**Republic of the Philippines**

**Nueva Ecija University of Science and Technology**

**General Tinio (Papaya)**

**Biometric Attendance Monitoring With a  
Scheduling Management System  
(BAMSMS)**

**Submitted by:**

**Francis D. Caraang  
Chiara Alyssa T. Abesamis**

**In partial Fulfillment  
Of the Requirements for the Degree of  
Bachelor of Science in Information Technology  
With Specialization in Web Application Programming**

**CHAPTER I**

**INTRODUCTION**

The Sto. Niño Diocesan School (SNDS) is a public high school that is dedicated to providing quality education to its students. One of the school's main challenges is monitoring the attendance of its faculty members and managing their class schedules efficiently. Currently, the school is using a daily time record device to monitor attendance, but this method is not as accurate or efficient as it could be. To address this issue, the school intends to upgrade to a biometric attendance monitoring system.

To meet this challenge, we propose the development of a web-based Biometric Attendance Monitoring with a Scheduling Management System (BAMSMS) that will automate the attendance monitoring process and streamline the scheduling of faculty classes. The proposed system will leverage biometric technology to capture the attendance of faculty members in real time, eliminating the need for manual data entry and reducing the risk of errors. The system will also feature a scheduling module that will enable faculty members to manage their class schedules efficiently.

The BAMSMS will provide several benefits to SNDS, including improved accuracy in attendance monitoring, reduced administrative workload, enhanced transparency in class scheduling, and improved communication between faculty members and the school administration. The proposed system will also provide a platform for the school administration to generate reports on attendance and scheduling, enabling them to make data-driven decisions to improve the school's overall performance.

Overall, the proposed system aims to enhance the administrative processes of SNDS by automating attendance monitoring and class scheduling management. The system will provide a user-friendly and efficient platform for the school administration to manage attendance and class schedules, ensuring the smooth functioning of the school's academic programs.

The purpose of the " Biometric Attendance Monitoring with Scheduling Management System " is to provide Sto. Niño Diocesan School with a modern and efficient web-based system that can accurately monitor faculty attendance and manage class schedules. By using biometric technology, this system ensures that attendance records are more accurate than the daily time record device, while the scheduling management feature helps the school administration manage class schedules more effectively. Ultimately, this system aims to improve the school's overall efficiency and productivity, leading to better educational outcomes for students.

The Biometric Attendance Monitoring with Scheduling Management System is a web-based software designed to assist the administration of Sto. Niño Diocesan School in monitoring faculty attendance and managing class schedules. The system uses biometric technology, such as fingerprint scanning, to accurately record and monitor the attendance of faculty members. This feature ensures that attendance records are reliable, making it easier for the school administration to monitor and evaluate faculty attendance.

Moreover, the system also includes a class scheduling management feature that allows the school administration to efficiently manage class schedules. This feature enables the school to schedule classes, manage classroom availability, and assign teachers to specific classes, ensuring that the school's academic operations run smoothly and effectively.

The Biometric Attendance Monitoring with Scheduling Management System is designed to be user-friendly and intuitive, making it easy for faculty members and school administrators to use. With this system in place, the school administration can focus on more critical tasks, such as improving the quality of education and creating a positive learning environment for students. Overall, this system aims to help Sto. Niño Diocesan School become more efficient and productive in managing its academic operations, ultimately leading to better educational outcomes for students.

**REVIEW OF RELATED LITERATURE AND SYSTEMS**

**RELATED LITERATURE**

The Biometric Attendance Monitoring with Class Scheduling Management System is a software application that utilizes biometric technology for accurately monitoring the attendance of faculty members and managing class schedules. It is designed to automate the traditional attendance tracking system and reduce manual labor in managing class schedules.

Various human and automated tracking approaches and techniques have been developed to ensure that users’ and employees’ attendance is checked and recorded regularly (Ata Jahangir et al., 2021). It's great to know that research was conducted to address this issue; researchers attempted to benefit from various technologies available at the time, including biometric-related systems, which are technology systems that use data about a person to identify them(*What Is a Biometric System? - Definition from Techopedia*, n.d.).

According to Labuanan et al., (2019), the scheduling of classes has been one of the most important factors that a school needs to prepare for before enrolment plays a vital role. The Class Scheduling System is a piece of software that enhances these procedures and offers a database for keeping records and data. In case of changes, it enables the end-user to add, edit, delete, save, and update records or information(Abdullah & Younus Abdullah, n.d.).

**RELATED SYSTEMS**

The system is highly relevant to educational institutions, especially those with a large faculty and student population. The software can save time and resources, provide accurate data on attendance, and streamline the scheduling process. It is also beneficial for institutions that prioritize safety and security by ensuring that only authorized personnel can access the campus.

According to(*How a Biometric Attendance System Can Benefit Your Business*, n.d.) biometric attendance system is a time and attendance tracking system that uses physical traits like fingerprint or iris scans to identify and track employees' attendance. Tracking staff attendance, reducing time theft, and enhancing security are all possible with this kind of technology. A schedule is a plan that enumerates your tasks to assist you in setting priorities and achieving your objectives. A schedule describes an employee's workdays and hours in a professional setting. It contains details like the employees' names, working schedules, and tasks or responsibilities for that time frame (*Importance of Scheduling Tasks and Its Benefits | Profit.Co*, n.d.).

Automated fingerprint recognition is the process of digitally comparing one or more unknown fingerprints to a group of known and unknown fingerprints in the database. Mohamed & Raghu, (2012) described a specific finger assumption tool that is employed as a part of a unique finger impression attendance framework. By pressing their fingertips against the sensor of the device, the students can assess their essence. Nevertheless, this approach is unworkable because fingerprint scanners can't always successfully detect things the first time.

Several human and automated tracking strategies have been proposed to address the problem of monitoring attendance for employees and users. However, these approaches have encountered various issues and challenges. For example, some methods, such as manual recording or sign-in sheets, have been found to be unreliable and prone to errors (Sarangi et al., 2021). On the other hand, biometric-based systems have been criticized for their high implementation and maintenance costs, as well as concerns over privacy and security (Gawande et al., 2017). Additionally, the use of technology-based attendance tracking has also raised ethical concerns related to employee monitoring and data privacy (Facca et al., 2020). Despite these issues, researchers have continued to explore different approaches to ensure accurate and efficient attendance tracking for organizations.

Class scheduling is a crucial task for educational institutions, and both manual and automated methods have been developed to support this process. Automated systems, such as the Class Scheduling System (CSS), have been designed to improve the efficiency and accuracy of scheduling by providing a centralized database for storing and managing scheduling data (Labuanan et al., 2019). However, the adoption and use of such systems can also present various challenges and problems. One common issue is the need for continuous updates and modifications to the system to reflect changes in course offerings, faculty availability, and student demand (Abdullah & Younus Abdullah, n.d.). This requires ongoing maintenance and support, which can be time-consuming and resource-intensive. In addition, the use of technology can introduce new complexities and barriers, such as the need for specialized skills and training among users and the risk of technical failures or glitches(Kumar et al., 2019). Furthermore, the implementation of automated systems can also face resistance or skepticism from stakeholders who may prefer manual processes or have concerns about the reliability and security of the system ((Kim & Lee, 2020). Therefore, it is important for educational institutions to carefully consider these challenges and develop strategies to address them to ensure the successful implementation and use of automated scheduling systems.

Several software applications related to the proposed system have been developed. The following are software applications that have been developed for biometric attendance tracking:

1. **Suprema BioStar 2:** This is a web-based biometric attendance tracking software that offers a range of features, including real-time monitoring, customizable reports, and automatic email notifications. It supports multiple biometric authentication methods, including fingerprint, face, and iris recognition (*Web-Based Open Integrated Security Platform - BioStar 2 | Suprema*, n.d.).).
2. **Anviz CrossChex:** This software offers biometric attendance tracking using fingerprint, face, and palm recognition. It has features such as automatic shift scheduling, real-time monitoring, and reporting (*CrossChex Is Access Control and Time & Attendance Management Software Solution | Anviz Global--Powering a Smarter World*, n.d.).
3. **Matrix COSEC**: This software offers a range of biometric authentication methods, including fingerprint, face, and iris recognition. It also has features such as automatic attendance tracking, shift scheduling, and real-time monitoring(*Biometric Attendance and Access Control System - Matrix*, n.d.).
4. **RealSoft** **Attendance**: This software offers biometric attendance tracking using fingerprint and face recognition. It has features such as automatic shift scheduling, real-time monitoring, and reporting(*Softwares | Realtime Biometrics | India’s Leading Biometrics Company*, n.d.).

Some of the different software developed for class scheduling are as follows:

1. **CollegeNET**: This is a cloud-based scheduling software that allows educational institutions to create, manage and share class schedules. It provides real-time updates, conflict resolution, and automated scheduling tools to enhance the scheduling process (*CollegeNET - Serving Higher Ed Admissions, Scheduling & More!*, n.d.).
2. **Schedule360**: This software is designed specifically for healthcare institutions and offers advanced scheduling features such as shift-swapping, self-scheduling, and real-time communication (*Nurse Scheduling Software | Healthcare Scheduling Software*, n.d.).
3. **Coursedog**: This software is designed for higher education institutions and offers scheduling, curriculum management, and registration tools. It provides real-time updates, drag-and-drop scheduling, and automated conflict resolution (*Coursedog | Integrated Academic Operations Platform*, n.d.).
4. **SubItUp**: This software is a scheduling and employee management tool that offers features such as shift-swapping, automated scheduling, and real-time updates. It is suitable for educational institutions as well as other industries (*Workforce Management Solutions | SubItUp*, n.d.).

**SYNTHESIS**

In the realm of educational administration, the integration of cutting-edge technology is reshaping attendance monitoring and class scheduling practices. The Biometric Attendance Monitoring with Class Scheduling Management System emerges as a pivotal innovation, capitalizing on biometric technology to enhance accuracy and security. As revealed by Mohamed & Raghu (2012), the incorporation of automated fingerprint recognition underscores the commitment to reliability, even as initial detection challenges are acknowledged. However, the widespread adoption of biometric systems also raises concerns about privacy, as noted by Facca et al. (2020), necessitating a balance between technological advancement and ethical considerations.

Furthermore, the synthesis underscores the ever-evolving landscape of software solutions catering to attendance and scheduling needs. Applications such as Suprema BioStar 2, Anviz CrossChex, and CollegeNET exemplify the diverse array of tools available to institutions. The system proposed is poised to revolutionize processes for educational institutions, presenting automated solutions to age-old challenges and offering a path forward for greater efficiency and security.

**CONCEPTUAL FRAMEWORK**

**PROCESSS**

* Biometric attendance monitoring
* Class scheduling management
* Data validation and error handling

**INPUT**

* Faculty attendance data
* Class scheduling data
* Biometric technology data (fingerprint scans)

**OUTPUT**

* Accurate faculty attendance records
* Efficiently managed class schedules
* Reports on attendance and scheduling
* Improved communication between stakeholders

Fig. 1. Conceptual Framework: Biometric Attendance Monitoring with Scheduling Management System (BAMSMS)

As depicted in Figure 1, this conceptual framework illustrates the holistic process of developing the BAMSMS, an innovative solution addressing the challenges of attendance monitoring and class scheduling at Sto. Niño Diocesan School.

**Input Stage**

**Attendance and Scheduling Data:** Faculty attendance data and class scheduling details form the initial input for BAMSMS development.

**Biometric Technology Integration:** The incorporation of biometric technology, including fingerprint scans, enriches the system's ability to capture attendance accurately.

**Processing Stage:**

The system leverages biometric technology to track faculty attendance in real time, eliminating the limitations of manual methods.

**Efficient Scheduling Management:** BAMSMS includes a scheduling module that empowers faculty members to manage class schedules effectively, optimizing resources and reducing conflicts.

**Data Validation and Error Handling:** Stringent data validation protocols and error-handling mechanisms ensure the reliability and precision of captured information.

**Output Stage:**

**Precise Attendance Records:** BAMSMS generates and maintains accurate attendance records, enhancing transparency and accountability.

**Optimized Class Schedules:** The system streamlines class scheduling, promoting efficient allocation of resources and maximizing academic productivity.

**Data-Driven Reports:** BAMSMS facilitates the generation of insightful reports on attendance trends and scheduling patterns, aiding informed decision-making.

**Stakeholder Collaboration:** Enhanced communication channels foster improved collaboration between faculty, administration, and other stakeholders.

The framework underpins the Agile development approach, embracing iterative cycles of enhancement, flexibility, and user feedback.

In conclusion, the BAMSMS conceptual framework outlines the journey from data input to transformative output, reflecting Sto. Niño Diocesan School's commitment to streamlined administration and enhanced academic experiences.

**STATEMENT OF THE PROBLEM**

The Sto. Niño Diocesan School (SNDS) faces a significant challenge in accurately monitoring faculty attendance and efficiently managing class schedules for its academic programs. The current attendance monitoring method using a daily time record device lacks precision and efficiency. In order to address these issues, the school aims to implement a modern solution, specifically a web-based Biometric Attendance Monitoring with a Scheduling Management System (BAMSMS).

The proposed system aims to leverage biometric technology to capture real-time attendance data, enhancing accuracy and eliminating manual data entry errors. Additionally, the system will incorporate a scheduling management module that empowers faculty members to manage their class schedules effectively, ensuring optimal classroom utilization and faculty allocation.

The primary problem lies in the existing inefficiencies and inaccuracies associated with manual attendance tracking and class scheduling. These challenges hinder the school's ability to streamline administrative processes, allocate resources efficiently, and communicate effectively with faculty members. Therefore, the development of the BAMSMS seeks to overcome these limitations and provide a comprehensive solution that enhances the overall administrative functioning of SNDS.

**SCOPE AND LIMITATION**

**Scope**:

* The capstone project will focus on the development of a Biometric Attendance Monitoring with a School Scheduling Management System.
* The system will use biometric data to track school employees' attendance, eliminating the need for manual attendance records and reducing the risk of errors.
* The system will also include a class scheduling component to help ensure that faculty are available for their scheduled classes and to minimize scheduling conflicts.
* The system will be designed to be user-friendly.

**Limitations**:

* The project will not include the development of a hardware biometric device for capturing attendance data. Instead, the project will utilize existing hardware devices available in the market.
* The project will not cover the integration of the system with other existing school systems, such as the student information system or payroll system.
* The project will not address issues related to data privacy and security. However, the system will be designed to comply with standard data protection regulations.

**Significance of the Study**

The proposed "Biometric Attendance Monitoring with Scheduling Management System" holds substantial significance for the Sto. Niño Diocesan School and its stakeholders. This study aims to provide a comprehensive and modern solution that leverages biometric technology to streamline attendance monitoring and scheduling management, thereby alleviating the challenges faced by the school administration.

**Improved Accuracy and Efficiency:** The introduction of biometric technology ensures accurate attendance tracking in real-time, eliminating the inaccuracies associated with manual data entry. This improvement in accuracy also translates to efficient management of faculty schedules, leading to optimized classroom utilization and timely allocation of teaching resources.

**Reduced Administrative Workload:** By automating the attendance monitoring process and centralizing scheduling management, the proposed system reduces the administrative burden on school staff. This allows administrators to allocate their time and effort more effectively toward other critical tasks, such as enhancing the overall quality of education.

**Enhanced Transparency and Communication:** The proposed system promotes transparency between faculty members and the school administration by providing a platform that displays accurate attendance records and class schedules. This transparency fosters trust and clear communication between stakeholders, contributing to a harmonious academic environment.

**Data-Driven Decision Making:** With the ability to generate comprehensive reports on attendance and scheduling, the school administration gains access to valuable data for informed decision making. These insights can be instrumental in identifying patterns, optimizing resource allocation, and enhancing the overall operational efficiency of the school.

**Elevated Academic Performance:** The successful implementation of the proposed system can lead to improved academic outcomes. With faculty members having streamlined access to their schedules and administrative tasks, they can focus more on teaching and fostering a conducive learning environment, ultimately benefiting the students' educational experience.

**Contribution to Future Research:** The development and implementation of the proposed system contribute to the growing body of research in educational technology and administration. Future researchers can build upon the methodology, insights, and technical aspects of this study to explore further enhancements or adaptations of the system for different educational institutions or specific use cases.

**Experiential Learning for Researchers:** The researchers engaged in this study stand to gain valuable experiential learning opportunities. They will acquire hands-on experience in designing, developing, and implementing a complex software solution tailored to a real-world problem. This experience equips them with practical skills in project management, software development, user interface design, and collaboration.

In conclusion, the "Biometric Attendance Monitoring with Scheduling Management System" represents a pivotal step forward for the Sto. Niño Diocesan School and its stakeholders. By harnessing the power of biometric technology, this study offers a transformative solution that not only addresses immediate challenges but also sets the stage for a more efficient, transparent, and data-driven educational environment. The significance of this study lies not only in its potential to streamline administrative processes but also in its contribution to the broader field of educational technology research. As the proposed system is embraced and refined, it has the capacity to elevate academic performance, enhance communication, and empower administrators, educators, and students alike. This undertaking not only benefits the present but also lays the foundation for a more innovative and responsive educational landscape in the future.

**DEFINITION OF TERMS**

In the context of this study, the following terms are presented with their respective definitions to ensure clarity and comprehension:

**Biometric Technology**: An advanced method that uses unique physical traits like fingerprints or facial features for identifying individuals. In this context, biometric technology ensures accurate identification in faculty attendance tracking.

**Class Scheduling Management**: The strategic organization and allocation of class sessions, instructors, and resources to optimize the educational experience. This process ensures efficient resource utilization and coherent scheduling.

**Automated Fingerprint Recognition:** A sophisticated process that digitally matches fingerprints to identify individuals. Although initial fingerprint recognition sensitivity challenges exist, this technology enhances precision in identification.

**Transparency:** The quality of making pertinent information, such as attendance records and class schedules, easily accessible to all stakeholders. This fosters a clear and open flow of information between educators and administrators.

**Data-Driven Decision Making:** The practice of using factual information for making informed judgments. This practice is facilitated by generating comprehensive attendance and scheduling reports for resource management and strategic planning.

**User-Friendly Interface:** An intuitive graphical platform designed for seamless interaction between users and software. This interface enhances accessibility and ease of use for educators and administrators.

**Privacy and Security Concerns:** Ethical considerations regarding safeguarding personal information and ensuring data confidentiality. These concerns are paramount, particularly when implementing biometric technology.

**Educational Outcomes:** The measurable achievements resulting from educational efforts, encompassing academic performance and holistic development. Optimized scheduling practices contribute to enhanced educational outcomes.

**Institutional Efficiency:** The systematic optimization of resources and processes for operational excellence within an institution. Streamlining attendance and scheduling administration enhances institutional efficiency.

**Experiential Learning:** A pedagogical approach wherein knowledge is gained through hands-on engagement. Developers involved in this project gain practical experience through software development.

**Cloud-Based Software:** Software that operates via internet connectivity, facilitating remote access. This approach enables utilization across diverse devices and locations.

**Real-Time Monitoring**: The contemporaneous tracking of events as they unfold. This feature empowers timely access to updated attendance and scheduling information.

**Conflict Resolution:** The strategic resolution of inconsistencies, particularly scheduling conflicts. Automated conflict resolution mechanisms mitigate scheduling dilemmas.

**Centralized Database:** A singular repository for streamlined data storage and retrieval. A centralized database architecture facilitates efficient management of attendance and scheduling records.

**Optimized Resource Allocation:** The judicious allocation of resources to maximize utility and efficiency. This management contributes to optimized classroom, faculty, and temporal resources.

**Streamlined Administrative Processes:** The refinement of administrative procedures to mitigate inefficiencies. Automation of attendance and scheduling tasks facilitates streamlined workflows.

**User Authentication:** The process of verifying user identity before system access. Biometric authentication ensures robust user validation.

**User Preferences:** Personal inclinations and selections of users. Considering instructor preferences enhances scheduling.

**Shift-Swapping:** The interchange of work shifts among employees. This practice fosters flexibility and work-life balance.

**Drag-and-Drop Scheduling:** A user-friendly interface allowing manipulation of elements through dragging and dropping. This feature enhances scheduling interactions.

**Cloud-Based Scheduling:** Scheduling tasks facilitated through online platforms. Remote access and collaboration are enabled through this approach.

**Ethical Considerations:** Contemplation of moral implications prior to decision-making. Ethical reflection is critical, particularly in biometric technology usage.

**User Adoption:** Assimilation and utilization of new technology by end-users. User-centric design enhances adoption.

**Operational Efficiency:** Augmentation of operational efficacy for resource optimization. Automation and optimization foster operational efficiency.

**Technical Failures or Glitches:** Unanticipated software malfunctions. Robust testing and quality assurance mitigate these issues.

**Stakeholders:** Individuals or entities with vested interests in a project. Stakeholders encompass educators, administrative personnel, students, and guardians.

REFERENCES

Abdullah, P., & Younus Abdullah, P. (n.d.). Class Schedule System Programming View project Class Schedule System. https://doi.org/10.13140/RG.2.2.13580.87680

Ata Jahangir, M., Atanu, S. R., Liefa, liao, Hong, L., Mehdi, G., Aaqif Afzaal, A., & Seyed Mojtaba, H. B. (2021). Automation Attendance Systems Approaches: A Practical Review. BOHR International Journal of Internet of Things, Artificial Intelligence and Machine Learning, 1(1), 23–31. https://doi.org/10.54646/bijiam.005

Biometric Attendance and Access Control System - Matrix. (n.d.). Retrieved February 20, 2023, from https://www.matrixaccesscontrol.com/

CollegeNET - Serving Higher Ed Admissions, Scheduling & more! (n.d.). Retrieved February 20, 2023, from https://www.collegenet.com/

Coursedog | Integrated Academic Operations Platform. (n.d.). Retrieved February 20, 2023, from https://www.coursedog.com/

CrossChex is access control and time & attendance management software solution | Anviz Global--Powering a Smarter World. (n.d.). Retrieved February 20, 2023, from https://www.anviz.com/CrossChex

Facca, D., Smith, M. J., Shelley, J., Lizotte, D., & Donelle, L. (2020). Exploring the ethical issues in research using digital data collection strategies with minors: A scoping review. PloS One, 15(8). https://doi.org/10.1371/JOURNAL.PONE.0237875

Gawande, U., Golhar, Y., & Hajari, K. (2017). Biometric-based security system: Issues and challenges. Studies in Computational Intelligence, 660, 151–176. https://doi.org/10.1007/978-3-319-44790-2\_8

How a Biometric Attendance System Can Benefit Your Business. (n.d.). Retrieved February 19, 2023, from https://www.aratek.co/news/how-a-biometric-attendance-system-can-benefit-your-business

Importance of Scheduling Tasks and its Benefits | Profit.co. (n.d.). Retrieved February 19, 2023, from https://www.profit.co/blog/task-management/importance-of-scheduling-tasks-and-its-benefits/

Kim, J., & Lee, K. S. S. (2020). Conceptual model to predict Filipino teachers’ adoption of ICT-based instruction in class: using the UTAUT model. Https://Doi.Org/10.1080/02188791.2020.1776213, 42(4), 699–713. https://doi.org/10.1080/02188791.2020.1776213

Kumar, M., Sharma, S. C., Goel, A., & Singh, S. P. (2019). A comprehensive survey for scheduling techniques in cloud computing. J. Netw. Comput. Appl., 143, 1–33. https://doi.org/10.1016/J.JNCA.2019.06.006

Labuanan, F. R. E., Tapaoan, S. J. E., & Camungao, R. Q. (2019). Application of representation and fitness method of genetic algorithm for class scheduling system. International Journal of Recent Technology and Engineering, 8(2), 1816–1821. https://doi.org/10.35940/ijrte.B1026.078219

Mohamed, B. K. P., & Raghu, C. v. (2012). Fingerprint attendance system for classroom needs. 2012 Annual IEEE India Conference, INDICON 2012, 433–438. https://doi.org/10.1109/INDCON.2012.6420657

Nurse Scheduling Software | Healthcare Scheduling Software. (n.d.). Retrieved February 20, 2023, from https://schedule360.com/

Sarangi, S. K., Paul, A., Kishor, H., & Pandey, K. (2021). Automatic Attendance System using Face Recognition. 2021 International Conference in Advances in Power, Signal, and Information Technology, APSIT 2021. https://doi.org/10.1109/APSIT52773.2021.9641486

Softwares | Realtime Biometrics | India’s Leading Biometrics Company. (n.d.). Retrieved February 20, 2023, from https://realtimebiometrics.com/software

Web-based Open Integrated Security Platform - BioStar 2 | Suprema. (n.d.). Retrieved February 20, 2023, from https://www.supremainc.com/en/platform/hybrid-security-platform-biostar-2.asp

What is a Biometric System? - Definition from Techopedia. (n.d.). Retrieved February 19, 2023, from https://www.techopedia.com/definition/26990/biometric-system

Workforce Management Solutions | SubItUp. (n.d.). Retrieved February 20, 2023, from https://www.subitup.com/