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College of Computer and Information Sciences
Computer Science Department

CS290 Software Engineering

System Requirements Document

(Tawasal Organization)

Second semester 1442/2021

Date: 11/3/2021

Section: **372**

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1.Introduction

1.1 Purpose

The aim of this document is to provide a detailed description of "Tawasal Organization's" specifications. It will show the purpose and full declaration for the system's development. It will also explain system's limitations, interface, and interactions. This document is specifically designed to be presented to a customer for acceptance and to serve as a guide for designing the first version.

1.2 Product Scope

The “Tawasal Organization's” is a website which helps people with disabilities based on the user’s current position and other specification like price, timeline, and more. The websites should be flexible to any visitor.

1.3 Intended audience

This document is for developers, testers, and project managers and stakeholders that are working on Tawasal website.

1.4 References

IEEE Software Engineering Standards Committee, “IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications”, October 20, 1998.



1.5 Team responsibilities

Name	Email	Tasks
Manar alqabbani	Mmmalqabbani@sm.imamu.edu.sa	<ul style="list-style-type: none">- Introduction- Software development lifecycle- Scope- System Analysis- Overall Description- External Interface Requirements- System Features
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2. Overall Description

2.1 Product Perspective

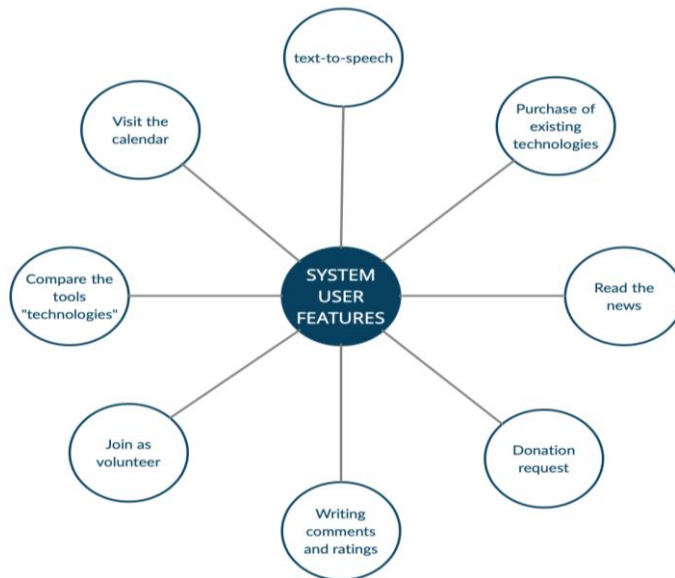


Figure 1 Product diagram

2.2 User Classes Characteristics

There are four types of users that interact with the system: visitor, registered user, system administrator and moderators, each of these two types of users has different use of the website so each of them has their own requirements.

The website registered users can subscribe (news list) to get the latest news, view calendar, purchase of existing technologies and also gets notified by email about any updates to the order, they can compare between the technology tools, they can also send an email to the system administrator, write a comment and do ratings about the website services.

The visitor can only browse the website without registering an account or login, send an email to the system administrator, see the last new and calendar.

The system administrators also only interact with the website, they are managing the overall system so there is no incorrect information within it, the system administrator can manage the information for each user and control the moderator's capabilities

The moderators have specific authority on the website, and they can modify and change the website after giving them permission from the system administrator

2.3 Use Case

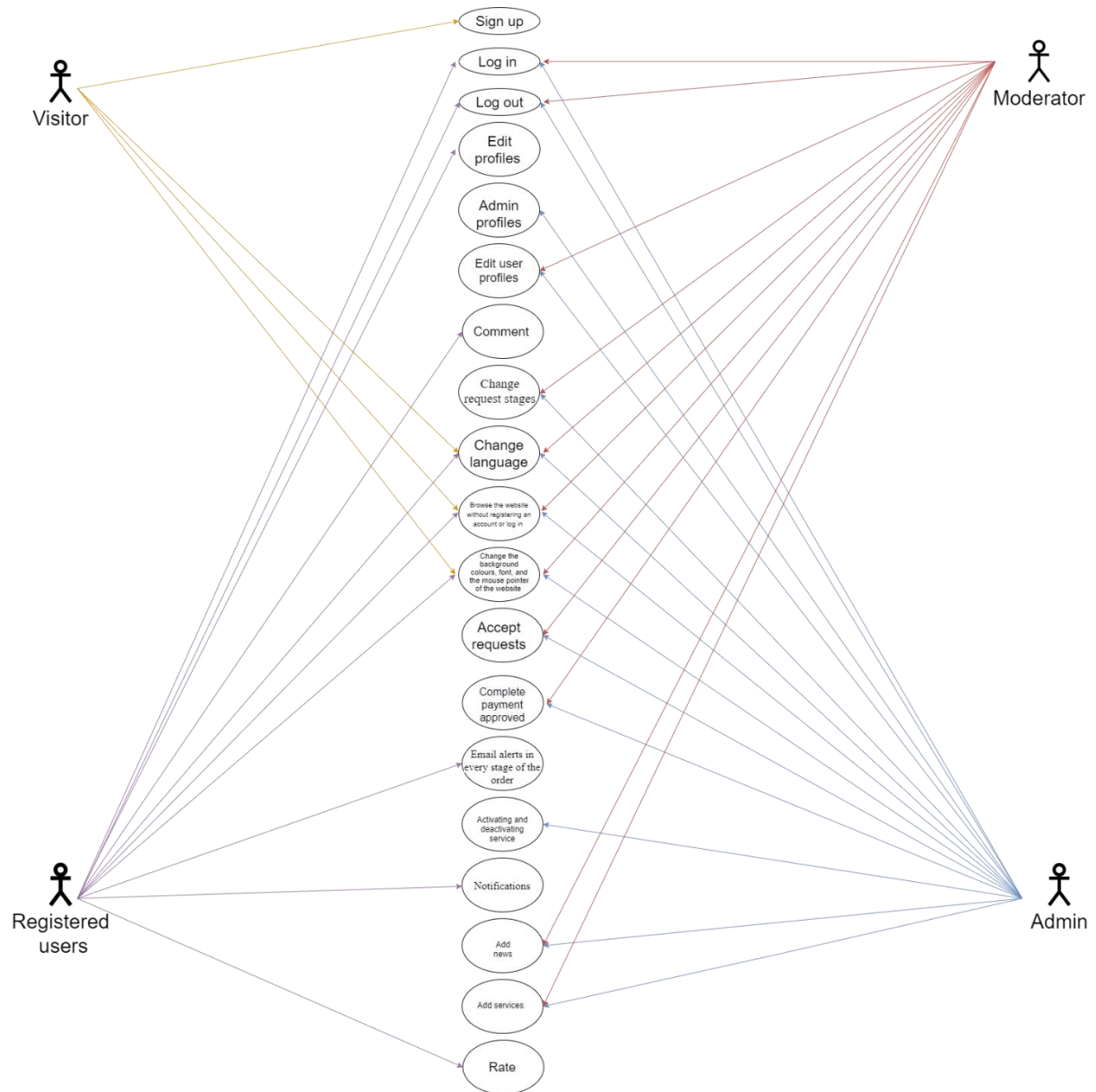


Figure 2 Use Case Diagram



2.4 Operating Environment

The software will run with the following software components and applications:

The software being developed will be running under Drupal works on Apache2 and PHP hosted on UNIX/Linux, OS X, or Windows operating system. The hardware that will be operate on these programs is being developed for this specific project and will follow the specifications that appear in this document. The least set of browsers that must be supported is:

- Apple Safari 7+
- Google Chrome 44+
- Microsoft Internet Explorer 10+
- Mozilla Firefox 40+

2.5 Design and Implementation Constraints

As developer we have a lot of options to develop a website, but the organization impose a constraint on us that we must make a website using Drupal and MySQL database. Most of the problems we encountered is timeline and budget.

2.6 User Documentation

The target audience for user documentation created about the software system is any user of the software system. The use of the software system must be defined in a variety of short document forms (HTML) and/or Portable Document Format (PDF) format “called user manual”.

2.7 Assumptions and Dependencies

The website would only require an access to the internet. One assumption that the user is familiar with an internet browser and also familiar with handling the keyboard and mouse. We also assume that it'll be compatible with different web browsers.

3.Interfaces Requirements

3.1 Hardware Interfaces

Since the website shall run over the internet, all of the hardware used to link to the internet will be the system's hardware interface.

As fore.g. Modem, WAN – LAN, Ethernet Cross-Cable.

3.2 Software Interfaces

The website is constrained by the Drupal, the development team is the desktop version and tablets and mobile devices, the development team is constrained to a limited programming language - PHP language-.

The website shall communicate (SADAD, PayPal, Credit Card) with identify available payment methods, communicates with System administrator for order service, communicates with Rehabilitation centers to provide their services within the site.

The Drupal 7 Database MySQL is a supplier abstraction layer for linking to database servers.

3.3 Communications Interfaces

Since Tawasal is a public website will use HTTP Protocol to communicate over the internet, and we will only need a device to open the server.

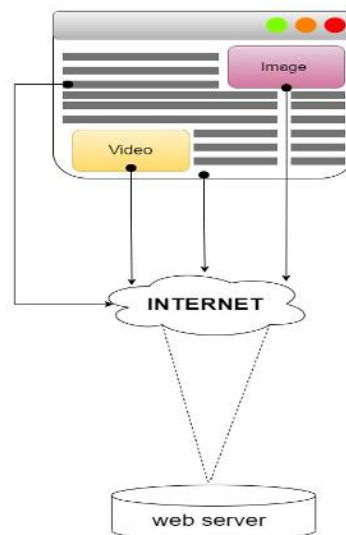


Figure 3 Communications Interfaces Diagram



4. System Features

4.1 User

1. Action

The user will be able to rate the service by choosing the number of stars out of five and a comment by clicking “add review” when the service is finished under the service post.

Requirement:

Must be approved by the system administrator or moderator.

Pre-condition:

User must have already registered.

Post- condition:

registered Users’ rates and comments under each service.

2. Action

The website allows the registered users to modify or delete a submission by clicking into the “edit Submission” before adding by clicking into “submit” or clicking on “save Submission” to save as a draft before the approved by the system administrator and moderator.

Requirement:

Being on requests section.

Pre-condition:

A logged-in user.

Post- condition:

Request stage.

3. Action

Allowing the users to have the option of changing the display language for the website in every page by clicking on “change default language” in the top corner of every page.

Requirement:

Can only choose either Arabic or English.

Pre-condition:

Arabic is the default language.

Post- condition:

Changing the default language of the website to the user.



4.Action

This service automatically sends all the latest news to registered users via their email Periodically without having to ask for news.

Requirements:

The user must subscribe to a service (subscribe to the news list).

Pre-condition:

The user must have an account registered on the site.

Post-condition:

The news will be sent directly.

5.Action

Sort services for users so that sorting increases the speed of their access to the required service through a dedicated search box.

Requirements:

the sort box for the required service.

Pre- condition:

The user must be a visitor or registered on the site.

Post-condition:

View all the required results arranged according to the user's desire, whether according to the latest technologies or by price.

6.Action

Shows a list of a services and each one will link to the details of services that include a description, amount, name and comment.

Requirement:

a service approved by the system administrator.

Pre-condition:

None.

Post- condition:

list of a services.



7.Action

Pre-defined definitions of the users are managed by the system administrator. including the City, request, services, disabilities, and the free market.

Requirement

None.

pre-condition

Only System administrator can access.

post condition

It will be displayed in a drop-down list

8. Action

The Purpose of this feature is to let the user to log-in into the website in order to use the website. The user must open the login page when the user tries to login to the website with his credentials after the System will validate the specified information the user is logged into the website. If the user provides invalid login information, the system will notify the user and redirects him to log-in section.

Requirement

Enters the correct credentials.

Log-in section.

Pre-condition

Must be a registered user.

Post- condition

User logs in to the system successfully.

9.Action

The Purpose of this feature is to let the registered user exit to the system correctly by clicking on the “log-out”.

Requirement

log-out button.

Pre-condition

Must be already logged in.

Post- condition

User logs-out of the website successfully.



10.Action

The administrator's control over users, including the ability to review their requests, respond to their comments, and disable a user's account.

Requirements:

track the user requests and comments and making them available to the administrator.

Pre-Condition:

System administrator.

Post-Condition:

Solve requests, problems, remove abusive comments, disable the offending user.

11.Action

Allow the visitor or registered user to contact the system administrator by email if they have any questions or concerns.

Requirements:

Icon for sending.

Pre-Condition:

visitor or registered user.

Post-Condition:

Deliver the message to the administrator and do what is required.

12.Action

Automatic alerting to users of what's new and updates to their orders by their email.

Requirements:

Using an automated sending method.

Pre-Condition:

Must be a registered user.

Post-Condition:

Get notifications via email.

13.Action

a feature that allows registered user to compare the technical tools available on the website by price.

Requirements:

Two or more technologies to compare.

Pre-Condition:

Must be a registered user.

Post-Condition:

The registered users Choose which one is appropriate.



4.2 System

1. Action

A displayed ad from Google at the end of the home page.

Requirement:

Meeting eligibility requirements of google AdSense.

Pre-condition:

None.

Post- condition:

Running ads on the website's home page.

2.Action

The user must have access to a page on the website to be able to understand each feature of the website and how to use them in Arabic or English.

Requirement:

It must be explained in natural language.

Pre-condition:

None.

Post- condition:

A pdf of the user manual.

3.Action

A page that displays a list of rehabilitation centers with links to a separate page for each one and it include the following information: location, their website, name and the services they offer within website.

Requirement:

System administrator approval.

Pre-condition:

None.

Post- condition:

A list of rehabilitation centers.



4. Action

The system database will calculate and store the correct fee of the services and the website will display each fee of a service for the user correctly when clicking on each service.

Requirement:

The service must be in the database.

Pre-condition:

None.

Post- condition:

Displaying the amount of the service.

5. Action

A page that will display the news as list entered by the system administrators or the moderators that will link to a different page that includes the heading of the news, photos/videos and link to the article. Access to edit the page is given by the system administrators.

Requirement:

Approved article.

Pre-condition:

None.

Post- condition:

A list of the latest updates on the websites.

6. Action

A page that will display for volunteers' applications as a Google form It'll include the name, age, city, email address, phone number and past experiences.

Requirement:

To fill the mandatory information.

An open position for volunteers.

Pre-condition:

None.

Post- condition:

A specific email to contact system administrator or moderator for extra questions.



7.Action

The website will display the follow up of a submitted request on the “personal profile” of the registered user under “requests” it will have 6 stages:

1. New: After creating a new request as a draft and saving it without sending it to the system administrator.
2. Pending for approval: After sending the request, it goes from a draft to the system administrator to process.
3. Waiting for payment: After the system administrator approves the request.
4. Rejected: After the system administrator rejected the request.
5. Paid: After paying the request fee by the user, to appear on the website.
6. Hidden: After hiding a request from appearing on the website through the user who is the applicant or the system administrator.

And after each stage update it will send a notification to the registered user’s email.

Requirement:

A request from a registered user.

Pre-condition:

Logged in user.

Post- condition

Display the current stage name.

8.Action

A user can change the background colors, lines and mouse pointer, it will have a list of set templates to choose from. And can access it by going to their personal profile.

Requirements:

Templates about the color to stand on.

Pre- condition:

None.

Post-condition:

Users can choose from a list of templates.

9.Action

Any service on the website can be accessed by the system administrator, who can also disable or enable it.

Requirements:

None.

Pre-condition:

Access to the system control panel (only system administrator who have access).

Post-condition:

The service is disabled or activated.



10.Action

supporting text-to-speech services to support people the visual impairment and add to each image or caption text icon to express it,

Requirements:

Text to be converted into speech.

Pre-condition:

The user must be a visitor or registered on the website

Post-condition:

the text is converted into speech.

11.Action

Simple design to make the website easy to access with respect for all users such that the services on the website are clearly shown to the user, whether he is a person with disability or a normal person, and the logo colors are depending on the main website.

Requirement:

the design is clear and uncomplicated.

Pre-condition:

None.

Post-condition:

ease for everyone to use.

12.Action

The payment by the registered user will not complete until the application is approved by the system administrator.

Requirement:

The website system administrator must verify the request.

Pre-condition:

Must be registered user.

Post-condition:

None.

13.Action

Creating a special home care blog that helps people with disabilities to provide special services to help them inside their homes and facilitate their lives to make life easier.

Requirements:

Putting all of the home care providers on one page.

Pre- condition:

None.

Post-condition:

display all the services of home care.



14.Action

A free market is a page on the website that collects tools donated by users, the users will communicate with the system administrator to make donation requests (fill the name of the tool and the quality).

Requirement:

the donation request must be check and approve it by system administrator

Pre-condition:

Must be a registered user

Post-condition:

It will display in the free market in the top of the website

15.Action

System administrator has access to all users' accounts and information such as their names, password, city and access to their requests.

Requirement:

User profiles are being gathered.

Pre-condition:

Must be a system administrator.

Post-condition:

A list of the registered users.

16.Action

A calendar containing any information about all workshops and conferences are shown to the user and when they click on one of them, the details of the conference or workshop appear.

Requirements:

None.

Pre-condition:

The user must be a visitor or registered on the website.

Post-condition:

A calendar display workshops and conferences arranged by days, time, date.

17.Action

The system administrator or moderator has the ability to manage content by adding photos, files, and videos to the content of a page.

Requirements:

Acceptable data type.

Pre-condition:

must be a system administrator or moderators

Post- condition:

Add to the page.



18.Action

Linking service for electronic payment of approved application fees by registered users and displaying available payment methods, which are (SADAD, Credit Card, PayPal).

Requirement:

Confirmed request from the system administrator.

Pre-condition:

Must have an order from registered users.

Post-condition:

Ability to pay.

19.Action

making the website compatible with tables by using a design that will fit both tablets and desktops and having the same structure as each other.

Requirements:

None.

Pre-Condition:

None.

Post-Condition:

Only one vision came out.

20.Action

display default home page without registering an account or log in as a visitor to view all website details.

Requirements:

None.

Pre- Condition:

Visitor.

Post-Condition:

Default home page will be available to anyone.

5.Context Diagram

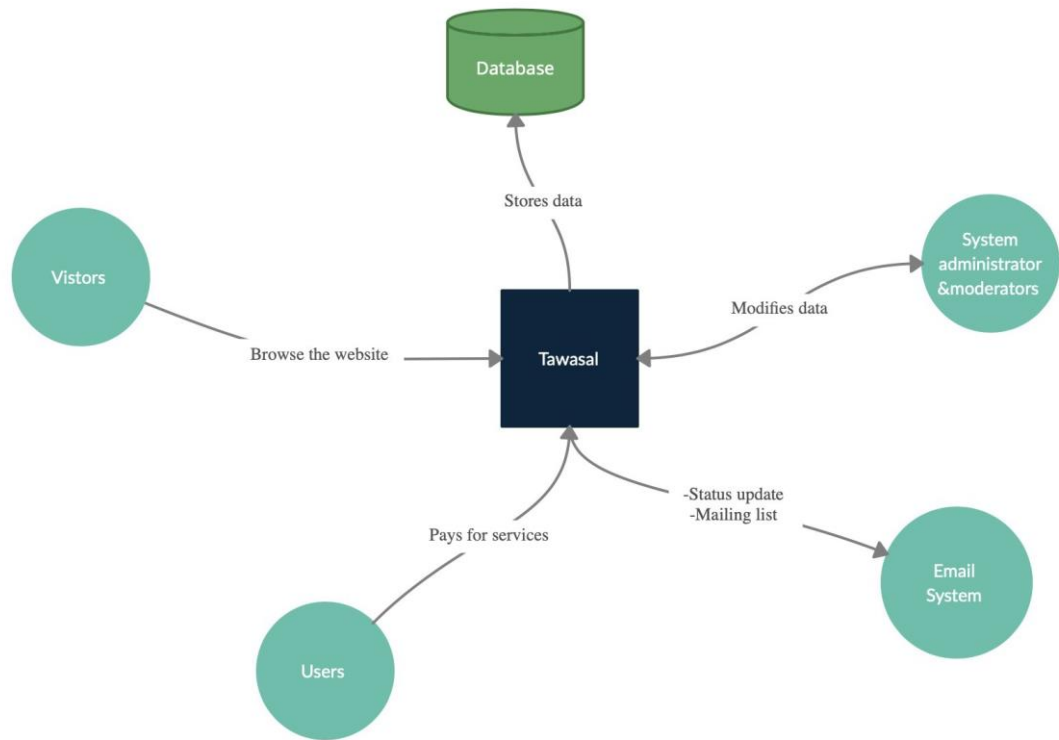


Figure 4 Context Diagram

6. Sequence Diagrams

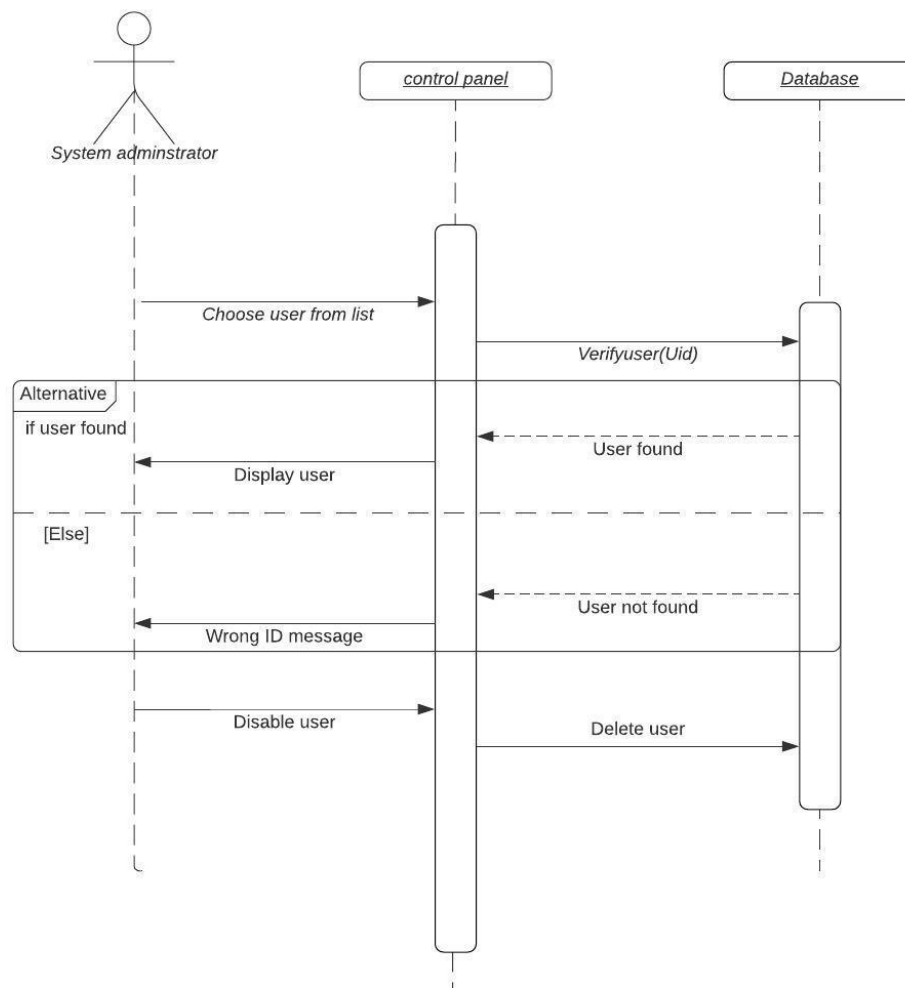


Figure 5 Disable a User.

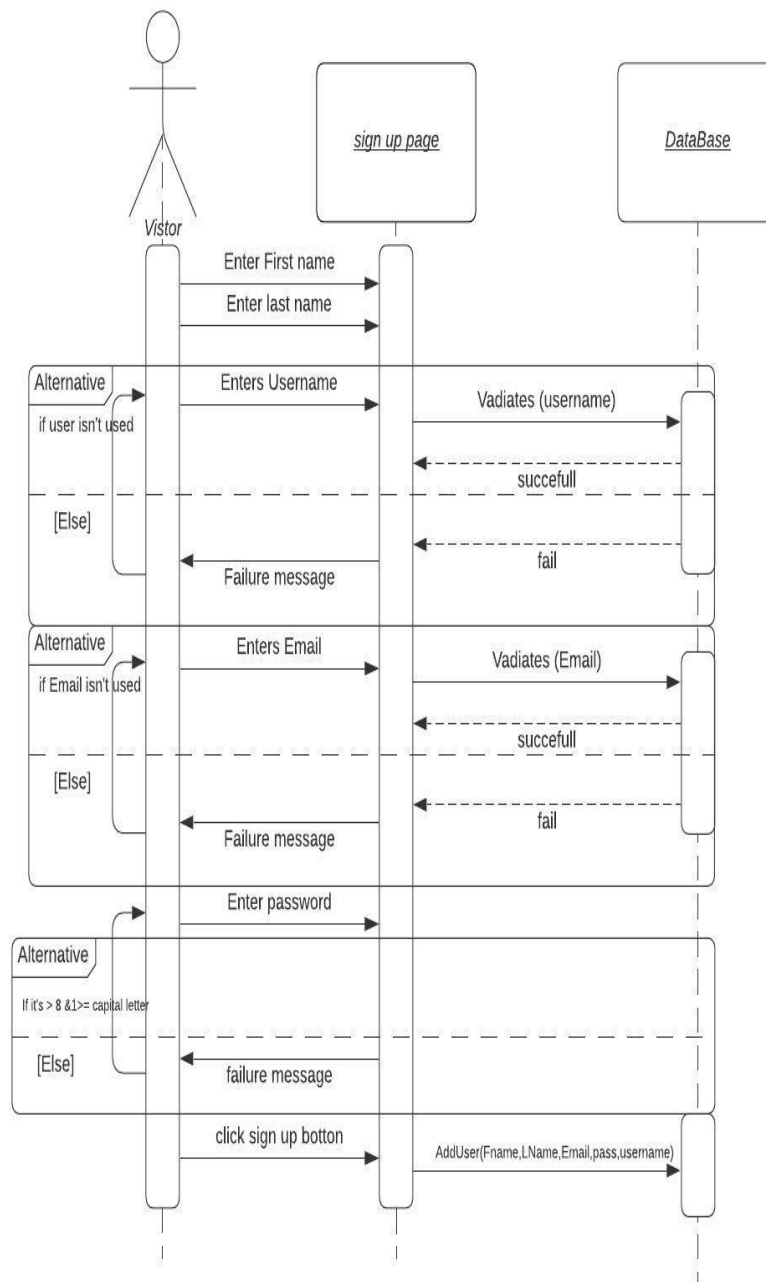


Figure 6 Sign-Up

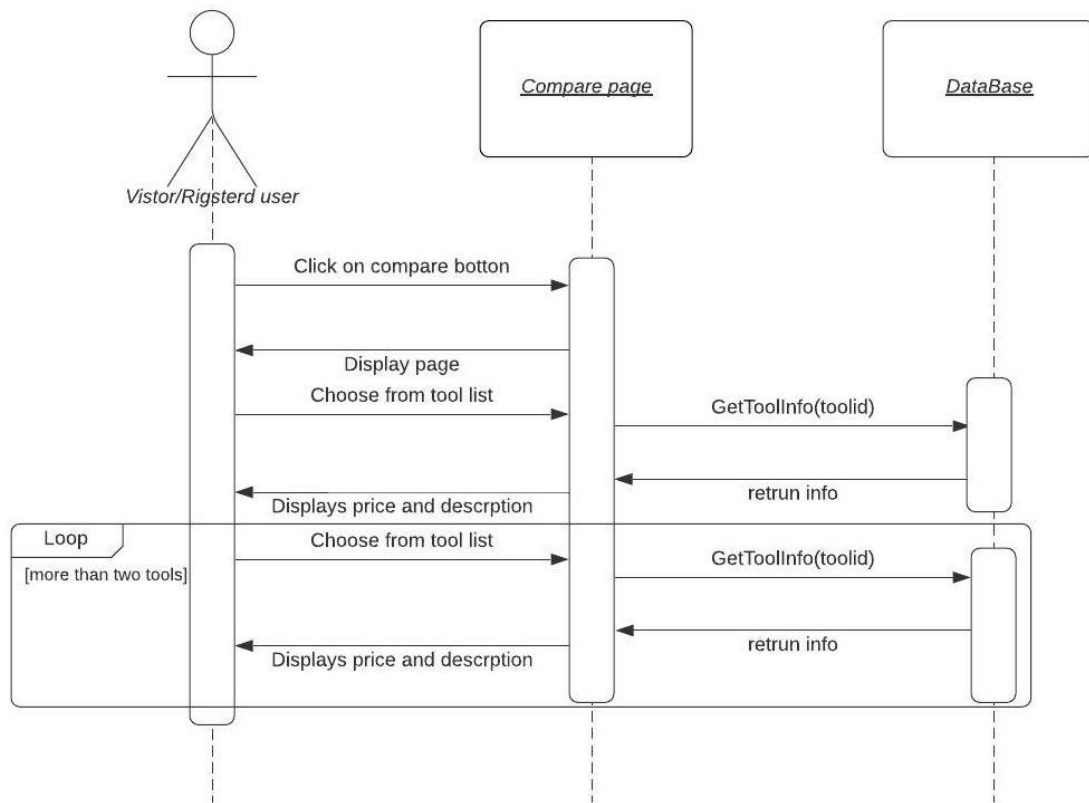
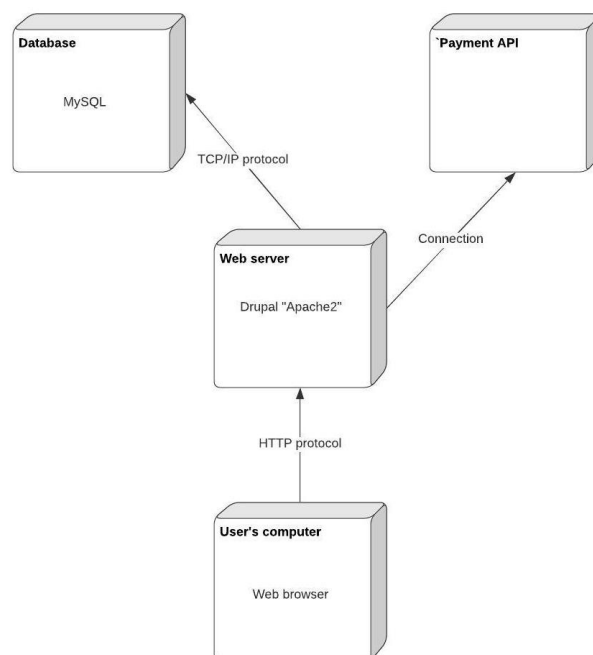
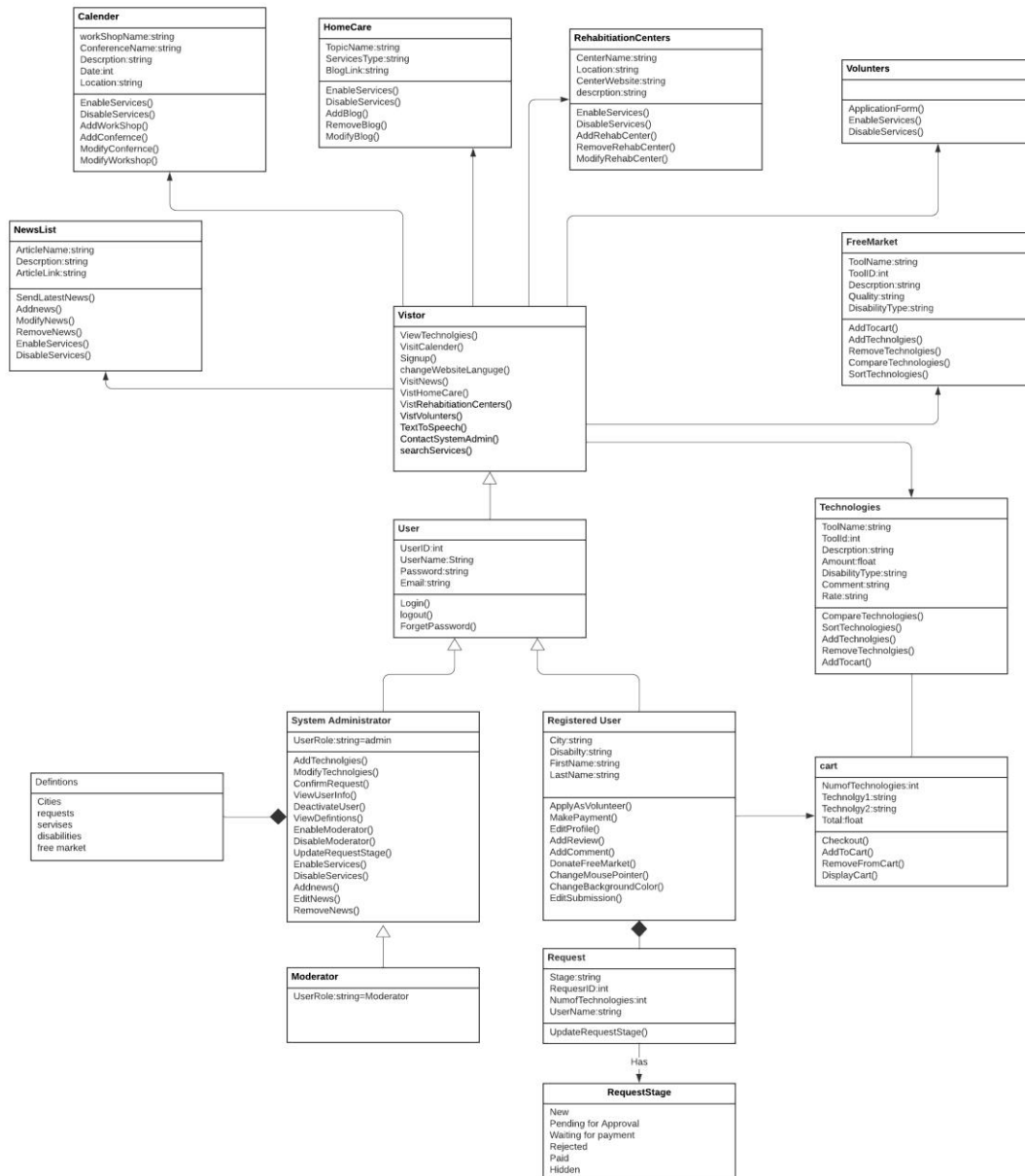


Figure 7 Compare.

7.Deployment Diagram



8. Class Diagram



9. Activity Diagrams

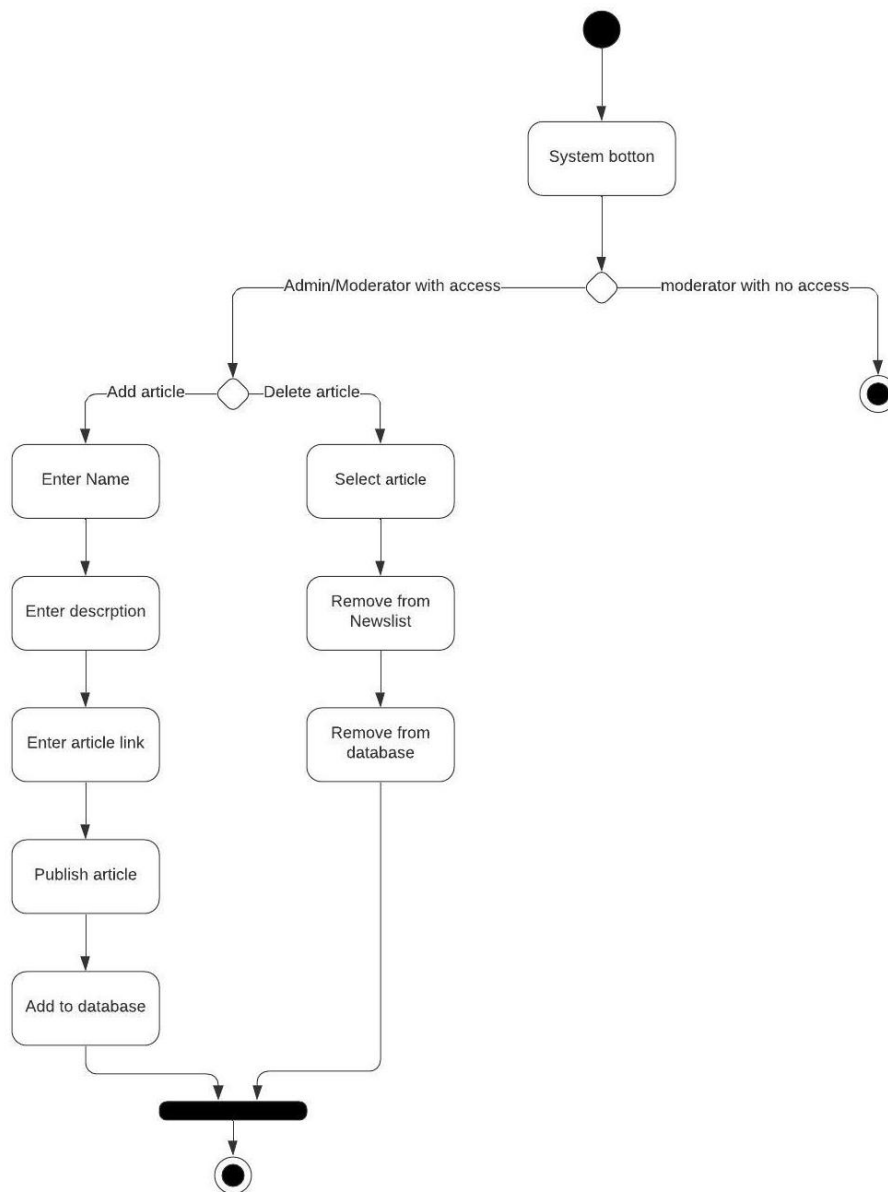


Figure 8 Edit News.

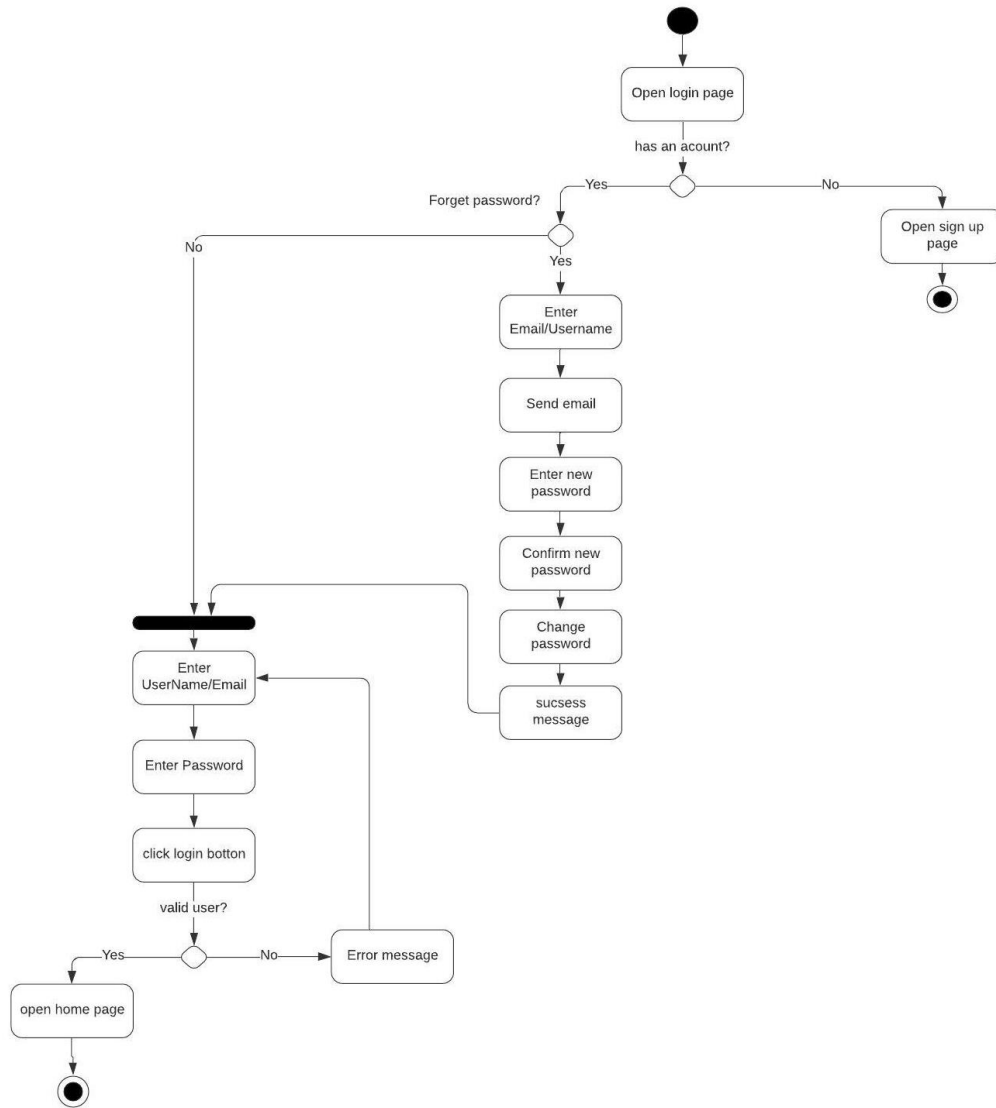


Figure 9 Log-in.

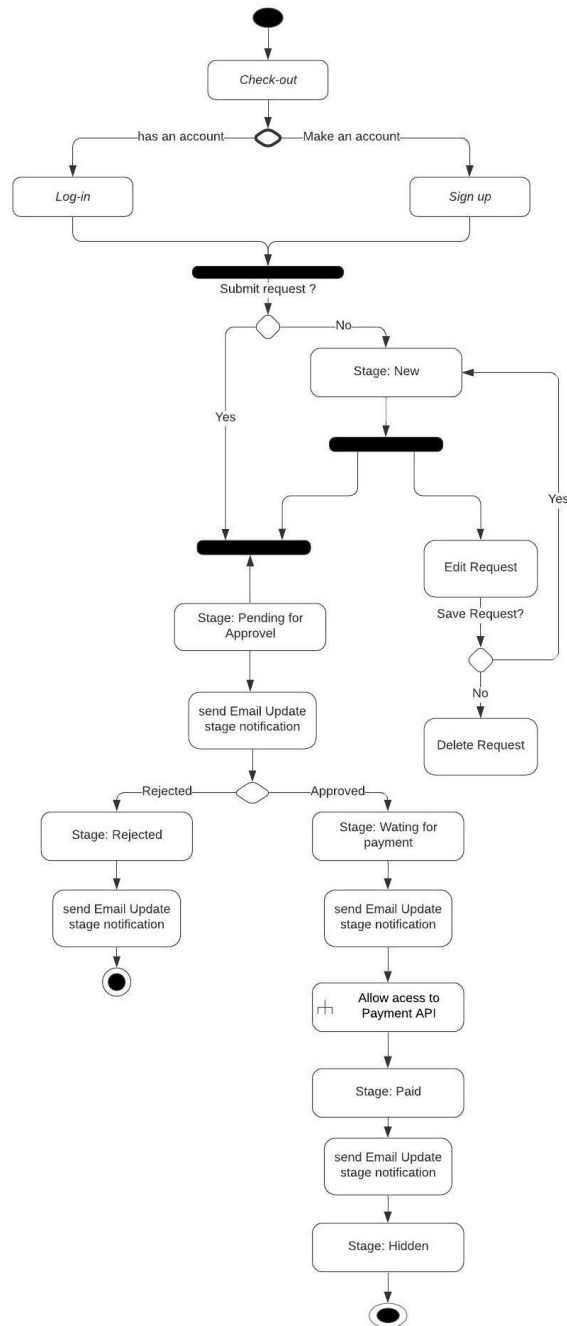


Figure 10 Check out

10.MVC Architecture

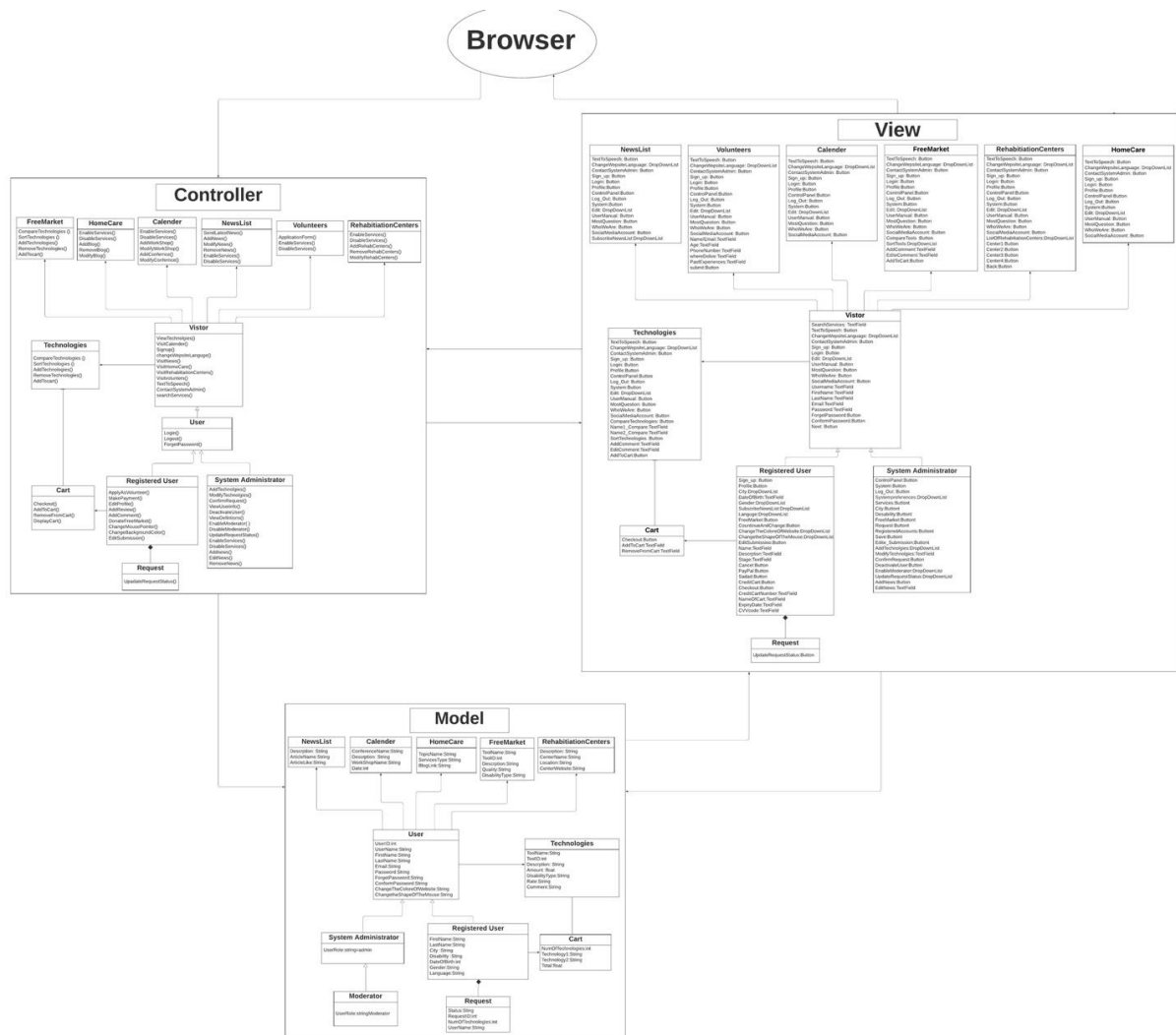


Figure 11 MVC Diagram

MVC structures divide an application's input, processing, and performance. This model's three interconnected components are the model, the view, and the controller. All three of the modules are designed to manage particular facets of web development. The controller receives all application requests and instructs the model to prepare any details needed by the view in MVC application creation. The view brings the final output using the data prepared by the controller, so we choose it because the application's development becomes faster, it's easier for multiple developers to partner and work together, it's easier to update the design, and it's possible to have multiple views”



View

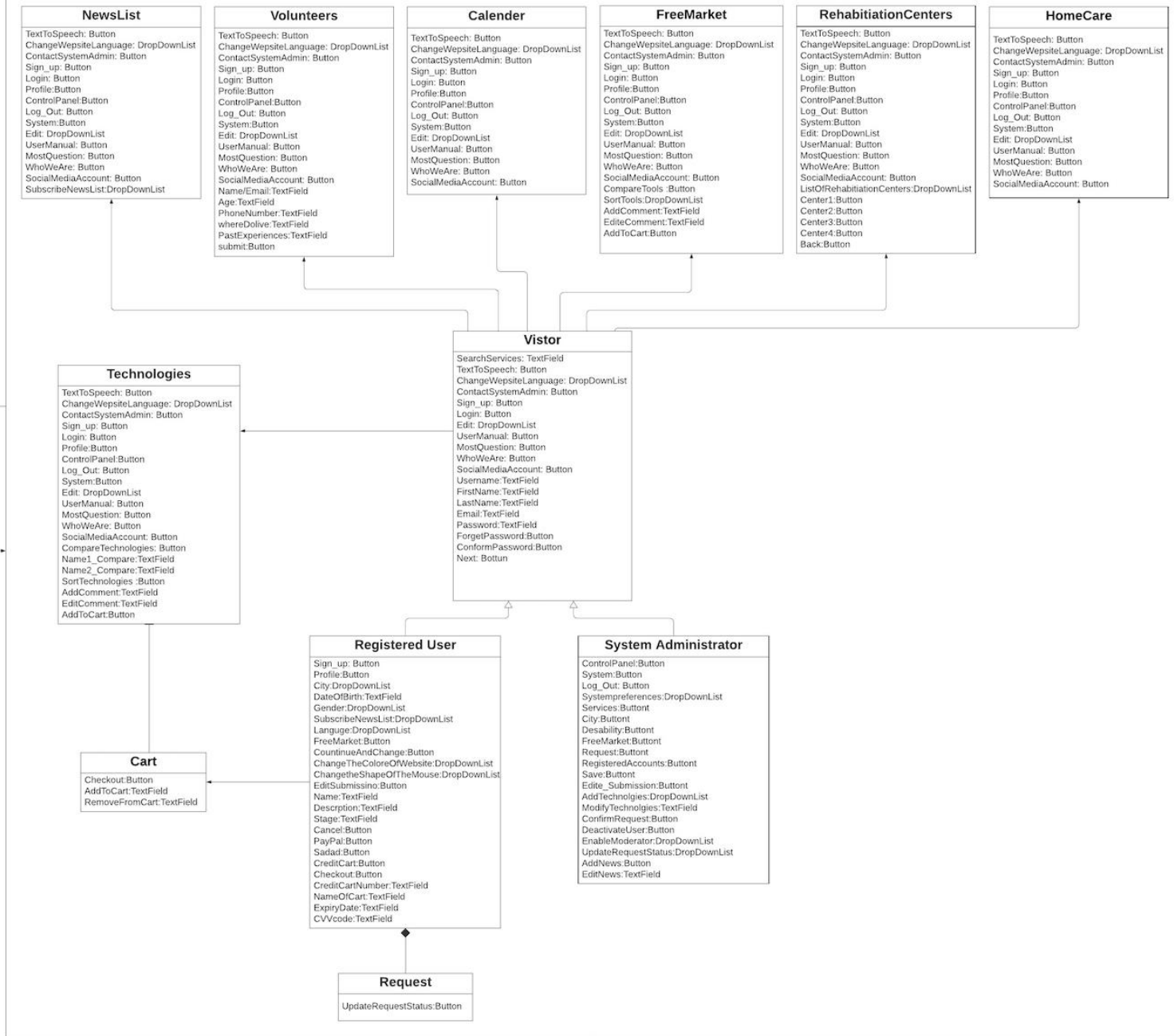


Figure 12 MVC view

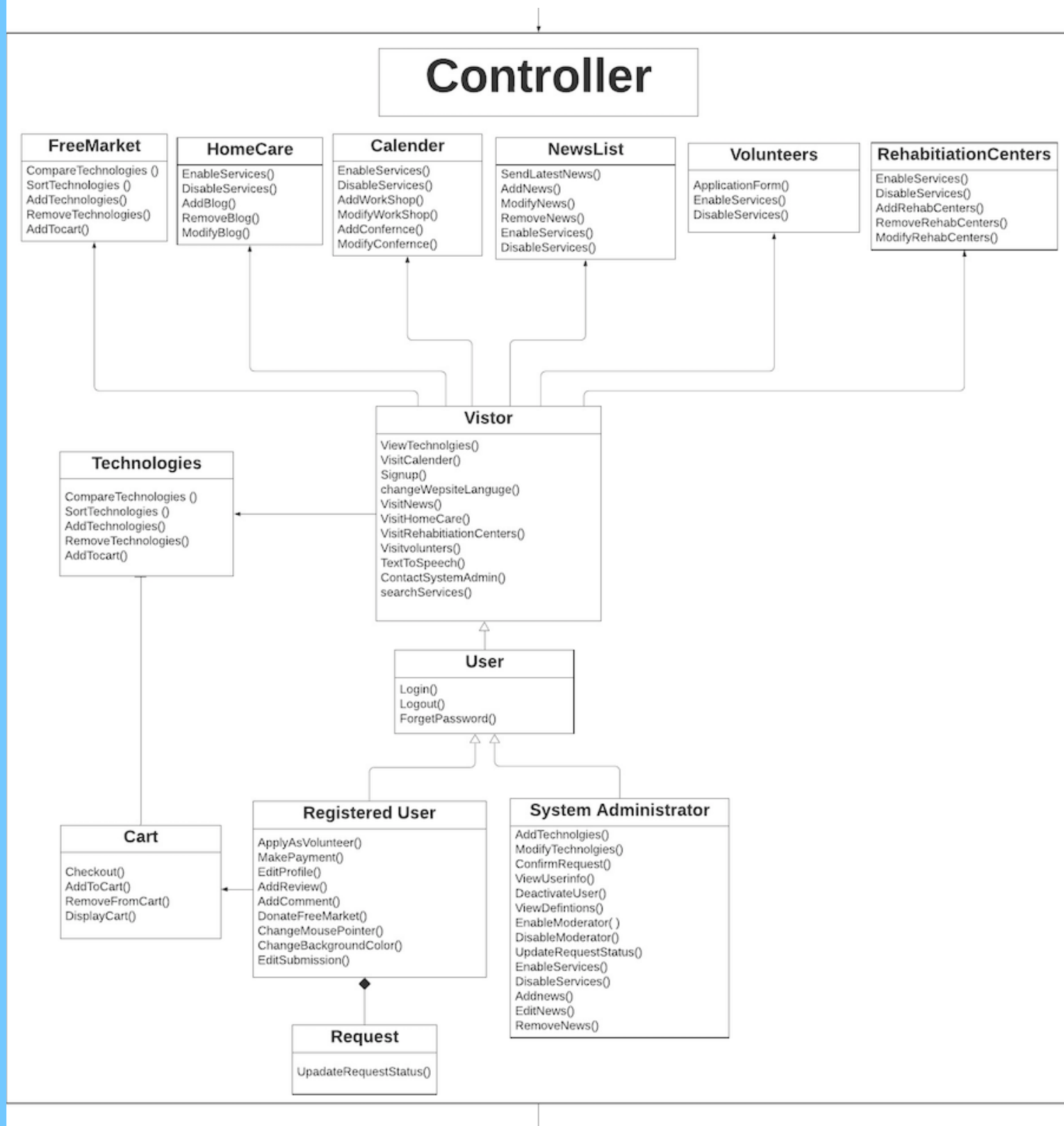


Figure 13 MVC Controller

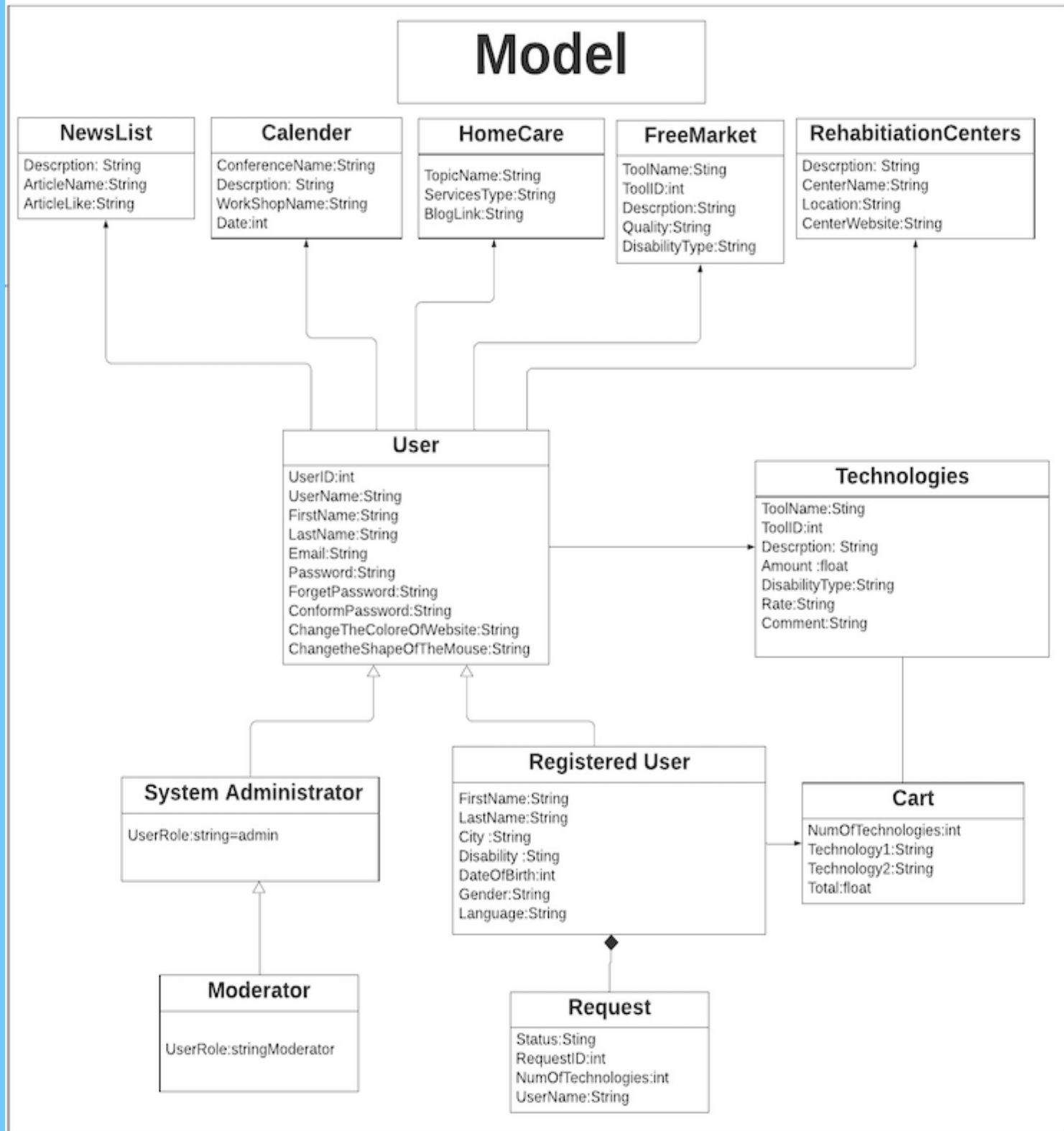


Figure 14 MVC model

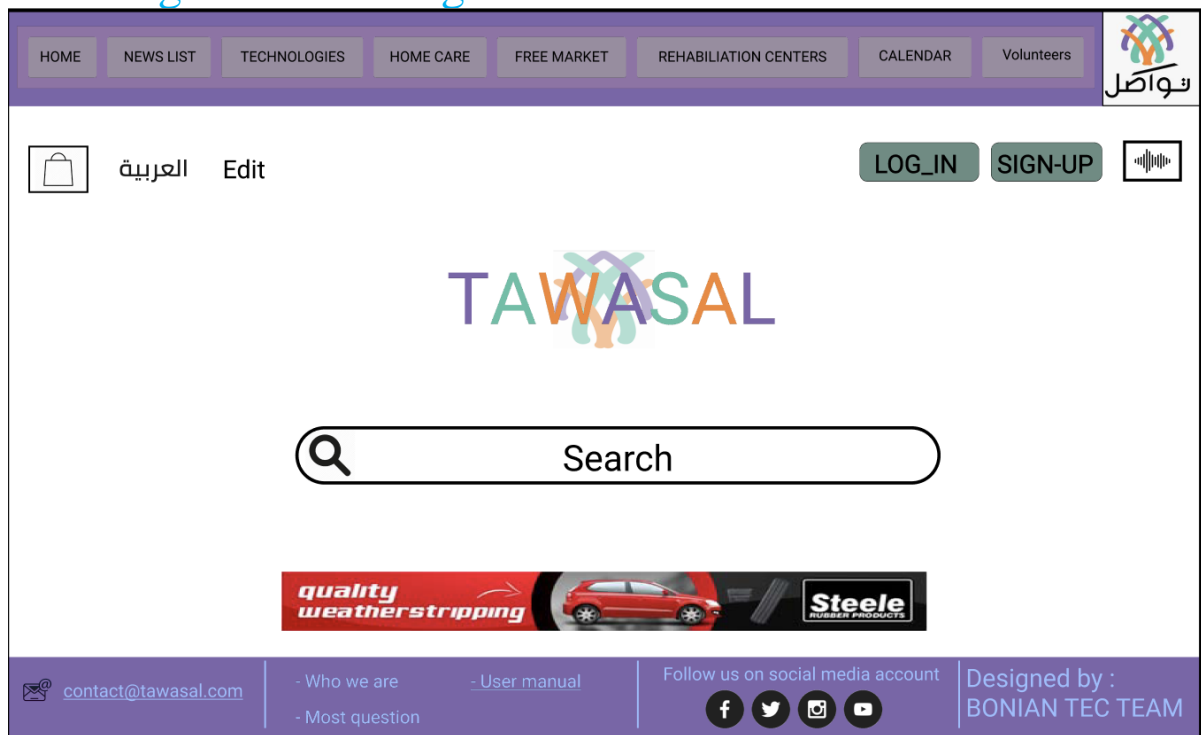


10. Prototype

10.1 Arabic Home page



10.2 English Home Page





10.3 Who we are page

HOME NEWS LIST TECHNOLOGIES HOME CARE FREE MARKET REHABILITATION CENTERS CALENDAR Volunteers

العربية Edit

TAWASAL

LOG_IN SIGN-UP

Who we are

Tawasul Association for Assistive Technologies for People with Disabilities, the first technical association of its kind with its integrated centers to provide excellent services to ensure improvement and development through adopting the Kingdom's Vision 2030 in improving the quality of life and supporting sustainable development by increasing the independence of people with disabilities in the Kingdom of Saudi Arabia

contact@tawasal.com - Who we are - User manual Follow us on social media account Designed by :
- Most question

10.4 Sign-Up Page

HOME NEWS LIST TECHNOLOGIES HOME CARE FREE MARKET REHABILITATION CENTERS CALENDAR Volunteers

العربية Edit

TAWASAL

SIGN-UP

FIRST NAME

LAST NAME

USERNAME

E-MAIL

PASSWORD

NEXT

Already have an account? [log in.](#)

contact@tawasal.com - Who we are - User manual Follow us on social media account Designed by :
- Most question



10.5 Log-in Page

[HOME](#) [NEWS LIST](#) [TECHNOLOGIES](#) [HOME CARE](#) [FREE MARKET](#) [REHABILITATION CENTERS](#) [CALENDAR](#) [Volunteers](#)

تواصل

العربية Edit

LOG-IN

USERNAME / E-MAIL

PASSWORD

[NEXT](#)

[forgot your password?](#)

Don't have an account? [Sign up.](#)

contact@tawasal.com - Who we are - [User manual](#) Follow us on social media account Designed by : BONIAN TEC TEAM

10.6 Technologies Page

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تواصل

العربية Edit

[LOG_IN](#) [SIGN-UP](#)

[SORT](#)

TECHNOLOGIES

Tool 1: Spoon
price : 600.00SAR

Tool 2: Wheelchair
price : 1000.00SAR


Tool 3: Controller
price : 200.00SAR

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10.7 Technologies tool Page

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TECHNOLOGIES



Tool 2: Wheelchair

DESCRIPTION: A wheelchair helps disabled people stand and move around

Amount: 100.00SAR

[Add to cart](#)


[BACK](#)

[Add comment](#)
☆☆☆☆
[Comment](#)

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10.8 Free Market Page

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FREE MARKET


Tool 1: Wheelchair

Quality: Good




Tool2 : bed

Quality: New



Tool 3: Wheelchair

Quality: New



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10.9 Volunteers Page

10.10 News List Page



10.11 Rehabilitation Page

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REHABILITATION CENTERS

LIST OF Rehapilitation Center

1- Center 1	3- Center 3
2-Center 2	4- Center 4

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10.12 Rehabilitation Page

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REHABILITATION CENTERS

Rehapilitation Center

NAME	Center 1
LOCATION	SAUDI ARABIA - RIYADH
WEBSITE	www.center1.com
SERVICES	Physical therapy - treatment of speech defects .

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10.13 Home care Page

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HOME CARE

✓ جهود وزارة الصحة للاهتمام بنوعي الاحتياجات الخاصة:

تعمل وزارة الصحة على تقديم الخدمات الصحية التي تلبي الاحتياجات الخاصة في جميع المجالات للاهتمام في تنمية قدراتهم، والتعامل بشكل طبيعي في مختلف نواحي الحياة العامة، وتخفيف الآثار السلبية للأعاقة، ونقل الدولة حقوق المعوق في خدمات الرعاية

✓ الخدمات المقدمة من وزارة الصحة :

خدمة (موعد): هي خدمة إلكترونية تقدمها وزارة الصحة السعودية لتمكين المستفيد من حجز مواعيد في مراكز الرعاية الصحية الأولية وإدارة هذه المواعيد بتعديلها أو إلغائها، وكذلك


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