CHAPTER ONE

INTRODUCTION

1.1 Background of the Project

In organization, the personal assistants to the directors usually do the work of scheduler and reminder. That means, they take record of important tasks, meeting as well as appointments to be done by the directors or other officers within the organization. This research work focuses Platinum Insurance Plc. and how they carry out their daily job routine in respect to keeping logs of appointments which needs to be done within a predetermine time frame. Platinum Insurance Plc. is an organization that specialize in protecting insured lives/properties.

Most of the top level management staff within the organization have at least a personal assistant that help remind them always about the tight schedules and appointment in order for them to keep up with their job role and the loads of duties vested on them. Some that does not have personal assistants often keep log cards for keeping their appointment records and this sometimes do get lost if not appropriately kept. Some personal assistant also keep track of appointment by using these log cards as well while some that have dedicated computer system within the organization make use of quick access application like sticky notes to track all logs.

One of the major problems in having personal assistant is that they are actually paid like normal staff as well and this is not very cost effective for an organization especially when the finance can be channel into other effective area for proper management. Sometime, the personal assistants as well fail in carrying out their duties especially when the numbers of appointment they have

to keep log on are much. They tend to forget and figure out the appropriate time to remind their employers of the appointment.

Having analyzed the daily routine in the organization on how appointment are handled within the organization, this project research evaluated and resulted to solution to some of the constraint identified and suggested better way of solving then which is through the development of an automated SMS scheduling system for scheduling appointments and reminding the user automatically either by SMS of upcoming appointments. Some of these problems identified in the current and existing system are given below in the next section of the chapter.

1.2 Statement of Problems

Study shows that there are many drawbacks identified in the existing system of managing events and manually scheduling in Platinum Insurance Plc. Event scheduling is a very simple task but tends to be forgotten often especially when there are tons of work routines to catch up with. The cost of hiring a personal assistant is very high as the assistant will be paid as a normal staff within the organization. Sometimes, lack of frequent communication between staff and clients can affect the way a client thinks about the organization which might bring about bad reputation to the company. Sending SMS to every participant of an event is usually time consuming, considering the protocols involved.

1.3 Aim and Objectives of the Project

The aim of this project is to design and implement Automatic Android SMS Scheduler for sharing information across Platinum Insurance Plc. At a schedule time.

The following are the objectives of this project;

I. To develop an easy to use android mobile application for event and task scheduling.
II. The application serves as a reminder because it helps users automatically send messages to clients, staff and other contacts when necessary without the user's effort.
III. The application will help create a good relationship atmosphere between the organization, staffs and clients.

1.4 Significance of the Project

This project research will emphasize more on horizontal software design which involved creating and customizing the software for just an organization bearing in mind the organization goals. Therefore, if it is adopted, this project research will enhance the capability of the usage of information and technological tools within an organization which in turn create a better image of every organization that adopts it. This project research will as well improve the economic growth of the country at large by portraying a futuristic advantage about our nation in terms of technological growth.

1.5 Scope of the Project

The scope of this project covers the use of Automatic Android SMS Scheduler for sharing information across Platinum Insurance Plc. At a schedule time. Furthermore, the scope of this project also covers two broad area of information technology and these are Artificial intelligence (AI) and Management Information System (MIS). Artificial intelligence because of its capability to act as instructed by the user and generates an automatic response to event and tasks. It covers Management Information System on the other hand because of its ability to manage and disseminate information in respect to MIS rules.

1.6 Limitations of the Project

Few setbacks were encountered during the course of this research work and predetermine constraint that can hinder the effectiveness of the proposed system. They are as follows

I. The cost of surfing the internet and Phone number carrier.

II. Insufficient library materials for this project research work

1.7 Definition of Terms

1. Administration: the activities that relate to running a company, school, or other organization or a group of people who manage the way a company, school, or other organization functions.
2. SMS: SMS is an abbreviation or short form of “Short Message Services”
3. Schedule: a plan for carrying out a process or procedure, giving lists of intended events and times.
4. Scheduler: a person or machine that organizes or maintains schedules.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

SMS or text messaging is an effective tool for business, health services, educational institutions and other organizations because of its simplicity, ease of use and reach. SMS is available on virtually all mobile phones and over all mobile networks within a reach of over 5 billion phones worldwide, making it the world's most pervasive communications technology (McDonald's, 2010). In this chapter, the research study explores and expose different writers point of view on SMS and also how it is being used to aide different sectors and organization as well as setbacks. This chapter also explores the role of a personal assistant and challenges as well as Automated Personal Assistance.

2.1 Meaning of SMS

According to Oludare, Ayodele, Olalekan, &Adeleke (2013), SMS is an acronym used in the world of communications technology. It stands for Short Messaging Service which is a protocol used in communications that gives way to the exchange of short text messages from one mobile telephone device to another. SMS or text messaging largely dominates today's means of communication since seventy-four percent of all cell phone users send and receive text messages nowadays. The technology behind SMS has paved the way for the rapid growth of improvement of text messaging that has now

allowed users to broadcast SMS text messages not just from mobile phones but also from computers with the use of SMS software and through public SMS gateways. The link between text messaging to SMS technology now co notates the terminology of "SMS" as the act of texting or sending text messages even with the use of a different communications protocol.

Similarly, Ahonen (2011) said SMS (short message service) is a text messaging service component of most telephone, Internet, and mobile device systems. It uses standardized communication protocols to enable mobile devices to exchange short text messages. SMS, as used on modern devices, originated from radio telegraphy in radio memo pagers that used standardized phone protocols. These were defined in 1985 as part of the Global System for Mobile Communications (GSM) series of standards. The first SMS message was sent in 1992.

The protocols allowed users to send and receive messages of up to 160 alpha-numeric characters to and from GSM mobiles. Although most SMS messages are mobile-to-mobile text messages, support for the service has expanded to include other mobile technologies, such as ANSI CDMA networks and Digital AMPS.

SMS is also employed in mobile marketing, a type of direct marketing. According to one market research report, as of 2014, the global SMS messaging

business was estimated to be worth over $100 billion, accounting for almost 50 percent of all the revenue generated by mobile messaging (Ahonen, 2011).

2.2 Initial Concept and Early Development of SMS

Adding text messaging functionality to mobile devices began in the early 1980s. The first action plan of the CEPT Group GSM was approved in December 1982, requesting that "The services and facilities offered in the public switched telephone networks and public data networks ... should be available in the mobile system (Hillebrand et al., 2010). This plan included the exchange of text messages either directly between mobile stations, or transmitted via message handling systems in use at that time.

The SMS concept was developed in the Franco-German GSM cooperation in 1984 by FriedhelmHillebrand and Bernard Ghillebaert. The GSM is optimized for telephony, since this was identified as its main application. The key idea for SMS was to use this telephone-optimized system, and to transport messages on the signaling paths needed to control the telephone traffic during periods when no signaling traffic existed. In this way, unused resources in the system could be used to transport messages at minimal cost. However, it was necessary to limit the length of the messages to 128 bytes (later improved to 160 seven-bit characters) so that the messages could fit into the existing signaling formats. Based on his personal observations and on analysis of the typical lengths of

postcard and Telex messages, Hillebrand argued that 160 characters were sufficient to express most messages succinctly.

According to the European Telecommunications Standards Institute (ETSI), SMS could be implemented in every mobile station by updating its software. Hence, a large base of SMS-capable terminals and networks existed when people began to use SMS. A new network element required was a specialized short message service center, and enhancements were required to the radio capacity and network transport infrastructure to accommodate growing SMS traffic.

Again, Hillebrand, (2002) said that the technical development of SMS was a multinational collaboration supporting the framework of standards bodies. Through these organizations the technology was made freely available to the whole world. The first proposal which initiated the development of SMS was made by a contribution of Germany and France into the GSM group meeting in February 1985 in Oslo. This proposal was further elaborated in GSM subgroup WP1 Services (Chairman Martine Alvernhe, France Telecom) based on a contribution from Germany. There were also initial discussions in the subgroup WP3 network aspects chaired by Jan Audestad (Telenor). The result was approved by the main GSM group in a June '85 document which was distributed to industry. The input documents on SMS had been prepared by FriedhelmHillebrand (Deutsche Telekom) with contributions from Bernard

Ghillebaert (France Télécom). The definition that FriedhelmHillebrand and Bernard Ghillebaert brought into GSM called for the provision of a message transmission service of alphanumeric messages to mobile users "with acknowledgement capabilities". The last three words transformed SMS into something much more useful than the prevailing messaging paging that some in GSM might have had in mind.

SMS was considered in the main GSM group as a possible service for the new digital cellular system. In GSM document "Services and Facilities to be provided in the GSM System,"[3] both mobile-originated and mobile-terminated short messages appear on the table of GSM teleservices.

The discussions on the GSM services were concluded in the recommendation GSM 02.03 “TeleServices supported by a GSM PLMN.” Here a rudimentary description of the three services was given:

1. Short message mobile-terminated (SMS-MT)/ Point-to-Point: the ability of a network to transmit a Short Message to a mobile phone. The message can be sent by phone or by a software application.
2. Short message mobile-originated (SMS-MO)/ Point-to-Point: the ability of a network to transmit a Short Message sent by a mobile phone. The message can be sent to a phone or to a software application.
3. Short message cell broadcast.

The material elaborated in GSM and its WP1 subgroup was handed over in Spring 1987 to a new GSM body called IDEG (the Implementation of Data and Telematic Services Experts Group), which had its kickoff in May 1987 under the chairmanship of FriedhelmHillebrand (German Telecom). The technical standard known today was largely created by IDEG (later WP4) as the two recommendations (the two point-to-point services merged) and GSM 03.41 (cell broadcast). WP4 created a Drafting Group Message Handling (DGMH), which was responsible for the specification of SMS. Finn Trosby of Telenor chaired the draft group through its first 3 years, in which the design of SMS was established. DGMH had five to eight participants, and Finn Trosby mentions as major contributors Kevin Holley, EijaAltonen, Didier Luizard and Alan Cox. The first action plan mentions for the first time the Technical Specification 03.40 "Technical Realisation of the Short Message Service". Responsible editor was Finn Trosby. The first and very rudimentary draft of the technical specification was completed in November 1987. However, drafts useful for the manufacturers followed at a later stage in the period. A comprehensive description of the work in this period is given in.

The work on the draft specification continued in the following few years, where Kevin Holley of Cellnet (now Telefónica O2 UK) played a leading role. Besides the completion of the main specification GSM 03.40, the detailed protocol specifications on the system interfaces also needed to be completed

2.3 The Capabilities of SMS

The use of SMS as an effective means of personal communication has expanded the market of text messaging. Businesses, government offices, and even television shows now use this service since SMS is the quickest way to get a message through from one entity to another SMS text messaging is the most widely used data application on the planet, with 2.4 billion active users, or 74% of all mobile phone subscribers sending and receiving text messages on their phones (Oludare et al., 2013). The SMS technology has facilitated the development and growth of text messaging. SMS has unique advantages that other non-voice services do not have. It provides a very convenient method of exchanging small bits of information between mobile users. The reasons for the enormous popularity of SMS have been the fact that this mechanism of sending and receiving messages not only saves time but costs less as well. In many situations one is relatively much more comfortable sending a message via SMS than talking over phone. With new information services and unique value added services being used by the operators the popularity of SMS is increasing further. SMS is also uniquely positioned as a very attractive advertisement medium. SMS should no longer be treated as a value added service in mobile networks. SMS is not only providing a useful mechanism for a host of innovative services over mobile networks but it acting as a point of entry for new data services like WAP in mobile networks.

2.4 Application of SMS Services

2.4.1 As a tool to provide SMS car parking technique

The car parking technique is being implemented using the SMS services on cellular phone in Vienna (Austria). It describes how useful these advanced car parking systems are in providing drivers with information about the structure of the car park systems and the space available for them to park their cars. The availability of the vacant parking space is calculated by means of sensors installed in the parking areas, which count the number of cars that enter to and exit from the parking areas. Also, the number of parking tickets issued at the tickets counter can be used to calculate the vacant spaces. All this information from the sensors and tickets counters is used to update a central database which stores all the information about the areas of the parking space which is vacant or occupied. The advanced parking system also provides advanced, electronic payment options for the customers. The idea behind this electronic payment option is to prevent the customer for having to wait in long queues to buy a ticket. Queues can cause congestion in areas within and outside of parking facilities.

2.4.2 As administrative tool to support communication in higher institution of learning

According to L. Naismith, (2007) from the University of Birmingham reported that an e-mail to text message service called Study Link is employed to support Administrative communication in higher education. Text messaging can be "effectively integrated into both the student and staff experience". Administrative staff members were able to integrate the service into their current means of communicating with students while students were able to effectively receive and act on text messages. Message types include notices of changes and cancellations (e.g., class cancellations), reminders to submit and collect assignments, notices of relevant lectures/activities, individual administration (e.g., warning messages to absentees), instructional messages (e.g. instructions for submitting assignments), and greeting/courteous messages.

According to S. Pramsane, & R. Sanjaya, (2006) development of education services based on short message services. The education information such as the enrollment information, grade release, university announcement, and internship opportunity can be retrieved and/or sent by the students via SMS through a login system. This research points out that administrative support to students via short message services is ideal.

2.4.3 As a tool to support library administrative work

Library services can be improved through SMS-based administrative support. Libraries can reach out and serve students ubiquitously by sending and receiving SMS-based library information. There are a number of areas in library services for which SMS-based messages can be helpful. Basic information alerts such as notices of book reservations, and renewals and overdue reminders are well tailored with this communication medium. One example is the SMS alert services offered by the Hong Kong Institute of Education. Further library services can also be provided via SMS based systems. For example, extended text messaging reference can send SMS messages to and receive answers from librarians as reported in research at Southeastern Louisiana University as a way to further enhance the quality of services provided by libraries in higher education.

2.4.4 As a tool for Teaching and Learning Support (Classroom interaction and discussion)

A SMS-based classroom interaction system is presented in 65. They called this the TXT-2-LRN system. The system allows students to send questions or comments to the instructor’s laptop via SMS. The instructor can read the messages on the screen and decide to respond immediately or wait for later action. The instructor can also provide a quiz to the students and collect results.

Students can look at the projector's screen in real-time graphics showing the results. Short message services encourage interactivity in the classroom, (Traxler, 2005)

2.5 Personal Assistance

According to Shakespeare, Porter, & Andrea (2017), Personal assistance (PA) refers to new ways of delivering personal support which were pioneered by the Independent Living (IL) movement from the 1970s onwards. Rather than care workers being supplied by the state, or by voluntary organizations, disabled people living in the community received direct payments to become employers of their own support staff. The pioneers rejected the word 'care'and wanted to separate tasks from emotions (Shakespeare 2014; Watson et al.2004). For them, the PA model meant a cash service, controlled by the disabled person, in which workers performed the tasks which the disabled person could not do –self-care, domestic tasks, driving –with any need for emotions such as gratitude. In this way, disabled people could become socially independent and regain control of their lives (Morris, 1993).

Personal assistance involves a dynamic blend of social and professional roles, with fluid relational and procedural boundaries. Here, boundaries refer to the social and professional rules or norms that guide behavior and emotions through tacit obligations upon the self and concomitant expectations upon others. In the

context of personal assistance, these norms include the way that disabled employers and PAs feel about one another, how and where they interact, and the type of tasks which are carried out (Shakespeare, Disability Rights and Wrongs Revisited, 2014).

In business context, A Personal Assistant supports an individual in their daily professional or personal life so that they may focus on high-level tasks (Admin, 2019). The duties for this role vary depending on the employer but typically include tasks like screening phone calls, responding to emails, running errands, scheduling appointments, arranging travel, preparing documents and note taking. Sometimes assistants also help with personal tasks like meal prep and light cleaning. As a personal assistant (PA) you'll work closely with senior managerial or directorial staff to provide administrative support, usually on a one-to-one basis. You'll help a manager to make the best use of their time by dealing with secretarial and administrative tasks.

Responsibilities

As a PA, you're often a manager's first point of contact with people from both inside and outside the organization. Tasks are likely to include:

- devising/maintaining office systems, including data management and filing

- arranging travel, visas and accommodation, and occasionally travelling with the manager to take notes or dictation at meetings or to provide general assistance during presentations
- screening phone calls, enquiries and requests, and handling them when appropriate
- meeting and greeting visitors at all levels of seniority
- organizing and maintaining diaries and making appointments
- dealing with incoming email, faxes and post, often corresponding on behalf of the manager
- carrying out background research and presenting findings
- producing documents, briefing papers, reports and presentations
- organizing and attending meetings and ensuring the manager is well prepared for meetings
- Liaising with clients, suppliers and other staff.

In addition to supporting managers, their team and departments, many PAs also have their own personal workload and responsibilities. The scope of the PA's role can be extensive and additional duties may include:

- carrying out specific projects and research
- taking responsibility of accounts and budgets
- working more closely with management if taking on some of the manager's responsibilities

- deputizing for the manager, making decisions and delegating work to others in the manager's absence
- being involved in decision-making processes.

2.6 Automated Personal Assistant

According to Ann Dywer (2012), An automated personal assistant (also known as Intelligent Personal Assistant or Intelligent Virtual Assistant) is a mobile software agent that can perform tasks, or services, on behalf of an individual based on a combination of user input, location awareness, and the ability to access information from a variety of online sources (such as weather conditions, traffic congestion, news, stock prices, user schedules, retail prices, etc.). Similarly, Mathew Hoy (2018) described it as a software agent that can perform tasks or services for an individual based on verbal commands or other forms of commands. He further stated that some virtual assistants are able to interpret human speech and respond via synthesized voices. Users can ask their assistants questions, control home automation devices and media playback via voice, and manage other basic tasks such as email, short messages, to-do lists, and calendars with verbal commands.

There are two types of automated personal assistants: intelligent automated assistants (for example, Apple’s Siri and Tronton’s Cluzee), which perform concierge-type tasks (e.g., making dinner reservations, purchasing event tickets,

making travel arrangements) or provide information based on voice input or commands; and smart personal agents, which automatically perform management or data-handling tasks based on online information and events often without user initiation or interaction (Dwyer, 2012).

CHAPTER THREE

MATERIALS AND METHOD

3.1 Materials

- Android Studio Tool
- Java
- XML

3.1.1 Brief Description of the Materials

Some of the tools that will be used involves but not limited to Android Studio Tool with JAVA and XML as the programming languages since the proposed system will be built on an android operating system to make it readily available for the users. Java is a high-level programming language developed by Sun Microsystems. Instead, Java programs are interpreted by the Java Virtual Machine, or JVM, which runs on multiple platforms. This means all Java programs are multiplatform and can run on different platforms, including Macintosh, Windows, and Unix computers.

3.2 Research Methodology

Qualitative research methodology was used to gather information for this project work and this is because it is more effective in data collection in the context of the research topic. Qualitative analysis involves collecting, analyzing and interpreting data by observation which includes observing the existing and the users and this gave rise to the proposal of a new and effective system. They are two well-known methods of collecting data in qualitative research

methodology which are; direct observation and interview. Interview is the most valuable method used in this project.

3.2.1 Interviewing

In the interview section, some staff were asked questions about how they handle events and appointments within their department and the organization at large. Some of these questions also include what is the benefit of scheduling event, the challenges involved and the ways they feel the problem they identified can be handled for optimal and smooth operation. The top level manager was mostly interviewed because they are the ones that majorly experience these constraints. They were able to give some reliable information and also outlined some of the problems encountered in the current system.

3.2.2 Observation

During this project work some careful observations was employed to discover some problems encountered in the current system. Though, this was not very effective as the interview but we were able to formulate a hypothesis that the existing system is inefficient.

3.3 Detail Analysis of Existing System

The comprehensive study of the existing system to discover the areas of its functional limitation was carried out in the system analysis phase and this helped a lot in gaining a clear understanding of the existing system and what is required of it. From the analysis, it was an established fact that the existing

system has some setbacks which needs improvement in order to suite the current dispensation of Information Technology. Some of the problems found out were carefully analyzed on this chapter and the possible solutions which are the major objective of this research were also laid out.

3.3.1 Problems of Existing System or Drawbacks Identified in the Present System

The present system suffers so many hitches as observed through the investigation carried out. Some of these setbacks include but not limited to the following:

1. Event scheduling seems to be easily forgotten often especially when there are tons of work routines to catch up with.
2. The cost of hiring a personal assistant is very high as the assistant will be paid as a normal staff.
3. Lack of frequent communication between staff and clients can affect the way a client thinks about the organization which might bring about bad reputation to the company.
4. Sending SMS to every participant of an event usually is time consuming considering the protocols involved.

3.3.2 Detailed Definition of the Problem

Some of the problems of the existing system with manual means of event handling within the organization are defined in details as follows:

1. **Forgetting Events/Appointments:** Sometimes, staff especially top level manager tends to often forget event or appointment they are supposed to keep up to and this might lead to a major problem within the staff in the organization or client/customers.
2. **Cost of Hiring a Personal Assistant**: Hiring a personal assistant to keep tab of all appointments and event is an improvement to this setback but extra cost of paying and sustaining the personal assistant will be incurred by the organization.
3. **Time Constraint**. Even when appointments are remembered and kept, it takes a lot of time to compile the names of the appropriate staff to inform or notify about a particular event and this is not very efficient.

3.4 Analysis of the Proposed System

The new system which is a Collaborative Learning System for Computer Programmers has the following objectives:

1 **Simple and Handy Event Scheduling:** The primary aim of this project research is to develop a handy and portable android mobile scheduler for easy events and appointment scheduling.

2 **Automatic Reminder and Dispatcher:** The new system will serve as an automatic reminder that will remind the user of events/appointment that have been scheduled and also dispatched SMS to clients, staff and other contacts necessary without involving the user on this process.

3 **Improved Work Ethics and Standards:** The new system will also help create a very good relationship between the staff of the organization as well as external client by always keeping to appointments.

3.5 New System (Program) Structure

The program structure describes the way the program is being structured using the Modularity, Context Diagram, System and Program flow chart. The software design methodology that was used to achieve the system is the Structured System Analysis and Design Methodology (SSADM) because of its effectiveness and the feature of breaking down a system into its simplest modules. Also with the SSADM, the system was analyzed in different stages, steps and tasks. These will be clearly illustrated by the context diagram and the system modularity.

3.5.1 Context Diagram

The context diagram defines the boundary between system and its environment, showing the entities that interact with it. It shows the whole system and its inputs and outputs, to and from external factors. The external factors or entities that work with the new systems are simply the top-level managers, employees and client. Unlike the managers and other employees that can schedule appointments and as well get notifications, the client/customers can only be notify of an appointment by the system thus the context diagram is as follows.

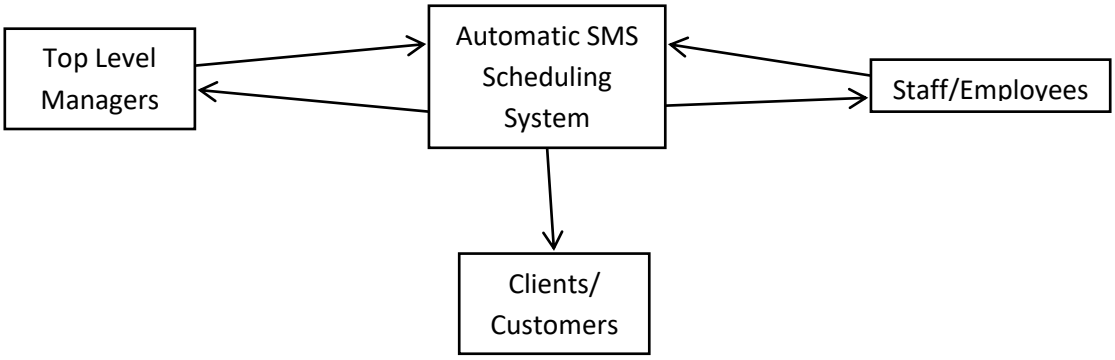


Fig 1. Context Diagram

3.5.2 Modularity

This research work was designed in modules, which could be compiled into a single application. The modules of this program form different parts of the application which are built separately due to their different functions according to the current user level. These modules form up the application which is named "Automatic Android SMS Scheduling System". Some of the modularity created on the application includes: -

1. **Login:** This module is the security module of the system. It detects the intending user of the system if he is authorized to use the system or not.
2. **Register:** The register module takes care of registration of new users into the system. It works by saving the users details in the database for it to be readily available for validation during the login process. It can only be accessed by the system administrators.

3. **Dashboard:** It is the module that serves as the home or the main page in the system. All other operations in the system are access from this module.
4. **Create Schedule/SMS/Appointments:** This module is the primary module whose function is to create appointment schedules by specifying the title, description, possible contact list, time and date as well as notification details.
5. **View Schedules:** This module can be used to view all future and past appointments.
6. **Manage Appointment:** This module takes care of existing appointments records. It can be used to edit appointment records if necessary as well as delete an appointment.
7. **Manage Contact:** In this module, contact list can be managed by storing, editing and deleting contacts from the system. The contact list can also be categorized in this module in other to differentiate client/customers from staff or managers.

3.5.3 Sms Scheduler Application Algorithm Flow Chart

The system flow chart shows the key component associated with the program. It is made up of or built with different shapes or symbols that represent most of the modules as described.

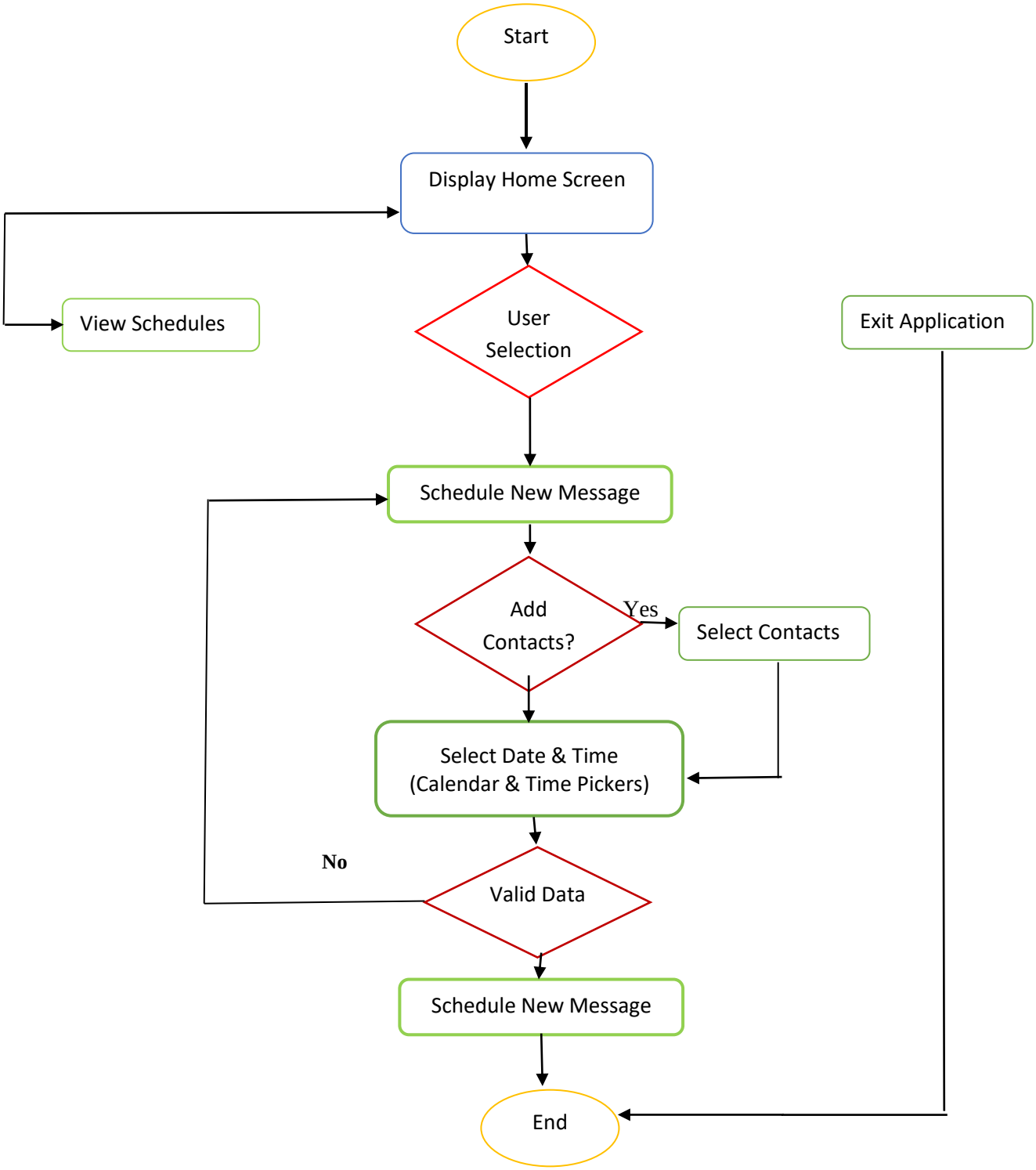
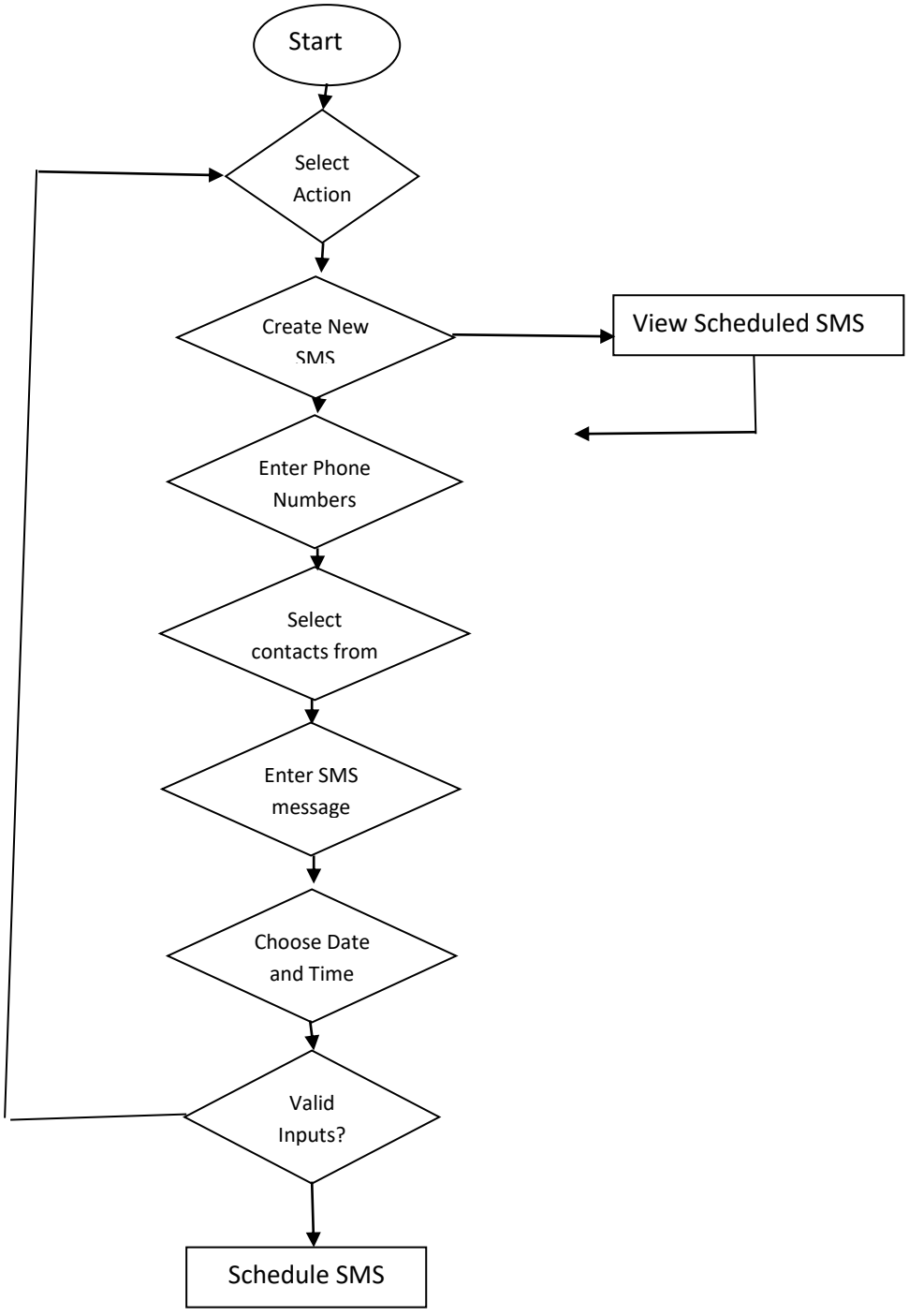


Fig 2. Algorithm Flowchart



Program Flowchart: Dispatch SMS Notifications

3.6 Main Menu Specification

The main menu specification involves the corresponding controls and attributes of the new system with specific functionalities involving input, processing and output procedures of the entire system.

3.6.1 Output Specification

The output of the Automatic Android SMS Scheduler is basically the data that emanates from the name and description of the event as described during the scheduling task and also, the messages that are dispatched by the system which involve different information about a particular event or appointment like meetings, daily tasks, emergency message etc. The output success of the system depends on its input. A badly designed output or an output that fails to adequately present information expected of it tragically invalidates the system's purpose.

3.6.2 Input Specification

Input specifications describe the types of records within the file, the sequence of the types of records, the fields within a record, the data within the field, indicators based on the contents of the fields, control fields, fields used for matching records, and fields used for sequence checking. These inputs include the title of the event, further description, the time and date, selection of reminder option if need be, the message to dispatch if necessary, the time of

dispatching and the contacts of staff or clients to whom the message will be meant for. For an externally described file, input specifications are optional and can be used to add functions to the external description.

3.6.3 File/Database Specification

This consist of the fields and records created in the database to be able to accept the equivalent input data that has to be accepted by the system and the corresponding output it has to give out as its information when the data has been processed accordingly. The user defined size for each record is also stated to create uniformity in the database.

SN	FIELD	DATATYPE	SIZE
1	Id	Int	255
2	Firstname	Varchar	200
3	Lastname	Varchar	200
4	Email	Email	100
5	Phone	Varchar	50
6	Created_at	Date	

Fig 7. Staff Table in Database

SN	FIELD	DATATYPE	SIZE

1	Event_Id	Int	
2	Description	Varchar	
3	Date of Event	Date/Time	
4	Time of Event	12 hour Format	
5	Dispatch	Boolean (Yes/No)	

Fig 8. Event Schedule Table in Database

3.6.4 Security Design Specification

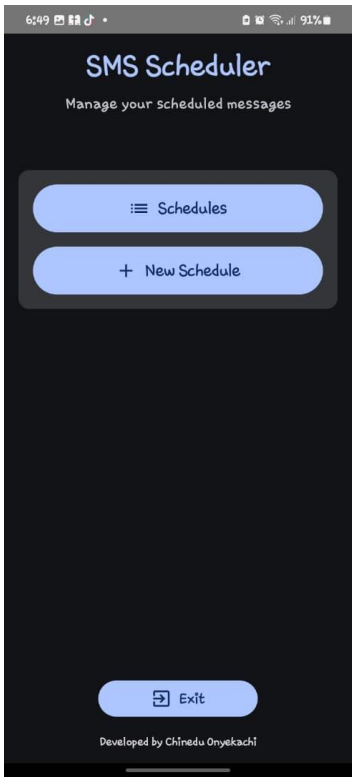
The system was design with security specification considered by restricting access levels according to the system users. These users are validated every time they launch the system by an authorize login platform in order to increase the proper usage and confidentiality of data.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Results

The outputs of the new system are simply information about the scheduled events/appointments. Messages sent by other user can also be regarded as output from the user's end.

Fig.4.1: The interface of SMS scheduler



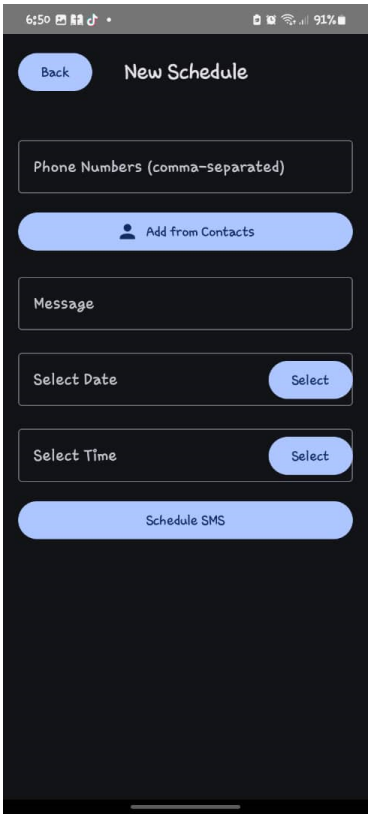


Fig. 4.1.2: The above screenshot shows how to schedule an SMS

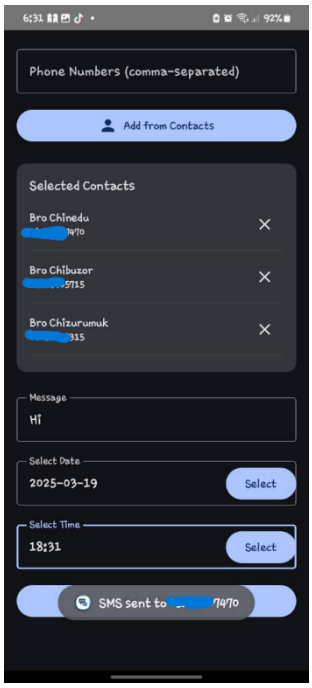


Fig. 4.1.2: The above screenshot is showing already Scheduled SMS

4.2 Discussion

Each of these outputs satisfies one major objective of the system and also an indication of the system effectiveness and efficiency. The scheduling functionality of the system and how it is able to dispatch messages to who they intended to solved the problems that were identified within the old system. Therefore, it is beneficial to every user and the organization that adopts it.

The flexible and easy to use SMS Scheduler allows you to create new text messages and specify when to send them. You can even create recurring text messages to serve as reminders to yourself or friends. Schedule a message to be sent to an individual recipient or to multiple recipients.

Schedule SMS Text messages to be sent any time in the future. The flexible and easy to use SMS Scheduler allows you to create new text messages and specify when to send them. You can even create recurring text messages to serve as reminders to yourself or friends. Schedule a message to be sent to an individual recipient or to multiple recipients. Send to any phone number, or to contacts in the contact list. See History of messages that have been sent.

SMS automation is a feature that allows you to have your messages automatically sent out according to a predefined schedule. All you need to do is write the SMS text, upload the list of recipients, and set the sending date in the SMS scheduler.

With the SMS Scheduler service, you can send personalized SMS, as well as bulk messages. Bulk messages can be scheduled for a particular time and date, and it is also possible to gradually send out your messages over a specified period of time.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

In summary, the major objective why this project was embarked on is to curb the problems associated with events and appointment by staff within an organization. Some of these problems include forgetting events or appointment and when they were supposed to be attended to which might often lead to major problem with staff or client, the cost constraint of hiring a human personal assistant and time constraint in doing the job manually. Looking at all these issues, the project study entails the development of an automated android SMS scheduler with its objective to curb all these issues mentioned above by serving as a medium of scheduling and reminding the users of events and appointments at the same time, capable of dispatching SMS to intended destinations. The Qualitative Research Methodology which includes observation and interview, was used to gather information that leads to the successful achievement of the proposed hypothesis. The software designed methodology used to achieve the proposed objectives of the project is the Structured System Analysis and Design Methodology (SSADM) and these objectives were achieved perfectly as anticipated.

5.2 Conclusion

In conclusion, adopting the system will increase productivity and work force within an organization because it will save more time as well as enable worker focus on other work activities. It will help increase the rate of trust among employee as well as enhance the good relationship between the organization and its client/customers by projecting the good image of the organization.

5.3 Recommendation

It is highly recommended that the new system should be given a proper attention and because if adopted and implemented will change the working ethics of any organization as well as portray the good image of that organization.

As effective as the system in achieving its objectives stated in this study, it is advisable for every user within the organization that adopts the system to always have the application on their mobile devices and put it to good use.

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