
# Sagarmatha College of Science and Technology

**(Under the affiliation of Tribhuvan University)**

## Sanepa-16, Lalitpur

A Project Proposal On

## "Online Matchmaking System"

Submitted To

Department of Computer Science and Information Technology
Sagarmatha College of Science and Technology

Submitted By


| | |
|---|---|
| Sagar K.C. | 20864 |
| Siddhartha Khanal | 20870 |
| Sujan Giri | 20874 |


Semester: 7th

Batch 2075

Dec 25, 2022

# Table of Contents

# 1. INTRODUCTION

Online Matchmaking System is an online dating service presented through a mobile phone application (app), often taking advantage of a smartphone's GPS location capabilities, always on-hand presence, easy access to digital photo galleries and mobile wallets to enhance the traditional nature of online dating. The proposed system aim to simplify and speed up the process of sifting through potential dating partners, chatting, flirting, and potentially meeting or becoming romantically involved over traditional online dating services.

# 2. PROBLEM DEFINITION

There are a number of potential problems and challenges that may arise during the development and operation of a proposed system. Some of these include:

1. **Competition:** There are many similar applications available, so it can be difficult to stand out in the crowded market.
2. **User acquisition and retention:** Attracting and retaining a large user base is essential for the success of a matchmaking system. This can be challenging, as users have a lot of choices and may switch to a different app if they are not satisfied with the service.
3. **Security and privacy:** The proposed system handles sensitive personal information, so it is important to ensure that the application is secure and that user privacy is protected.
4. **Matching algorithm:** A key feature of many this system is the ability to match users based on their preferences and interests. Developing an effective matching algorithm can be challenging, as it requires taking into account a large number of variables and constantly adapting to changing user preferences.
5. **Regulation:** Proposed system may be subject to various laws and regulations, such as data protection laws, that must be taken into consideration during development and operation

# 3. OBJECTIVES

The objectives of an online matchmaking system may include:

1. To provide a platform for users to find potential partners.
2. To offer a user-friendly and intuitive interface that makes it easy for users to navigate the app and find matches.
3. To ensure the security and privacy of user data, including personal information and communication between users.
4. To continually improve and update the app based on user feedback and changing market trends.

# 4. RESEARCH METHODOLOGY

## 1. REQUIREMENT IDENTIFICATION

### 1. LITERATURE REVIEW

Online dating has become a mainstream way for people to meet and form romantic relationships. In the early days of the internet, online dating was largely limited to desktop websites that required users to fill out lengthy profiles and answer compatibility questions. With the proliferation of smartphones, the rise of mobile dating apps has revolutionized the way people connect with potential partners.

Studies have found that online dating can be effective in forming successful relationships. A study by Cacioppo et al. (2013) found that couples who met online were more likely to have satisfying relationships and be less likely to divorce than couples who met offline. Other research has identified factors that contribute to successful relationships formed through online dating, including the importance of mutual interests and shared values (Toma et al., 2018).

However, online dating has also been criticized for promoting superficiality and creating unrealistic expectations. Some people may rely too heavily on the convenience and efficiency of online dating, leading them to make snap judgments based on shallow criteria such as looks or income (Kutscher, 2018). This can result in a cycle of swiping and messaging without actually forming meaningful connections.

In terms of the business model, online dating companies generate revenue through a variety of means. Some dating apps charge users a subscription fee, while others make money through advertising or in-app purchases. The online dating industry has faced challenges such as fake profiles and data breaches, which can undermine user trust and lead to regulatory scrutiny (Smith, 2020).

Overall, online dating has the potential to facilitate meaningful connections, but it is important for users to be aware of its limitations and to approach it with realistic expectations.

## 2. REQUIREMENT ANALYSIS

Requirements analysis is an important step in the development of a software project. It involves identifying and documenting the specific needs and goals, as well as the constraints and limitations that may impact the development of the platform.

Functional requirements are specific actions or features that a system must be able to perform. Non-functional requirements are constraints or qualities that a system must possess, but which do not relate to specific functionality.
Functional requirements for an online matchmaking system may include:

- **User registration and authentication**: The system should allow users to create profiles, log in, and log out.

- **Matchmaking algorithm**: The system should use a combination of user data and psychological research to recommend compatible matches to users.

- **Messaging and communication**: The system should allow users to send and receive messages, as well as engage in other forms of communication such as video chat.

- **Personalization**: The system should allow users to customize their profiles and preferences, and make recommendations based on these preferences.

- **User profiles**: The system should allow users to view and edit their profiles, including their personal information, photos, and preferences.

Non-functional requirements for an online matchmaking system may include:

- **Security**: The system should be secure and protect user data from unauthorized access.

- **Performance**: The system should be fast and responsive, with minimal downtime or delays.

- **Usability**: The system should be easy to use and navigate, with a user-friendly interface.

- **Scalability**: The system should be able to handle an increasing number of users and transactions without performance degradation.

- **Compatibility**: The system should be compatible with a range of devices and operating systems.

## 2. FEASIBILITY STUDY

A feasibility study is an analysis of the potential success of a project. In the context of an Online-matchmaking-application, a feasibility study might examine the market demand for such a service, the resources and technology needed to develop and operate it, and the potential costs and benefits. The feasibility analysis for an online-matchmaking-application is as follows:

- **Technical Feasibility**: Based on our analysis, it is technically feasible to develop the proposed online matchmaking service. We will use a combination of automated matching algorithms and personal matchmaking services to connect users with compatible partners. We will also provide a secure platform for users to communicate and exchange information. We have identified the necessary hardware, software, and development resources to build the service, and we believe that we can deliver the desired features and capabilities
- **Financial Feasibility**: Our financial feasibility analysis indicates that the proposed online matchmaking service has the potential to be financially viable. The proposed system requires less manpower as we are using open-source resources during the development which leads to minimal maintenance after development.

- **Legal Feasibility:** We have conducted a legal feasibility analysis and have determined that our proposed online matchmaking service is in compliance with all relevant laws and regulations. We will also ensure that we have the necessary licenses and permits to operate the service.

- **Schedule Feasibility:** In the first month of the project, we will define the scope and objectives of the online matchmaking application, conduct market research to assess demand and competition, identify technical and resource requirements, and create a project budget and timeline. In the second month, we will develop a prototype of the application, conduct user testing to gather feedback and make necessary improvements, finalize the design and functionality of the application, and begin building and integrating necessary features. In the third month, we will complete development of the application, conduct final testing and debugging, launch the application, and prepare the necessary documentations

Conclusion:
Based on the analysis above, the proposed system appears to be feasible and worth pursuing. The app has the potential to differentiate itself from the competition. While there are a number of resources and technology requirements and potential regulatory and legal costs to consider, a detailed financial analysis suggests that the app has the potential to be profitable. Further research and analysis will be needed to confirm these findings and develop a detailed business plan for the Online-matchmaking system.

# Gantt chart

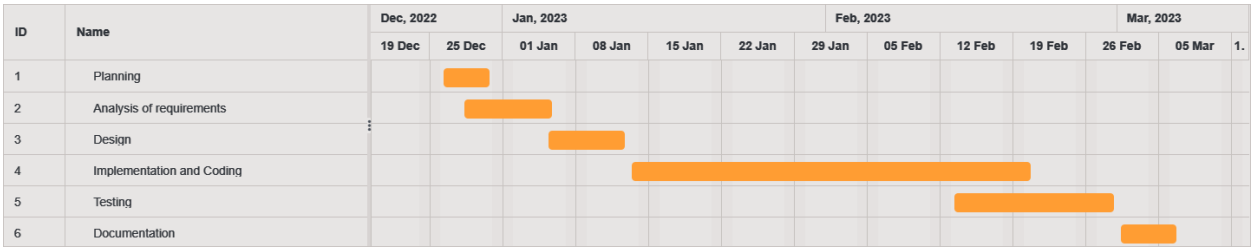


***Figure:*** *Gantt chart*

# 5. EXPECTED RESULT

By the end of the project, it is expected that our matchmaking solution will be successfully operated, with all the requirements met and most challenges overcome.
But more than that, by the end of this project, we expect our team to have learned the basic practices of a software development process and acquired various skills throughout this journey that will help us in the future.

# 6. CONCLUSION

In conclusion, our online matchmaking system is a unique and innovative solution that is designed to help people connect and form meaningful relationships. By combining the convenience and flexibility of online dating with the personal touch of matchmaking services, we believe that our system has the potential to revolutionize the way people connect.

# 7. REFERENCES

[1] Kyla Scanlon (Sep 1, 2020). Dating Data: An Overview of the Algorithm. Medium. *https://medium.com/swlh/dating-data-an-overview-of-the-algorithm-afb9f0c08e2c*

[2] Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating: A critical analysis from the perspective of psychological science. Psychological Science in the Public Interest, 13(1), 3-66.