Aknaf Website: Interactive Website to Automate the Institution's Work

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ABSTRACT

Technology is occupying a big part of our lives, which could become an essential part. All institutions these days need the use of technology to reach their peak and succeed. yet unfortunately, there is a large percentage of educational centers and consulting institutions that do not have a digital strategy, despite the advantages they could gain from technology. A meeting was held with the administrators of the Aknaf institution to discuss the problems they are facing. This project aims to develop a website for Aknaf institution, which is interesting because Aknaf still performing all their task manually without any help of technology. Current commercially available websites do not cater for all requirements. This paper will help Aknaf institution to make things easier and to achieve its desired goal to reach the largest segment of beneficiaries and save operation costs for the institution. However, such a website can be extended to work in other consultation institutions.

Keywords—Website, Aknaf, QR code, Technology

I. INTRODUCTION

Technology is becoming an essential factor to organizations; we are living in the digital age that no sector can deny the fact it is crucial for their organization success.

Digital technologies affect how a company interacts with consumers and partners, transforming internal processes and creating opportunities for discovering and implementing new techniques for company growth [1].

The goal of Aknaf website is to automate the work for the institution to reach the largest segment of beneficiaries and save operation costs. The system has three different levels of users: the admin, the clerks, and the clients. The admin on the website is the institution manager. The admin can manage users, programs, digital library, and consultation appointment. Also, he/she can view and generate reports and approve payment receipts. The clerk can manage programs, consultation appointments and reply to the clients. Also, he/she can generate QR code for the program's attendance. The clients can view programs and book an appointment for a consultation. Only registered clients can view E-books in the digital library and make the payment. All users can customize the settings of the website such as choosing the website color and modifying profile.

The website focusses on the problem associated with fulfilling institution work and reaching clients. It considers in detail the issues that arise due to the lack of a website that brings together all the operations. Thus, it causes the loss of time and effort of the institution's administrators and the difficulty of communicating with clients.

II. PROBLEM STATEMENT

The aim is to point out the problem to function better. Aknaf has very primitive ways regarding fulfilling their work and reaching clients. They still facing difficulty with documentation, registration, appointment scheduling since regular activities still manually accomplished. However, delivering their voices to the public is one of the main issues that they are facing, they spend many hours recording the client's number and sending a message individually which is a very untechnical way. Moreover, Aknaf needs to analyze their client's attitude and preferences to increase their profit by gaining more audiences, which they need reports to help them make decisions.

Lack of a database prevents Aknaf from reaching their goals and objectives. Creating a database that records the client's information will make the work easier and more efficient. Moreover, having an official website for the institution will make operations much easier, faster, and attract more clients. the goal is to solve the institution's problems and make their operations go faster and smoother.

III. LITERATURE REVIEW

This section defines the similar websites that are used in charities, training centers, and training courses. It discusses the similarities and differences between some of these systems, and the proposed system is described.

A. Saudi Cancer Society Website

Saudi cancer society encourages scientific research to stop and identify the causes of cancer in the Kingdom. The website provides many features that benefit visitors such as activities and events, reports, a questionnaire, an introductory film about the association, premium partners, about the association, assembly Services, detection centers, translated books, Media Center, and a staff portal. The website provides appointment scheduling for earlier cancer detection. First, it requires answering a few questions such as name, national ID. after that the user can schedule an appointment [2].

B. Unit Success Skills Training Center Website

Success Skills Training Center is specialized in the field of human development, training, building, and development of human cadres, with its capabilities, equipment, capabilities, expertise, and trainers capable of providing the highest levels of training, is considered one of the most important houses of expertise in the Arab world. Success Skills Training Center provides many courses to teach people how to be successful, they have a big website that includes all the advanced sections and functions such as, who we are, news, articles, library, training bag, our clients, success partner, courses schedule, reports, and calls us. The user is able to view all the available courses and purchase what he needs which they call training bags. Moreover, the Success Skills Training Center display continuous and brief update about their report which include the numbers of the reports they have, the numbers of images, the number of views, and the number of prints, the user can search for a certain report by filling in the required information [3].

C. Droob Course website

Droob is a national platform that is an infinitive of the Saudi Human Resources Development Fund. Droob website allows users to see what courses are available and register at any one of them. No payment is required since all courses are offered for free. The website has an Ad bar and a FAQ page. Registration on the website is done using the national Saudi ID. The website offers courses in many departments such as IT, languages, finance, health, and others. Contacting Droop is done using either filling out a form or contacting them during working hours on their official number [4].

D. Mnar Website

Mnar is a unified electronic platform that allows the trainee to review training courses in the Kingdom of Saudi Arabia under one roof, as well as enabling him to view all data related to training institutes and trainers [5]. The platform displays the course and important information such as city, time, price, language, and target group. One of the features is that customers' comments on the courses can be viewed and interacted with. It also allows customers to share courses via social networking sites. There is also a help box on the site where customers can leave a message for the organization, whether for inquiries or technical support. When registering with the platform, customers will receive the latest training courses via their e-mail.

E. Udemy Website

Udemy is a platform that offers both paid and free courses, as well as the ability for instructors to create online courses on their preferred topics. Furthermore, it assists organizations of all sizes and types in preparing for the path ahead, wherever it may lead. Courses are available in a wide range of categories, including business and entrepreneurship, academics, arts, health, and fitness, language, IT & Software, and each course has a rating and reviews. When a user registers on Udemy, a dashboard appears that contains all training courses for which the user has registered. The Udemy website saves all purchases made by users and provides a receipt for each purchase [6].

This paper proposes a website to act as a middle link between clients and admins. Table 1 as shown below summarizes the main similarities and dissimilarities between the proposed system and discussed systems including users of the system.

System	System users	Similarity	Dissimilarity
Saudi Cancer Society	Patients, Staff	Both systems provide an appointment scheduling	- There is no dashboard for the users - There is no QR scanning for attendance
Success skills	Trainers, and clients	Both systems generate reports.	- There is no QR scanning for attendance
Droob Course	clients	Both systems allow users to view what programs are available and register at any one of them.	- There is no QR scanning for attendance - The system does not allow viewing customer comments
Mnar Website	Clients	Both view clients' comments.	- There is no digital library - There is no QR scanning for attendance
Udemy	Instructors, and learners	Both offer paid and free programs.	- There is no QR scanning for attendance

Table 1: Summary of similarities and dissimilarities

IV. MOTIVATTION

There are several motivations that have encouraged the team members to develop Aknaf Website:

- The website will be a community service since the team members will develop and deliver the website for free.

- The system will be used in real-time under the name of the team.

- It aims to solve a real-life problem and will help Aknaf enhance its performance because it solves a problem that exists in real life.

V. OBJECTIVES

The objective of the project is to create an official platform for the institution to use. Having a website is essential for Aknaf to reach its goal and a wider range of users. By creating a database and a website hoping to help Aknaf institution work easier, faster, and more efficiently.

- Help Aknaf institution to reach a wide range of beneficiaries.
- Ease the process of registration.
- Ease in report generation.
- Ease in programs and consultations scheduling.
- Ease in taking attendance of programs through QR code.
- Ease of displaying and selling the institution's publications, including books and articles.

VI. METHODOLOGY

The tools used to implement Aknaf Website were chosen based on their compatibility with system requirements. Here are the specific considerations that influence programming language, server, and database selection:

A. PHP Programming Language:

PHP is considered the first server-side language that could be embedded into HTML. It allows website pages to load faster. Also, it may be used on any primary operating system.

B. XAMPP Server:

XAMPP enables a local host or server to test its website by computers or laptops before launching it on the main server. It is a simple, flexible, and lightweight tool that can facilitate website testing and development process [7].

C. MySQL Database:

MySQL controls how quickly things load on a website and how quickly that stored data can be accessed. It has a direct effect on website performance, making it an essential part of web design [8].

VII. IMPLEMNTATION

Aknaf is a website for training and consultation that runs on the iOS and Windows operating systems. This website will help the Aknaf institution to automate manual activities, and it will also help to reach a wide range of beneficiaries. Moreover, it helps the admin to manage the process of booking consultation appointments for the clients, and the clerk to manage the attendance of programs through generating QR codes, the admin can make a better decision for programs, and consultation appointments by generating reports. it helps both admin and clerk in scheduling the program.

Different users of the system have different levels of authority. Fig.1 shows the main three users of the system and their functionality. The following section will specify some features and functions for admin, clerk, and client.
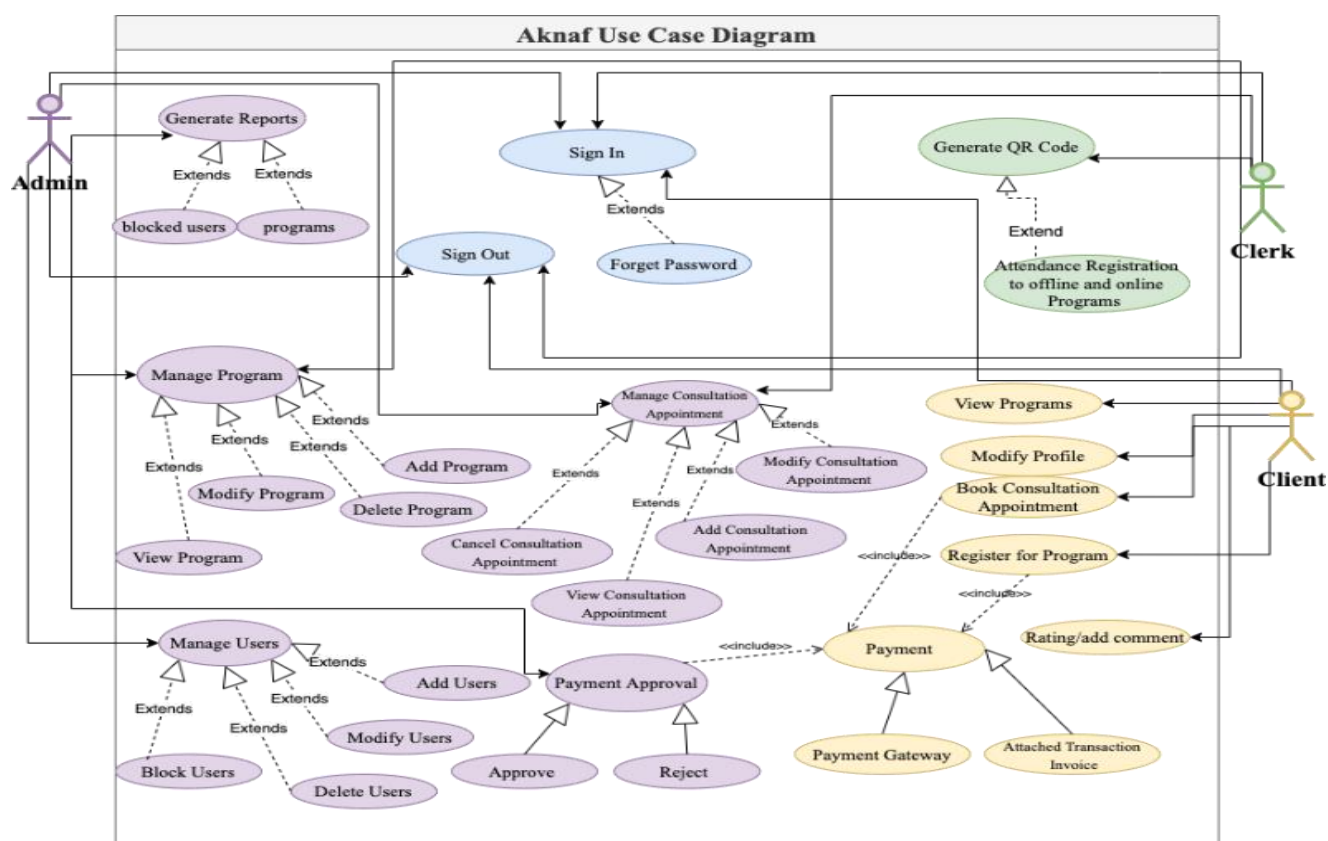
Fig. 1: Aknaf Use Case Diagram

- Schedule program

In the admin interface, the admin will be able to add a program and schedule it by sign-in into the dashboard and then clicking on add program, after that she/he will be able to fill in all the required information about this program.

- Generate QR code

QR Codes will be generated for clients to check-in for the offline and online attending programs. The user who is responsible is the clerk will sign into the account and choose a program then click on generate QR it will be generated by the system. Fig. 2 shows demonstrate the interaction and relationship between the components.

Fig.2: Sequence diagram (generate QR code)

- Digital library

    The clients can view the digital library that contains articles and books and can choose either to view books or articles. Books will be available only when a client is registered on the website, they can also purchase a book.

- Rating/add comments

    The website will provide feature to rate e-books/articles and comments, customer can provide feedback to Aknaf team by leaving a comment or rate e-books/articles. Fig. 3 shows the workflow.
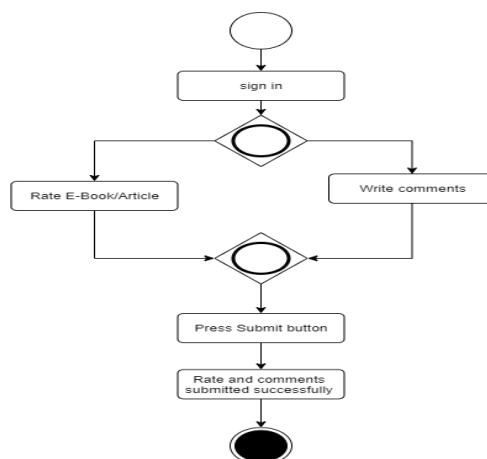

Fig.3: Activity diagram (rating/add comments)

- Generate report

    Generate report interface is for the admin. The system will generate report with information about the programs, consultation appointment, block users. Fig. 4 shows demonstrate the interaction and relationship between the components.
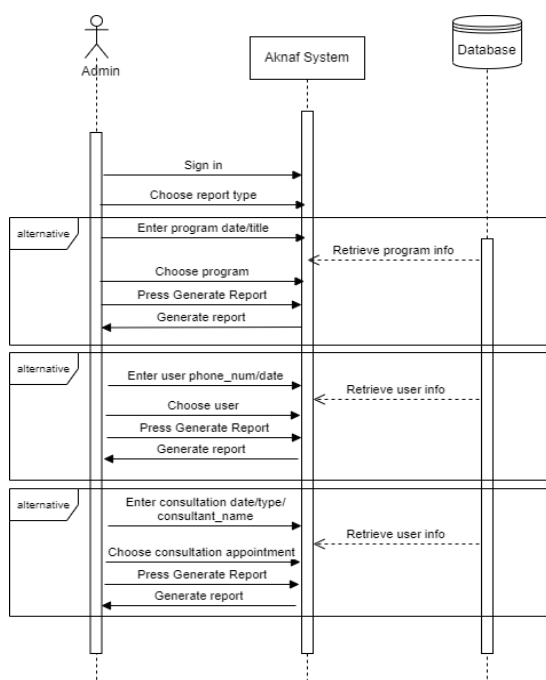

Fig.4: Sequence diagram (generate report)

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- Managing consultation appointment

    In the admin interface, the admin will be able to manage the appointment times and reasons. The admin will receive the suitable time slots for the consultant then the admin will enter the time slots in the appointment sections.

- Payment management system

    The clients must register to the website to be able to enroll in Programs or book consolation appointments. Moreover, they can choose a suitable payment method and then fill in the payment information. Finally, pressing enter to validate the credit card if the card is Rejected the website will display a rejected message to the client if approved the website will display a confirmation message, and the client Program will be automatically added to the client Program list. Fig.5 shows demonstrate the interaction and relationship between the components when the client wants to book an appointment.
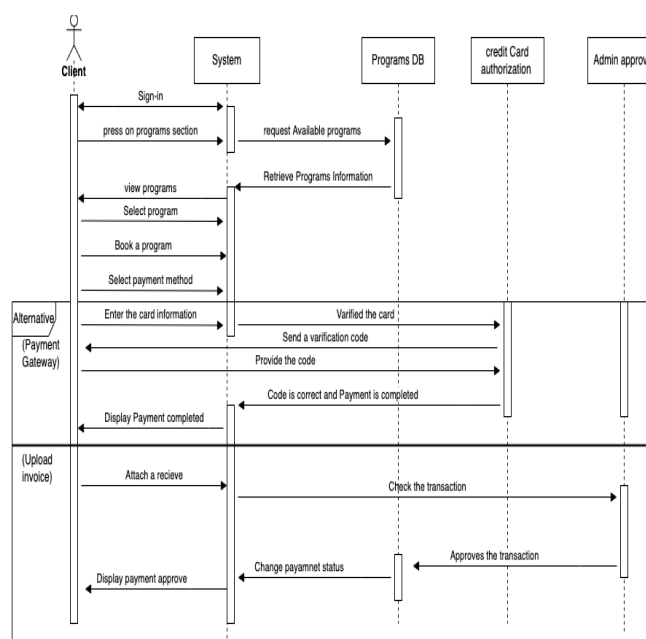

Fig.5: Sequence diagram (payment management system)

- Color change

    Now a days there is awareness of the color-blind issue, so the website will provide the user the ability to change the theme color of the website. The user will click on the settings, then they will have a color picker option. The users can choose a color that is suitable for them. Fig. 6 shows the workflow.
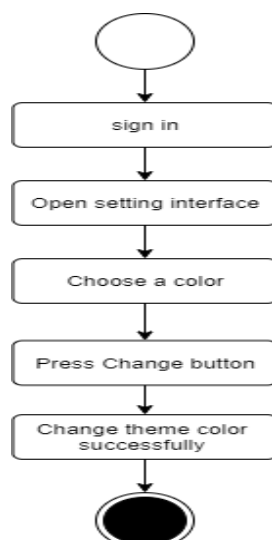
Fig.6: Activity diagram (color change)

VIII. Results

The project began with meeting with the administrators that need an online system to solve problems and reach out to a bigger audience. The aim of the project was to develop a website based on Aknaf institution requests that will allow its clients to schedule appointments and programs online rather than the old manual way and to reach more clients than they currently have. The admin has important functionalities like generating reports and QR codes that will help the company achieve its desired goals faster. The team members successfully planned and managed the project which led to a successful implementation of the system proposal. The team has successfully analyzed all requirements and functionalities of the system and prepared everything needed for the project implementation.

IX. Discussions

In the line with previous studies, after analyzing all websites we had noticed there isn't a website that has the QR scanning functionality which is the main function of Aknaf that enables the client to scan the QR code by their phones and confirms their attendance to the course. All websites found are very well done and easy to use. Some websites have more functionality than others, while some lack many key features such as appointment reminders, report generating, ratings and reviews.

X. Conclusion

This paper represents the work required to construct the Aknaf Website that facilitates communication for the Aknaf institution administrators and their clients. However, it can certainly be applied to other institutions. Therefore, the goal was to employ the available technology to develop websites that serve institutions for their growth and attract more audiences. Clients can use the system to view and book the institution's multiple programs and can also browse the institution's digital library. The system also facilitated the process of booking consultation appointments. On the other hand, this system gives admins to keep track of processes such as payment approval. And the capability to manage users, programs, consultation appointments, and digital library.

The recommended future work is to develop a mobile application to reach out to a wider range of clients. Also, adding features like live chat with the clients to make communication easier.

Acknowledgment

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