

UNIVERSITY PARTNER



# **6CS007**

## **PROJECT AND PROFESSIONALISM**

### **Professionalism Report**

#### **SPORTS HUB BOOKING SYSTEM**

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# Table of Contents

1. The Social Impact .....	1
System's Potential .....	1
Positive Impact and Advantages .....	1
Risks and Potential Negative Outcomes.....	1
Conclusion and Significance.....	2
2. Ethical Issues.....	3
Ethical Commitment and Inclusive Policies .....	3
Measures to Protect Data and Resources .....	3
Financial Transactions and Socioeconomic Inclusion.....	3
Membership Discounts and Community Participation.....	4
Ethical Guidelines for a Fair Sports Environment .....	4
3. The Legal Implications .....	5
4. The Cyber Security .....	7
System Security Measures .....	7
User Consent and Data Access Controls .....	7
System Purpose and User Verification .....	7
User Education and Incident Response Plan .....	8
Communication with Stakeholders and Corrective Measures.....	8
Strengthening Defense within the System .....	8
5. References .....	9

## 1. The Social Impact

The sports hub booking system has the potential to be a game-changer with a centralized platform that offers more than just operational convenience for our community, opening up access to a wide variety of sports facilities and events.

### System's Potential

Sports hub booking system prioritizes inclusivity and community involvement while providing centralized access to a variety of sporting facilities along with activities. It emphasizes inclusivity, community involvement, fitness enhancement, and social well-being which goes beyond operational convenience. The studies conducted between (Penedo & Dahn, 2005) supports the idea that access to sports facilities is associated with better mental and physical health.

### Positive Impact and Advantages

The system encourages inclusivity and stronger bonds through the removal of challenges that go beyond simple physical interactions. When sports hub booking system facilities are frequently used, barriers to participation and inclusivity are reduced, encouraging engagement and inclusion among a diverse spectrum of people. In accordance with the system's purpose of encouraging better lifestyles and a more cohesive society, it assists users in developing tighter friendships and a stronger sense of belonging (seh, 2018). The system also encourages a more active lifestyle by making it simple for those with hectic schedules or limited mobility to reserve and use sports facilities. Sports hub booking system provides a space for social interaction, stress relief, and personal growth through sports engagement, all of which promote mental health. It also encourages eco-friendly behavior by reducing down on unnecessary travel to find appropriate sports facilities.

### Risks and Potential Negative Outcomes

Inappropriate use or mishandling may lead to service abuse, financial exclusion, or breaches that compromise user data. (Warren & Brandeis, 2021) And (Floridi, 2020) draw attention to moral dilemmas including prejudices and the requirement for inclusive laws to reduce hazards.

Dependence excessively on the sports hub booking system could lead to a decrease in face-to-face social contacts and even the isolation of heavy internet users. Digital divide problems could arise, excluding people without access to technology or low digital literacy, which could marginalize specific groups of people. An over-reliance on the system may result in inconvenience if reservations and athletic events are interfered with by technological problems or system malfunctions.

### Conclusion and Significance

The user-friendly interface of Sports hub booking system promotes regular physical exercise and significantly raises user's knowledge of their health and wellness. Reserving sporting facilities benefit from increased convenience and autonomy in selecting their own recreational activities. Users can select the sporting facilities with date where all the bookings for selected date appears. A potential way to change user behavior is start participating in more scheduled and planned sports which improves their time management. Another significance of the system is it prioritizes user accountability, data security, and equitable access which helps to ensures a positive outcome. It also establishes a more robust and health-conscious community demands moral leadership, inclusive components and dedication. People who get used to digital platforms may be inspired to employ technology for purposes other than placing sports bookings.

In summary, the sports hub booking system represents a commitment to a more diverse, well-connected, and inclusive community than just a piece of technology. Assuming moral leadership, inclusive design, and a dedication to creating a more resilient and health-conscious community, it represents a change towards social inclusion and wellbeing.

## 2. Ethical Issues

Before utilizing an online booking system for a variety of sporting events inside a sports organization, ethical considerations need to be thoroughly explored. With an emphasis on diversity, societal impact, data protection, and ethical decision-making, the program addresses a wide range of ethical challenges.

### Ethical Commitment and Inclusive Policies

The system deals with removing discriminatory practices from reservations, facility access, and activity participation which is the system main objective for inclusive policies and procedures. Discrimination will no longer be present in the system for internal processes in order to foster a friendly atmosphere for Nepal's diverse community. The project deals with moral issues pertaining to accessibility, data privacy, fair resource distribution, and societal effect. It upholds moral principles when managing user data, ensuring its accessibility, and promoting fairness in sports. The system reduces bias among users and provide fair access to sports facilities. Giving customers access to their data and reservations is very important so they can update or delete their personal information.

### Measures to Protect Data and Resources

The system is transparent, particularly when using algorithms to assign facilities. Strict data privacy regulations are put in place to protect user privacy and confidentiality. Building the system in compliance with international data protection standards and Nepal's privacy legislation (OneTrust Data Guidance, 2023), sports hub booking system obtains just the necessary booking data, and stores securely. The Implementing of security measures in sports hub booking system prevents fraud and unauthorized access and ensures all users behave morally. The system explores into strategies to provide equal access to the reservation system and close the digital divide.

### Financial Transactions and Socioeconomic Inclusion

Payment methods and price ranges symbolize Nepal's commitment to socioeconomic inclusion and global movements for equitable access to sports. Khalti's inclusion as a payment gateway raises ethical questions regarding pricing transparency, customer safety, and compliance with fair trade and consumer protection legislation (KC, 2019).

Ethical responsibilities include honoring user consent and preserving unambiguous clarity regarding financial transactions. The project prioritizes educating users on data management practices, payment methods, and financial data control in line with Nepal's values of transparency and user empowerment.

### Membership Discounts and Community Participation

The significance of providing balanced membership benefits while ensuring non-members are treated fairly, encouraging open communication and equal discount distribution in sports hub booking system (Bhattarai & Sharma, 2020). The project includes community involvement, stakeholder interaction, and seeking feedback from users, sporting organizations, and regulatory bodies.

### Ethical Guidelines for a Fair Sports Environment

Ensuring fair sports environment in sports hub booking system, evaluating the system's effects on various ethical issues on a regular basis and making changes in response to feedback and assessments are prioritized. The online sports booking system places a high value on ethical practices, such as user data protection, inclusiveness, fair financial transactions, and community participation. The project's commitment to digital integrity and social responsibility through these ethical standards is reflected. These policies serve as the foundation of our dedication to becoming a sports hub that promotes equity, inclusivity, and moral behavior. They are constantly being updated based on input from the community and ongoing evaluation.

### 3. The Legal Implications

According to the law, legal implications are the outcomes or consequences of being involved in something. Although creating a web application sports hub booking system is an exciting endeavor, there are numerous risks and obstacles involved. Legal obligations that may occur if the system fails to comprehend and abide by the legal considerations for development are among the biggest hazards.

Sports hub booking system stores the user's data in secured manner. Managing user's information in sports hub booking system while registration is very important. Adequate security measures are implemented to protect user data. Electronic transaction act covers electronic transactions, digital signatures, and electronic records (Government of nepal Electronic Transactions Act, 2006). Though Nepal doesn't have any law regarding the data protections like General Data Protection Regulation (GDPR), sports hub booking system ensures all guidelines regarding protection and privacy. GDPR is a protection law in European Union which aims to buildup and unify data protection for individual to control over their personal data (General Data Protection Regulation, 2018) . According to GDPR, there should be establishment of transparent and fair processing of data, the personal data should be collected for specified and legitimate purpose and should be kept securely and also should ensure permit identification of individuals to access the data. Sports hub booking system only collects the required necessary data for booking. If sports hub booking system was meant to be for live purpose GDPR can be violated but this is developed for study purpose.

There are many images used in sports hub booking system to make the user interface eye catching. Using someone images without their permission is violating copyright act. The copyright act protects the original work of the authors which also includes images. We need to ask for a permission to use the images. The sports hub booking system uses many images without the permission so this comes under violating copyright act. A legal framework which grants right to authors of original work is copyright act (Copyright Act, 2002). Not only the images, the sports hub booking system has different sports related links mentioned in the footer without the creators permission which also comes under

copyright act. The sports hub booking system is made for study purpose so if this was to be deployed then, this comes under violating copyright act.

Sports hub booking system is open and easily accessible to everyone regardless of their background and race and treats towards fair and equitable sports environment. (The constitution of Nepal, 2015) Guarantees equal right and opportunities for all citizens.

(Nepal Rastra Bank, 2075/76) Enforces e-payment under Payment and Settlement system act. The system is made for study purpose so test mode of khalti e-payment is used for secure payment in sports hub booking system. If sports hub booking system was to be deployed, Live API should be used where legal implications arises like handling live payment information involves data protection and security, transaction handling which falls under payment and settlement act overseen by NRB and contractual agreements set by khalti.

Sports hub booking system if meant to be deployed, clear terms and conditions should outline user right regarding payment policies, cancellation policies and any disclaimers. Sports hub booking system branding also should be trademark and need to be protected.

Sports hub booking system can mitigate risks, operate within legal boundaries, fostering trust among its user base by addressing these legal considerations.



## 4. The Cyber Security

Ensuring robust security measures within the sports hub booking system is critical to protecting user data, maintaining confidentiality, and ensuring user well-being.

### System Security Measures

It is crucial to safeguard user data and prevent unauthorized access. Password encryption is used to protect the database from unauthorized access, securing sensitive user data and login credentials. The security functions of Werkzeug, such as `generate_password_hash` and `check_password_hash`, encrypt and validate passwords within the system assures privacy and security. User passwords are transformed into irreversible hashes using safe hashing techniques like SHA256, which boosts security by making it hard to recover original passwords. User passwords are SHA256 hashed to prevent unauthorized access to retained credentials.

### User Consent and Data Access Controls

Only allowed individuals, such managers, are able to view or modify user data because of role-based access restrictions, which stop unauthorized access to personal information. Users maintain control over their data and have the ability to examine or update their personal information. The system obtains explicit consent before collecting or using user data. The sports hub booking system offers a robust defense against common security vulnerabilities due to help of Flask-Security. Controlling access and guard against common security issues, uses Flask extensions like Flask-Security.

### System Purpose and User Verification

User registration requires providing a valid email address for verification using a confirmation link sent via email to ensure that new registrations are authorized. Although the sports hub booking system was developed for academic purposes, it is not meant for live deployment. If it were to be implemented, frequent security audits, encryption protocols, multi-factor authentication, firewalls and intrusion detection system would be required.

## User Education and Incident Response Plan

Improving the system's overall security requires educating users on security best practices including creating strong passwords and spotting scams. The system's incident response plan calls for prompt containment of vulnerable areas, isolation of the compromised areas, and a comprehensive investigation to determine the extent of the breach and affected data in the event of a security breach.

## Communication with Stakeholders and Corrective Measures

Incorporating users, communities, and regulatory agencies as stakeholders in decision-making processes is very important. Addressing ethical dilemmas involves input and take into account approach with different in an efficient manner. Any security breach would be promptly reported to users and the appropriate authorities, along with any continuing efforts to resolve the issue. Reducing the damage and preventing recurrent attacks are the goals of corrective activities like forensic investigations, bolstering security, and restoring affected systems.

## Strengthening Defense within the System

A comprehensive analysis of the event seeks to strengthen system defenses and maintain resilience against potential attacks, with the security of user data being given top priority. Providing clear privacy policies and uncomplicated terms of service to foster user trust.

Maintaining a robust and safe sports hub booking system depends heavily on the system commitment to ongoing innovation, user awareness, and adaptation.

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