, and teach with a self-discovery approach. Mentoring or virtual mentoring over the Internet is becoming increasingly important in many organizations. If the project is carefully planned, mentoring is as effective as traditional mentoring. The prospect of virtual mentoring has a bright future for education. Mentees can improve their academic excellence under the guidance of knowledgeable mentors. Mentoring is about caring for learning and knowledge growth. The relationship between mentoring and learning is simple. Psychological and social factors such as feedback, guidance, advice, motivation, support, counseling, empathy, friendship, socialization, acceptance and verification all have an impact on the mentoring process that supports proper learning.

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## An Intelligent Ubiquitous Online Application for Mentoring System

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