

Consultation Appointment Scheduler Through Android Application

Alvin B. Petina¹, Benjie M. Ehilla¹, Rey Mark V. Baluyot¹, Glory Mae M. Flores¹,
Stefan D. Solana¹, Cristelle Ann G. Cagadas¹, Jerah Mae B. Ferrer¹

^{1,2,3}*Computer Engineering Program, College of Engineering Education
University of Mindanao, Matina, Davao City, Philippines*

¹alvinpetina@umindanao.edu.ph

¹behilla@umindanao.edu.ph

¹rbaluyot@umindanao.edu.ph

¹gloryflores@umindanao.edu.ph

¹ssolana@umindanao.edu.ph

¹cristelleanncagadas@umindanao.edu.ph

¹jbfeerrer@umindanao.edu.ph

I. INTRODUCTION

The student consultative structure is one of many ways in which the University listens to the student voice, making use of online forums and face-to-face meetings. By becoming a volunteer and participating, you can directly influence changes in University strategy and policy. Consultation with students influences many, many aspects of the student experience. Consultation on student ratings is recognized as an important strategy to support university teachers in learning from student ratings feedback. However, there is little evidence to suggest which practices and strategies are most important for successful consultation. As the use of student ratings increases, such evidence becomes increasingly important. While teachers' professional development has moved a considerable distance over the past two decades to include collaboration and inquiry as essential components, students' voices remain notably absent from the Endeavor. Most professional development for teachers does not involve opportunities for them to hone their practice in direct collaboration with students. This omission sits in stark contrast to the heavy emphasis placed on student voice. Consultations appointments are a legal requirement for every legally established university, campus, or organizations. The impact that it withholds is astonishingly remarkable, from a simple ideology to a lifetime commitment of perspective. The student's mindset and perspective is an important aspect that shapes the future of mankind, it is the basis and the foundation of the next concurring generation to come. Whether the change is not futile, the ideology is what brings humanity together, as how historical events have disclosed it. Communications is fundamental to the existence and survival of humans as well as to an organization. It is a process of creating and sharing ideas, information, views, facts, feelings, etc. among the people to reach a common understanding. Communication is the key to the Directing function of management. Being able to communicate effectively is perhaps the most important of all life skills. It is what enable to pass information to other people, and to understand what is said to a group.

You only have to watch a baby listening intently to its mother and trying to repeat the sounds that she makes to understand how fundamental the urge is to communicate. Having strong communication skills aids in all aspects of life – from professional life to personal life and everything that falls in between. From a business standpoint, all transactions result from communication. Good communication skills are essential to allow others and yourself to understand information more accurately and quickly. In contrast, poor communication skills lead to frequent misunderstanding and frustration. Communication skills are more important than ever, for all fields of Endeavor. Whether you are an engineer or a communication scholar, having a firm grasp of communication will undoubtedly be a key role in your success. Oftentimes, people with great technical skills reach a point in their careers where they are no longer promoted, because of their inability to communicate effectively. Professors often tell anecdotal stories about students that have been hugely successful in gaining jobs right out of college, but then struggle to get promoted into management and leadership roles beyond their technical duties. This is because they were lacking in one fundamental skill that would have helped them shine above all their competition: communication. Appointments are a part of life both in personal and professional fields. Time is a precious resource and maintaining an appointment is an important element for success in life. Without the respect it deserves, the value of time can lead to lost opportunities. Keeping an appointment is to be on time and being on time demonstrates diligence and dependability. However, in recent times, people have innumerable explanations for not being on time. People hold personal and professional obligations as reasons to get away from their own obligations in keeping appointments. Time is a precious resource and maintaining appointments is an important attribute essential for success in life. Making an appointment is a promise to meet at a defined time and adhering to it strengthens and reveals integrity. It also indicates that you honor your commitments and can be trusted.

This in turn impacts business relationships and projects a positive impression. Since it is a promise, not maintaining appointments can amount to stealing. This is because the other person has been robbed of the time waiting for you, which he will never get back. Being on time not only builds self-confidence, but others consider such a person to be dependable. Besides, it reveals how one values time. Adhering to schedules reduces the pressure of time and possibly results in better decision-making. One is more in control of the situation because one is not under pressure; being calm leads to improved decision-making. It also indicates self-discipline, and this in itself is a valuable attribute. People try to pack in more productivity into the time they have which can be disastrous. They not only fail to keep appointments, but in the rush to do too many things at the same time, they end making a mess of the work in hand. Being late for appointments can be a source of stress; it might impact the outcome of the meeting and the presentation. It can also lead to strained relationships be it at the workplace or in the personal life. In addition, missing appointments can take a toll on one's life. It can lead to lost opportunities; lead to embarrassment forcing one to come up with lame excuses; and make life more complicated. Being on time was a way of showing respect to others, according to George Washington, and he expected others to show him the same respect. Appointments are a part of life both in personal and professional fields. However, unless one values one's own time, respects himself and has self-discipline, it is not possible to expect him to respect and value others' time. Information literacy helps students recognize misleading, out-of-date, or false information. It also helps them sort through the data and interpret it intelligently. Libraries full of books are still available and a valuable resource for students, but information literacy includes the Internet and beyond.

Android continues to be one of the leading mobile OS and development platforms driving today's mobile innovations. Android appears complex ^[1]. But offers a variety of organized development kits to those coming into Android with differing programming language skill sets ^[2]. Mobile data networks together with the Web provide companies and organizations with many new possibilities. With third and fourth generation digital media phones, broadband digital wireless networks, and mobile hypermedia, new concepts for electronic commerce and communication can be studied, modelled, constructed, and measured. The mobility of users calls for malleable patterns of conducting electronic business because handheld portable devices have many restrictions, such as a small display, limited input facilities, small memory, small computational resources, and a narrowband network connection ^[3]. Layouts define the structure for a user interface in Android applications and app widgets. In Android applications, each Android activity handles the user interface operations, so all activities have a layout design. App widgets are the small interaction interfaces placed in the home screen of Android for easy access to the main functions of an application. Layouts are being used for the structured design of these interfaces ^[4]. The development of android application

in all aspects is an emerging technology for the modernization of the future digitally ^[5].

PHP is a powerful scripting language designed to enable developers to create highly featured Web applications quickly ^[6]. MySQL is a fast, reliable database that integrates well with PHP and is suited for dynamic Internet-based applications ^[7]. One of the main factors determining the success of a smartphone platform is the application that supports it. It is clear from the success of the Android Phones that applications play a very vital role in determining whether a new platform swims or sinks ^[8].

Communication and information deployment is an important aspect, especially in big organizations such as universities and companies ^[9]. So, here is an opportunity to have a tailored, individualized consultation with an expert to explore the best practices on ways to enhance teaching effectiveness and improve student learning across all types of courses and students ^[10]. A supposed meeting scheduler is as important as communication. This holds any possible combination and outcomes in a single meeting as possible ^[11]. This would save time for students processing an unnecessary form and would speed up access for students who otherwise spend time completing the full e-consultation, waiting for a response, and then needing to wait for a telephone consultation anyway ^[12]. A lot of centers are offering consultation. One of that is the Eberly Centre which offers consultation for educators to talk about certain issues in teaching matters and how to prevent and improve the teaching techniques that the teacher offers to the students. It will be done by working jointly with the instructor to further discuss the weaknesses and strengths when it comes to teaching then provide solutions to the given problem ^[13]. To provide effective indirect services, consultants must be able to conceptualize the issues within an ecological context and consider sociocultural variables that move beyond ethnicity and race. Qualitative and indigenous research methodologies have important roles in driving the field forward in exploring important sociocultural and contextual factors that contribute to effective consultation services ^[14]. Those capabilities that Android applications offered, will be the basis of the proposed online system. This study proposes the development of an online system based on Android application, that directs access to information ^[15].

Consulting your teachers to discuss a particular problem especially academic inclined problems is quite troublesome for students. For a reason that the teacher may not be around at that time that the student will go to the consultation room making the effort of the student wasted. It is also time consuming on the part of the student since the possibility of the availability of the instructor in that specific time is uncertain.

This system aims to create an android application that will be accessible to faculties and students. To directly perceive the time availability of the professor for consultation matters. Moreover, this application can set a schedule for the student on when and where the consultation will happen. Thus, this

application is significant especially on the time management of the faculty and student.

This application will help to promote a hassle-free online system for both students and the faculty of the Computer Engineering Program. For the students, it would be an efficient way to schedule an appointment with the usage of an online application since most of the students already use smartphones and they can access the internet using campus Wi-Fi. For the professionals, it would be also easy for them to know the student's profile and the consultation time will happen that the required number of hours allotted will be utilized for a consultation appointment only.

This project provides limited access exclusive to the Computer Engineering Faculty and Students. On the process of scheduling an appointment, students can only be scheduled through faculty's scheduled time. Booking an appointment would be done the day before the scheduled time. Allotted time would only take an hour or less. The availability of the system would only be limited to Android operating systems. The schedule of the faculty would only be from Mondays to Fridays and it would be one student per consultation time per week.

II. MATERIALS AND METHODS

A. Software Design

The software design of this study revolves around Android Studio. Java, being the primary and legal partner of an android studio, will be used for the materializing of the interconnection of the entire application. Database is a necessary feature of this study. For this, PHP will be used to achieve its database, give and fetch functionality. Through the Android studio-Java, the development of the GUI, functionality and overall interconnection will be done. The entire functionality and interconnectivity of the database with the android application, PHP will materialize the connectivity of the application through the online database.

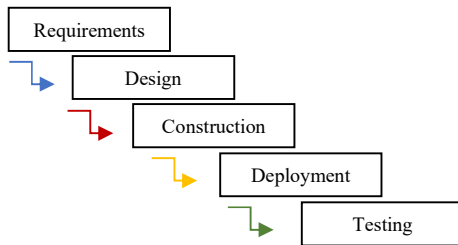


Figure 1. Waterfall Software Development Life Cycle

B. System Flowchart

The overall process of this android application is the interconnectivity of the faculty and university students through the android application, respectively. The flow starts with the main page which asks for the login credentials of either the student or the faculty, registration is empowered for

its continuation, which is also available from the main page. For the student's perspective, upon starting the consultation feature, the student will have the choice of selecting the respective faculty that the students adhere to consulting. After the selection, the student will be able to select his proposed day and time of consulting as well as his credentials and corresponding matter, which will then be a pending request for the selected faculty. For the faculty's perspective, after logging in he/she will then be greeted with the 'show pending appointments' button. Here, the faculty will be able to select and view the pending consultation request/s of the students. The faculty will then decide if he/she will approve or reject the request as well as reschedule. If rescheduling is exercised, the faculty will then select the appropriate schedule for the consultation appointment.

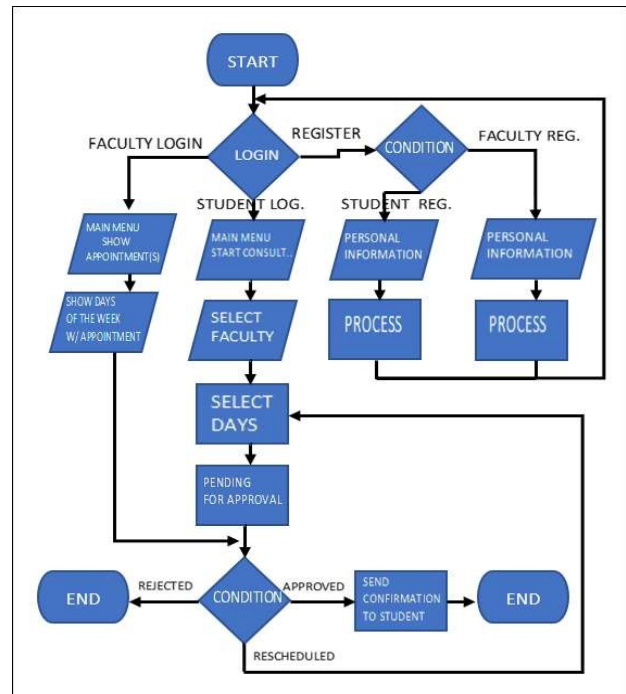


Figure 2. Flowchart displaying the step-by-step process done by the system

C. System Requirements

Since this project is online-based, PHP will act as the database of the application. PHP is commonly used Open source scripting language with a syntax of Java. It will be used for collecting, storing, and disseminating data in the form of information through the entire program.

The other program that will be used for this application is the Android Studio-Java wherein this type of software is for creating smartphone applications on the Android platform. This can be done through drag-and-drop UI design and as well as block-oriented visual programming.

SPECIFICATION	MINIMUM SYSTEM REQUIREMENTS
O.S	Android 4.1. 2 Jelly Bean or Higher
PROCESSOR	1Ghz Single – Core or higher
RAM	512MB or higher
Internal Storage	4GB or higher
Mobile Networks and Data	3G/4G or higher
GPU Graphical Controller	Video Core IV

Figure 3. Applications System Requirements

D. Budgetary Plan

MATERIALS/TOOLS	AMOUNT
Play Store charge for uploading App	P 1, 500
GoDaddy server hosting	P 250 per month
TOTAL	P 1, 750

Figure 4. Overall Budget Amount of the System

E. Gantt Chart

CONSULTATION USING MOBILE APPLICATION	2020										
	FEBRUARY				MARCH				APRIL		
				4th	1st	2nd	3rd	4th	1st	2nd	3rd
PLANNING AND RESEARCH											
PROTOTYPEANALYSIS AND DESIGN											
CODE PRODUCT AND TESTING											
INTEGRATION OF SOFTWARE											
PROTOTYPE AND TESTING											

Figure 5. Gantt Chart of the System

F. Workload Distribution

The project system has been started by the end week of February and all team members are gathered up in planning and research. The prototype analysis and design will start in the first week until the end of March which all the team members will conduct. Stefan Solana and Alvin Petina will then start the coding product and testing by March and April.

All team members are working for integrating the software by April. The prototype and testing will also be conducted by the team members by last week of April to second week of May and to be followed by overall testing. Lastly, Glory Mae Flores and Alvin Petina will soon end up the finalization of the document papers.

REFERENCES

- [1] J. F. DiMarzio, Beginning Android® Programming with Android Studio. 2016.
- [2] A. Gerber and C. Craig, Learn Android Studio. 2015.
- [3] "Android Application Development With Android Studio," Expert Android® Studio, pp. 45–79, 2017.
- [4] "Layouts with Android Studio," Expert Android® Studio, pp. 115-141, 2017.
- [5] L. Ghandi, C. Silva, D. Martinez, and T. Gualotuna, "Mobile application development process: A practical experience," Iber. Conf. Inf. Syst. Technol. Cist., 20
- [6] M. ZANDSTRA, PHP Objects, Patterns, and Practice. 2016.
- [7] F. M. Kromann, Beginning PHP and MySQL. 2018.
- [8] J. F. Dimarzio, "Beginning Android® Programming with Android Studio," 2016.
- [9] Reetesh V. Golhar, Prasann A. Vyawahare , Pavan H. Borghare, Ashwini Manusmare, "Design And Implementation Of Android Base Mobile App For An Institute" (2016).
- [10] University of Illinois Board of Trustees, et al. (2020). Teaching Consultation .Retrieved from <https://citl.illinois.edu/citl-101/teachinglearning/conferences-workshops/teaching-consultation>
- [11] Zongwei Zhu, Beilei Sun, Xi Li, Xuehai Zhou, "Application-aware Group Scheduler for Android" (2015)
- [12] J. Banks et al., "Use of an electronic consultation system in primary care: A qualitative interview study," Br. J. Gen. Pract., vol. 68, no. 666, pp. e1–e8, 2018
- [13] Carnegie Mellon University. (2020).Teaching Excellence & Educational Innovation: One-on-One Teaching Consultations. Retrieved from <https://www.cmu.edu/teaching/assessment/assessteaching/teachingconsultations.html>
- [14] Goforth, A. N. (2020). A Challenge to Consultation Research and Practice: Examining the "Culture" in Culturally Responsive Consultation. Journal of Educational and Psychological Consultation, 1– 8.
- [15] Istiadi, I., Rofii, F., Qustoniah, A., Marisa, F., & Putra, G. D. (2016). AN ONLINE EXPERT SYSTEM FOR CONSULTATION SERVICES USING A MOBILE APPLICATION INTERFACE. Jurnal Teknologi, 78(6-3), 2015.

