

Course : website  
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[www.joordan/index.html](http://www.joordan/index.html)

<https://github.com/mohammad-alqudah/Website-Design-Development->

## Introduction:

In this report, we will discuss the project to develop the website of the Jordanian Ministry of Tourism and Antiquities, Where we will first explain the processes that occur when contacting the server Then we will start with a discussion of the steps for programming the site from the site map to programming the pages by going through all the necessary steps

## DNS:

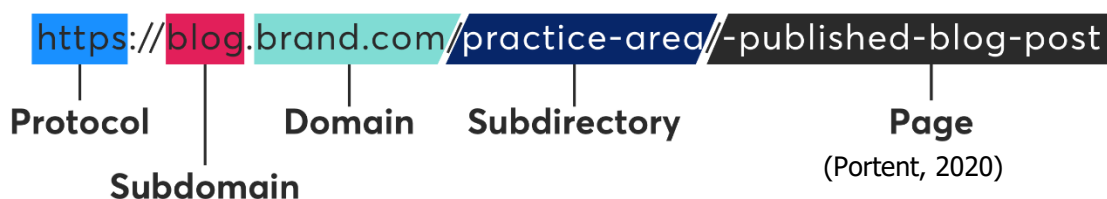
If we think about going to "www.htu.edu.jo" via the browser , This means that We need access to the host which the HTU website is located But the device can't locate the hosting server, So the device connects to a DNS server , To ask him for an IP address Who is linked with "[www.htu.edu.jo](http://www.htu.edu.jo)" , Then the device uses the IP address to access the required server

A "DNS" server is a directory that links the website name and IP address , which it translates the domain to IP address In order for each device to access the hosting server through the IP address that identifies the device location around the world , DNS servers enable us to remove the idea of saving IP addresses and replace them with domain names

## DNS HIERARCHY:

DNS server operates hierarchically, as there is a set of servers hierarchically arranged, each server has a specific function to finally reach the IP address.

Before we start talking about the types of servers, This picture shows the division of the Domains



the domain is divided by the point ".",

DNS Server Types by Level

- 1) Root Level.
  - 2) Top level domains
  - 3) Second level Domains
-

#### 4) Sub-domain

##### 1) Root level:

Here a journey begins with the transfer the domain name to IP address , This server is the highest point in the pyramid, Where it receives the domain from the device and resolves the domain, and searches for a Reliable category such as (.com, .org, .uk) and sends the domain to a Top Level domain

##### 2) Top Level:

Here is the second step of searching for IP , The domain accesses the server based on the last part of the domain. This table shows the most common name for this level

Domain	Purpose
com	Commercial organization
edu	Educational institutions
gov	Governmental institutions
mil	Military groups
net	Network support centers
org	Nonprofit organizations
int	International organizations

Countries are also indicated using the first two letters, such as Jordan .JO

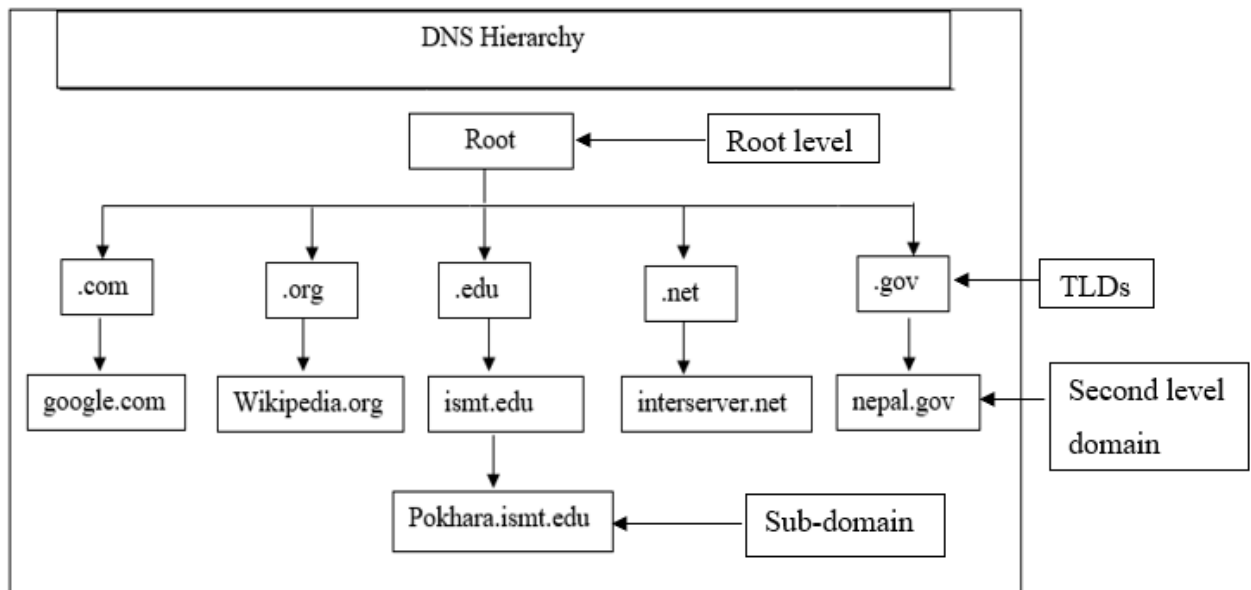
**3) Second level domain :** The next step after Top Level , These are the addresses that people can buy, as htu.jo can be purchased for example from Jordan Telecom Center

##### 4) Sub-domain :

The subdomain is another part of the domain, as it is used from organize to navigate between different site sections

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This figure represents the levels of the domain server



After designing and creating the website, the website is uploaded to a server, This server is a computer that has very high specifications, and it is able to work all year without any shutdown, To allow users to connect without downtime, It is also designed to host a large number of users at one time.

An operating system is also running on the server, in order to be a user interface between applications and the server.

After running the site on the server, users type the URL on the browser, Then the browser requests from DNS server the IP address For the domain that was entered on the browser, After the site IP address arrives, data is requested from the server, By HTTP protocol, That contains all the information about sending and receiving web pages,

## COMMUNICATION PROTOCOLS:

To communicate with different websites and use various services such as email and file transfer, you need to use a set of protocols , Which represents the language of communication between devices to organize the process of sending and receiving data , There are numerous protocols that exist such as IP, HTTP, HTTPS, FTP, SSL and so on.

### **IP:**

When data is sent and received on the Internet, this data is cut, then sent and received as packages, these packets are transmitted between computer networks, these packages need access to specific devices around the world, so IP addresses are attached

### **HTTP/HTTPS**

When the user (the browser) wants to access information on the server and transfer data such as HTML pages, he needs an HTTP protocol: which represents the language of dialogue between the device and the servers on the Internet

HTTPS can also be used to make the connection more secure, because HTTP encrypts data during the connection on the Internet

### **File Transfer Protocol (FTP):**

When the user needs to transfer data via the internet, he needs a protocol for transferring data via the internet, so FTP protocol used for transferring data between the client and the server.

### **SMTP:**

SMTP: SMTP (Simple Mail Transfer Protocol) is the TCP / IP protocol used to send and receive e-mail. Usually used with either POP3 or IMAP protocols, which allows the user to save messages

in the server mailbox and download them regularly from the server. In other words, users typically use a program that uses SMTP to send e-mail, either POP3, or IMAP to receive e-mail.

### **POP3:**

Post Office Protocol (POP) is the internet standard for receiving mail from servers. POP would not really be necessary or useful if all the computers on the internet were online all the time. Mail would just be delivered to the receiver's PC where it could be read upon request. But PC's are not ON regularly so there must be a server holding any incoming messages/mails until the user comes back online. POP defines the interaction between client and the server holding the messages. (Rhoton, 2000)

## **COMMON WEB TECHNOLOGY:**

For designing websites, it is necessary to work on a different set of tools and frameworks, there is no doubt that these tools, including the old and new, and there are advantages and disadvantages for each technology.

We will talk about the types of this technology and its effects on the work environment

### **HTML:**

It is a markup language for building websites. It is the simplest tool for building websites, this language is written based on the tag

HTML stands for Hyper Text Markup Language, It is also a standard language for writing websites, The internet browser can read and interpret this language, Where the browser reads a set of tag to show on pages

Language features:

1. HTML is Easy to Learn and Use
2. HTML is Free
3. HTML is Supported by all Browsers
4. HTML is the Friendliest Search Engine
5. HTML is Simple to Edit

(EDUCBA, 2020)

### **CSS:**

It is a standard language that defines the appearance of pages written in HTML, such as changing colors, the appearance of the font, the distance between components, and a lot of things.

Language features:

1. Global web standards
2. Easy maintenance
3. The possibility of using the same code more than once

### **JavaScript:**

It is an object oriented programming language that allows the creation of interactive and dynamic web pages for user, This language is processed on the user's device

Language features:

1. Speed
2. Simplicity
3. It reduces the load on the server because it is Client side

### **PHP:**

It is a general programming language, it is usually used to develop websites, this language works on the server, often it is used to send and receive data from databases on the server

Language features:

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1. Open source:
2. Speed
3. Powerful library support:
4. Stable

Impact of common web technologies and framework:

## SEARCH ENGINE:

When completing programming the website, the first goal is to show this website to the largest number of people , That is why website owners go to search for ways and techniques to bring people to their website , One of the most common ways of getting people to the site is through search engines Where and according to statistics the daily searches on Google are equivalent to 3.5 billion Also, the market size for searches that are done on Google is 90%. (Smart Insights, 2020) , So people go to make their sites visible on google In order for this site to appear in searches

When adding a site to searches, we will face the problem of having hundreds of similar sites , And the site will not appear in the first pages of the search , Because the sites on the front pages have followed the search algorithm developed by the search engine

So if we decide to put the site at the beginning, we need to follow these algorithms to show our site on the first pages , ( Much of these algorithms cannot be deceived)

We will take A small part of Google Algorithm because it represents 90% searches

Google uses 200 algorithms to classify sites:

1. Keyword Appears in Top Level Domain
2. Keyword As First Word in Domain
3. Number of Outbound Links on Page
4. Repeat Traffic
5. Big Brand Preference
6. Popups or “Distracting Ads”
7. Page Age

(Backlinko, 2020)

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## FRONT-END WEBSITE TECHNOLOGY:

It is the visible part of the page for the user, which represents texts, images, ...etc. ,The front end are designed in common languages (HTML, CSS ...). There are many tools that facilitate page design, such as bootstrap, adobe XD ... etc

## BACK-END WEBSITE TECHNOLOGY:

backend is the invisible part of the user , When browsing an article on a news site , The page shape, text size, and color are made by frontend , While the content of the article is presented by Backend , The backend is implemented using programming languages like php, python , backend is usually used to retrieve and send data from databases ,

## RELATIONSHIP BETWEEN FRONT-END AND BACK-END WEBSITE TECHNOLOGIES:

If we want to design big websites that receive requests from customers or change their contents constantly, such as weather sites, then we definitely need the backend , Through backend, we can retrieve data from database and display it in frontend, receive requests from users and store data in databases, Most sites cannot leave a backend

For example, on airline websites, when someone thinks to book a flight ticket online, It initially browses flights on the site (all data and graphics that appear on the site are frontend) The content inside it is created through a backend as it fetches data through from other sites using the API or brings data from the databases, and when booking In flight, backend fetches data that the user has written on the frontend and stores it in the databases\

So we can say that frontend, backend is an integrative process It is not possible to leave one of them

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## ONLINE WEBSITE CREATION TOOLS:

Several methods and tools have appeared recently , Such as WordPress and Wix , That allows creating and designing a web page without writing coding , By drag and drop , Where anyone is able to learn to create websites in less than a day !!! and You can also create a beautifully designed website in a very short period , They are very excellent tools for simple design , But if the website is complicated, these tools do not support complex website

### **Advantages of online website creation tools:**

- 1) No coding knowledge required to create a website
- 2) Easy to create a website with drag and drop features.
- 3) Quick adjustment of the pages
- 4) Creating pages has become less expensive
- 5) There are ready designs

### **Disadvantages of online website creation tools:**

- 1) Limited features and capabilities
- 2) Faced with some faults, because it is from non-global companies

It does not often meet the needs of users

### **Custom Built Sites:**

Are the sites that are built from scratch, Usually, these sites are built by people who need unique and complicated services Where they can not build it in tools such as WordPress , Usually, these costs take high costs, in addition to a long implementation time, It also requires a high knowledge of coding

### **Advantages of custom-built sites:**

- 1) It allows the user to build any simple or complex designs
-

- 2) Do not specify to the user limit tools and shapes
- 3) They can be used for large projects.

**Disadvantages of custom-built sites:**

- 1) Many errors can be found
- 2) they need a long time to build.
- 3) they need relatively high budgets

**There are also some measures between these two types**

**Flexibility:**

When building a site from scratch, the user is able to control the design of the page, and modify or remove anything he thinks of ,

But sites that create pages, have limited tools and options, through which the user cannot control the small details of the page

**Performance:**

When the site is built by the user, the user is constantly developing the site and addresses defects and problems, while companies that provide page tools remove support from old versions, which could expose them to attack by hackers.

**Functionality:**

The functionality is always limited to page creation sites , And it is not possible to create large projects because many things that can be written in code cannot be created through these sites

**User Experience and User Interface (UX & UI):**

Companies usually create sites according to the nature of the work and the nature of the user , Usually, after creating sites, the user requests some modifications based on the nature of the

work , Part of many of these changes cannot be completed on sites such as WordPress , This will reduce user satisfaction with the site

Therefore, building sites is determined from scratch or the use of auxiliary tools depending on,

- budget
- The simplicity or complexity of the site
- The level of security the site needs
- Flexibility
- Functionality
- Performance

## DESIGN DOCUMENT:

A document that defines the general design of the site User requirements, general frameworks, standards, principles and guidelines on which the site will be built on it

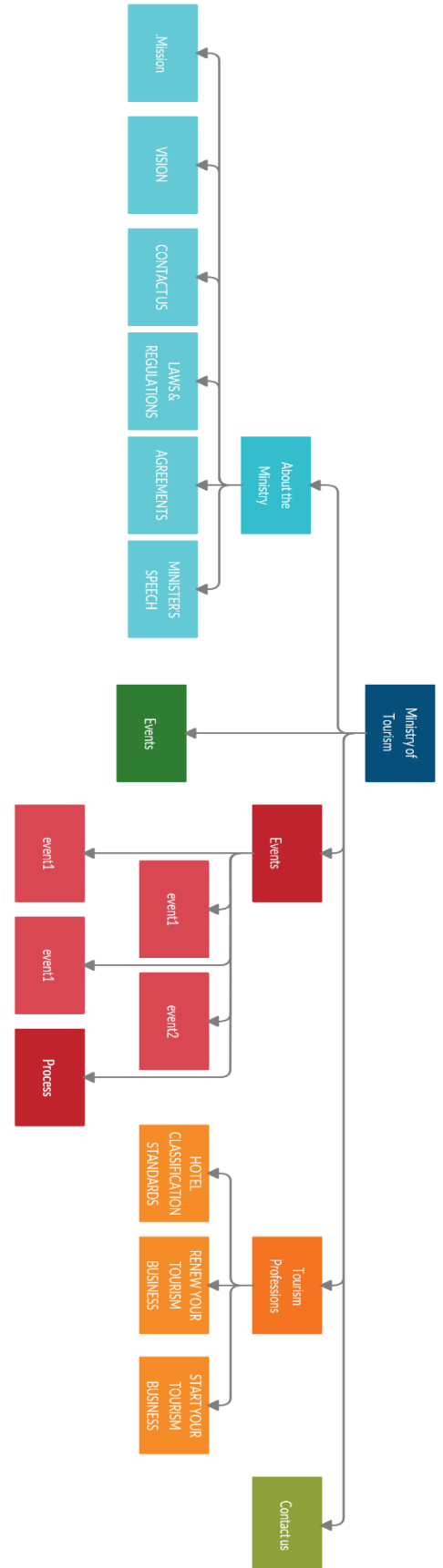
### **Client and User Requirements:**

The requirements for this project is to build a website similar to the Tourism website and offer part of its services

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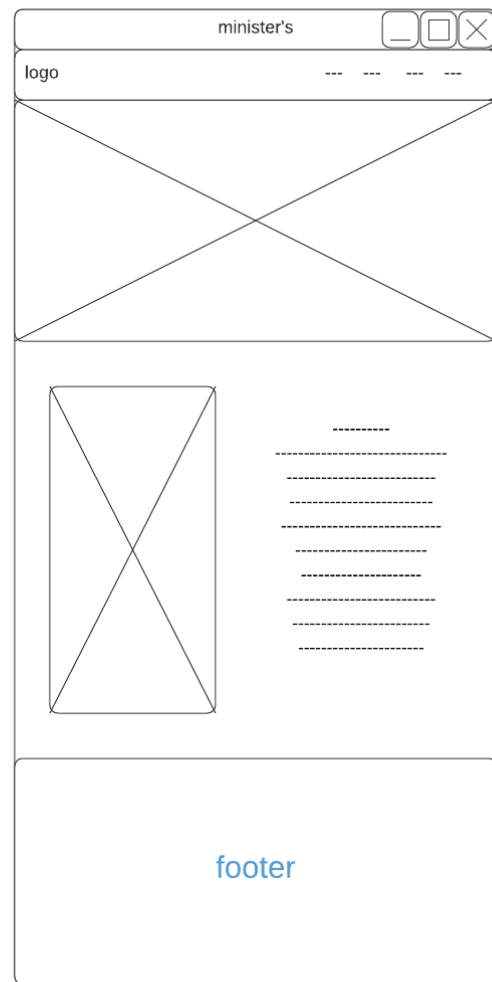
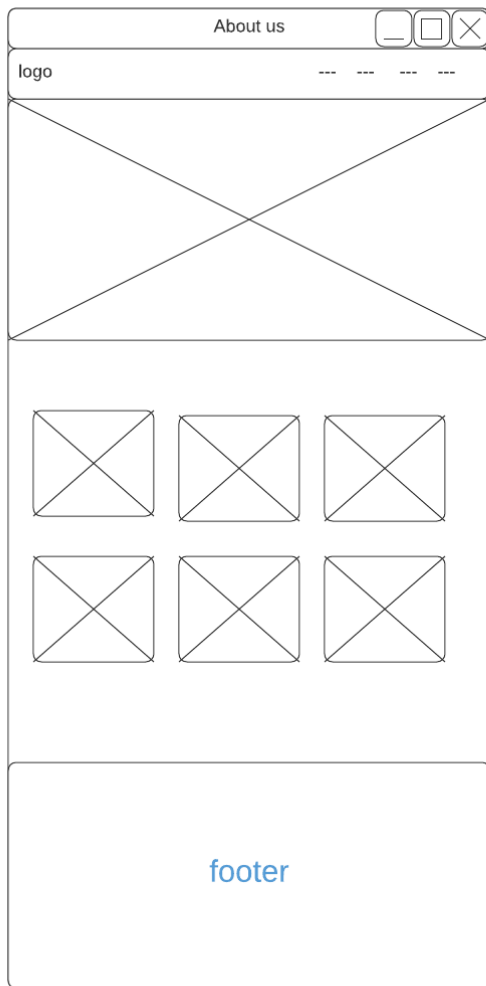
## SITE MAP:

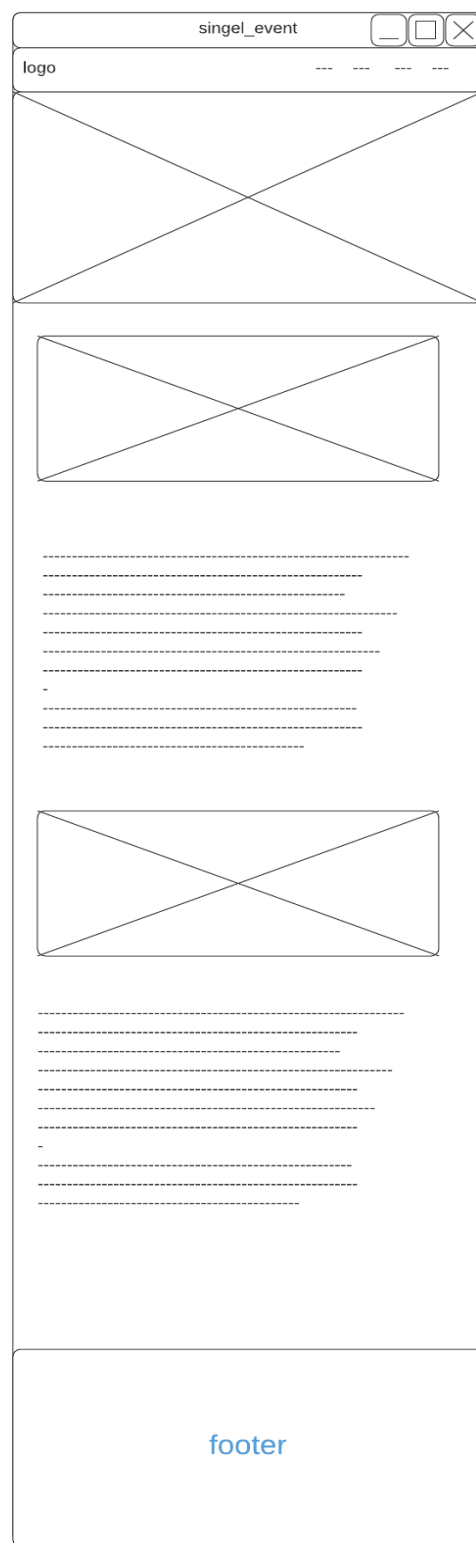
At this stage, we draw a map that shows the names of the pages, and from where we can get to each page



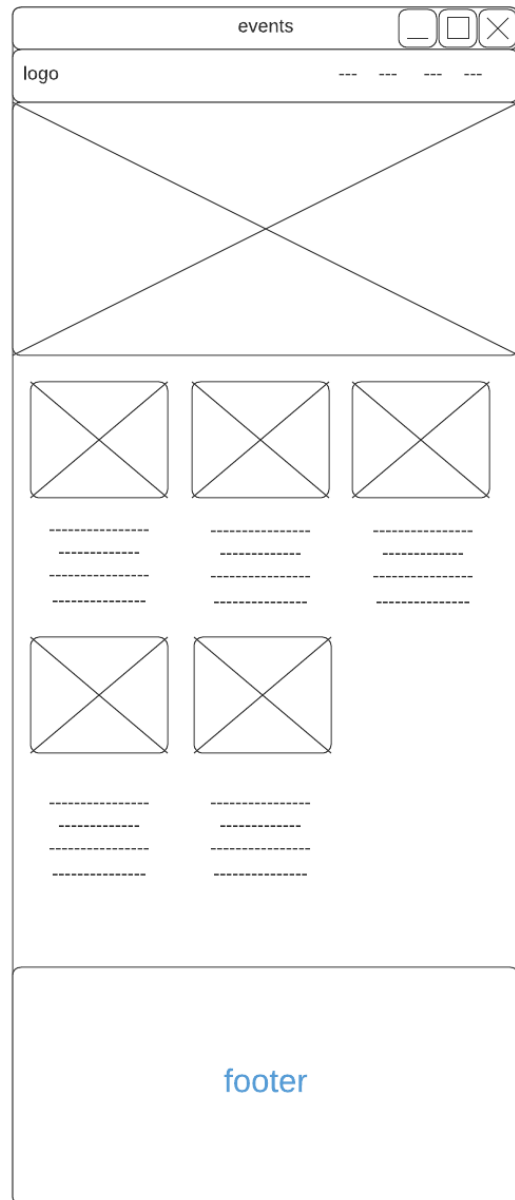
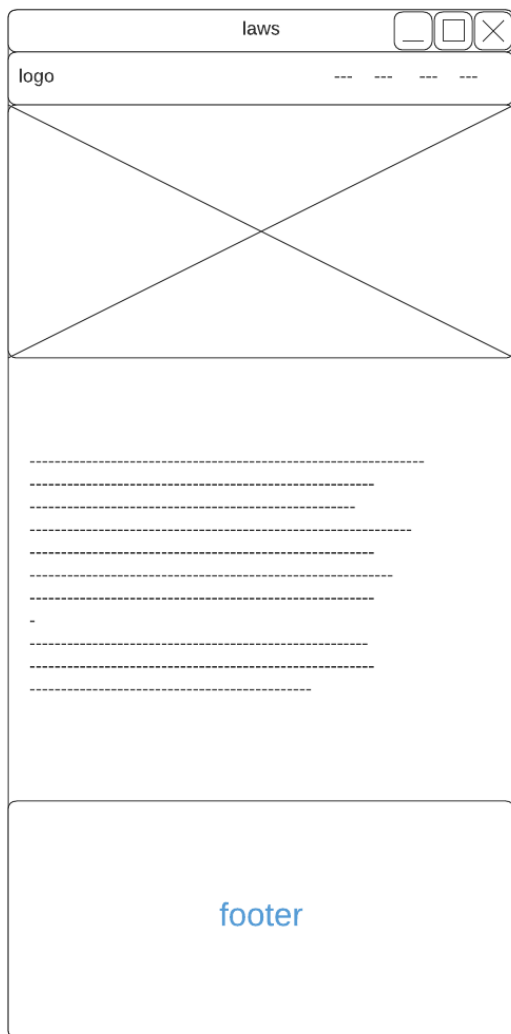
## WIREFRAME DESIGNS:

Through this step, we define the general forms of the pages, divide the page in general and the location of the elements such as images and texts, this design is created to study the user experience, and amend directly to any element without losing time because the amendment is not expensive here





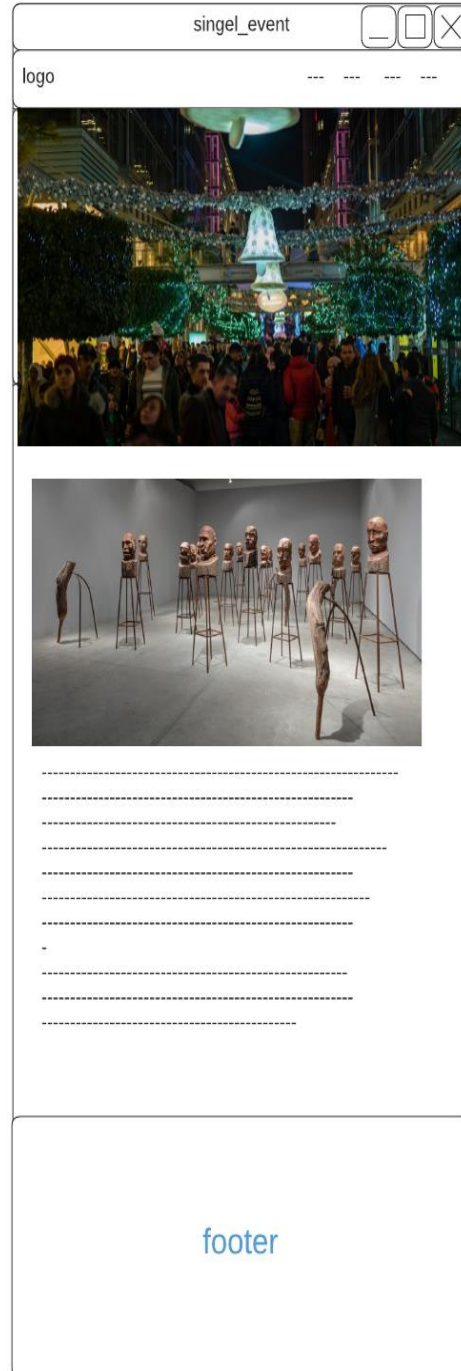


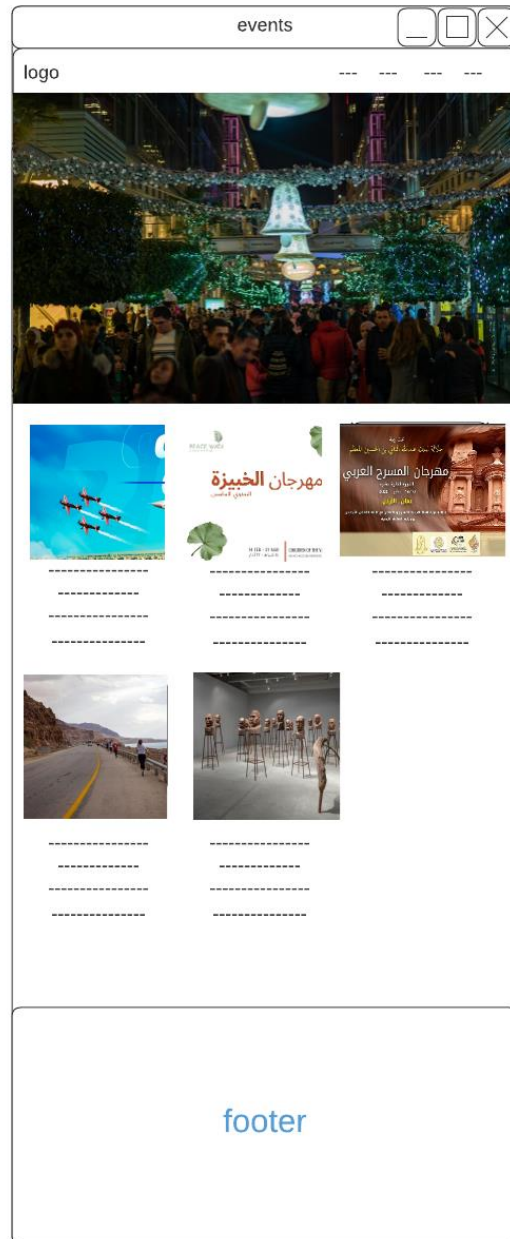


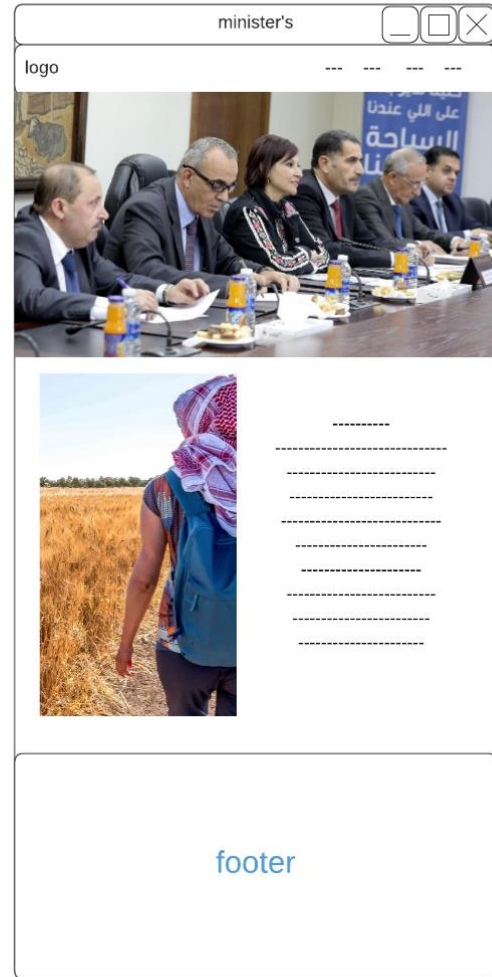
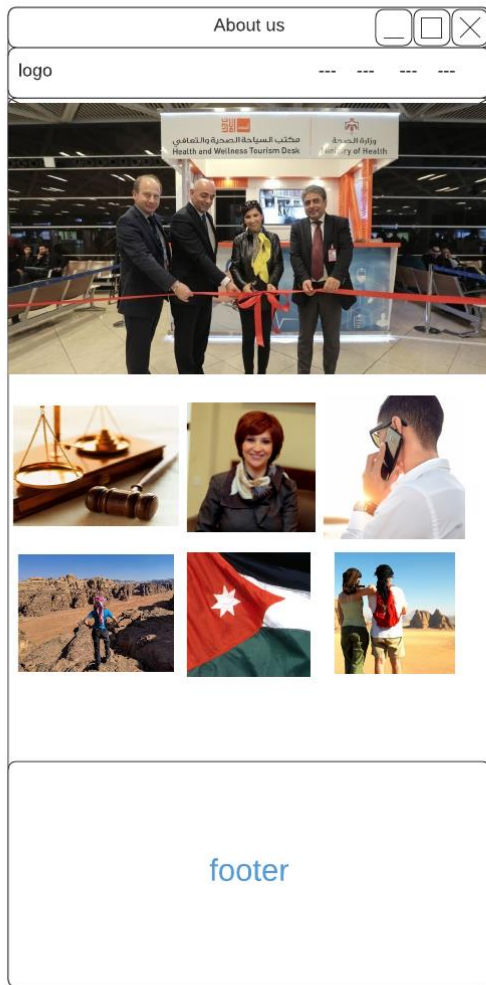


## MOCK-UP'S:

At this stage, more details are displayed, as the page-like forms of pages that will be executed begin




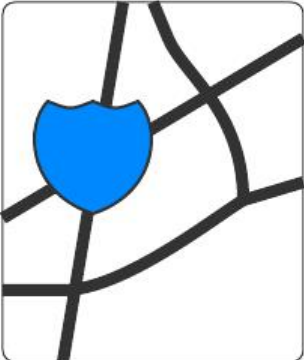




laws

logo





first name

last name

email

note

footer

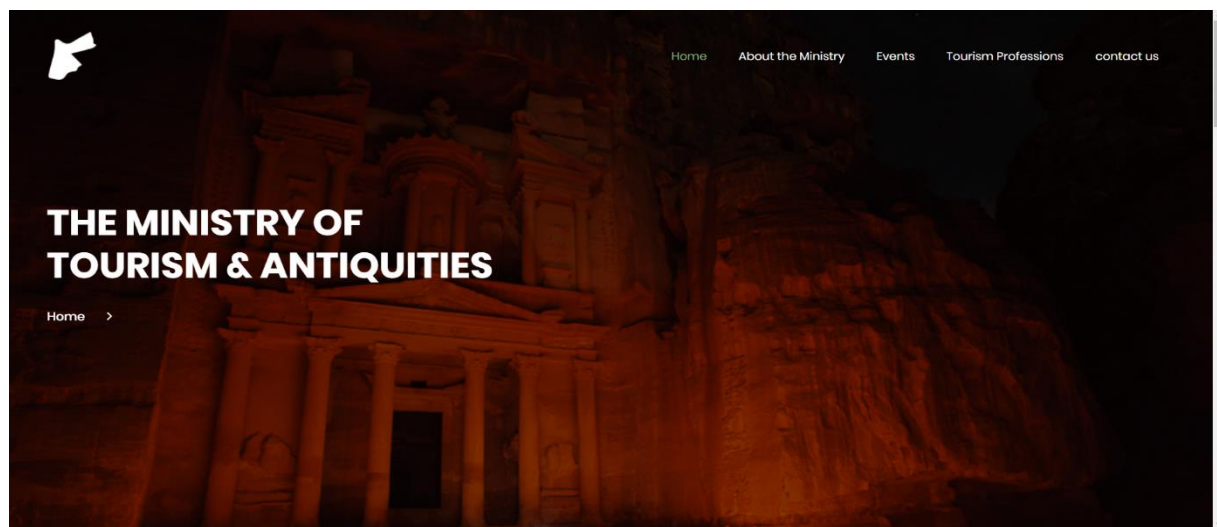


## IMPLEMENTATION:

The code was written with bootstrap, Where we found designs similar to the designed pages ,

It also provides us with a set of ready-made codes that may reduce long working hours , In addition, because the work does not require complication, To write the code from scratch

We will display a small portion of the pages that have been implemented, The rest of the pages can be viewed through the link [www.jooordan.com/index.html](http://www.jooordan.com/index.html)



### MINISTER'S SPEECH

Minister of Tourism & Antiquities

## Majd Shweikeh

The Ministry of Tourism and Antiques was established as a means to continue preserving the great historical and cultural heritage that our beloved Kingdom encompasses. Ever since its establishment, it has assumed the responsibility for developing and leading a sustainable tourism life in Jordan in partnership with the private sector by enforcing the role of cultural heritage in the overall vision of developing tourism as a complete sector, which would yield revenue that uplifts the national economy.

The Ministry has always been a pioneer in promoting the importance of developing a growing economic tourism.

[Show more](#)

20 Years of Experienced







## The 5th Annual Khubaizeh Festival

Great Air Show in Aqaba. On 20 and 21 March 2020, in this amazing city, an international air show will take place. We will see pilots from around the world. The show will take place over Aqaba bay. Pilots will show their skills during the day and the night.

## DATE AND TIME

Fri 20 Mar - Sat 21 Mar 2020

### Tourism Professions

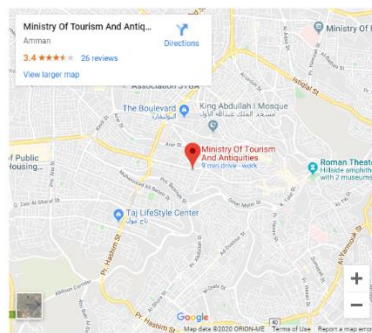
- [Start Your Tourism Business](#) >
- [Renew Your Tourism Business](#) >
- [Service Providers](#) >
- [Tour Guides Training Program](#) >
- [Professional Associations](#) >
- [Hotel Classification Standards](#) >
- [Tourism Services Guide](#) >
- [Tourist Restaurants Classification](#) >

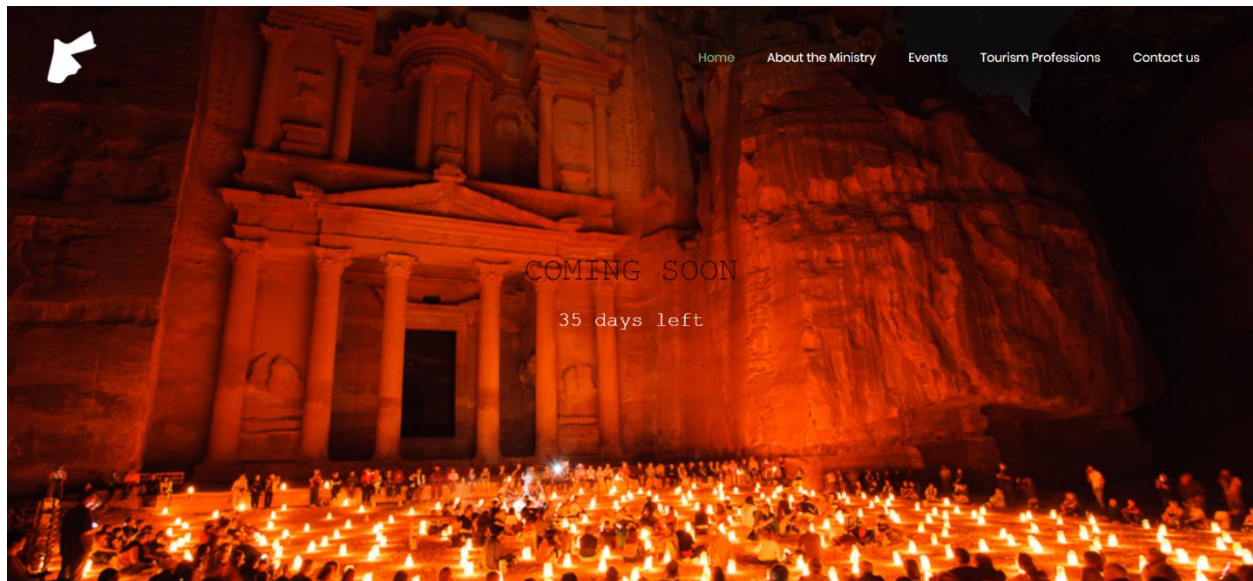
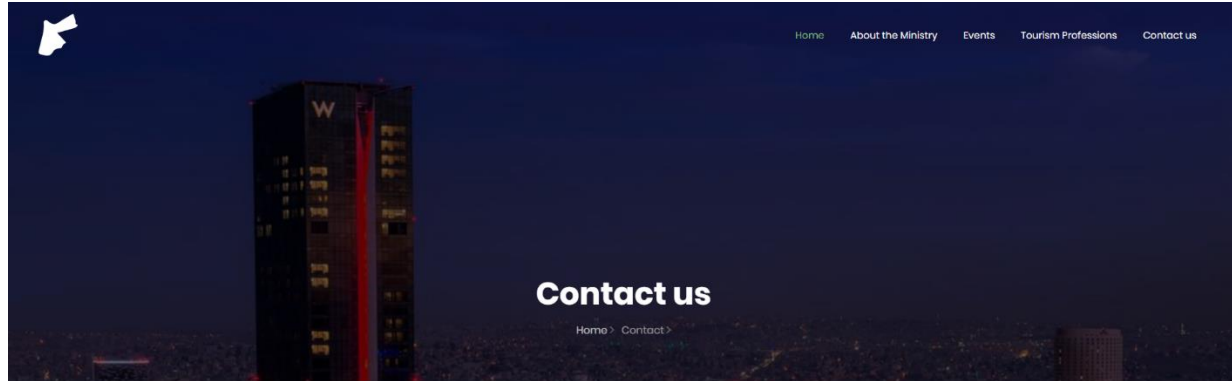
Address: 3rd circle - Jabal  
Amman

Phone: Tel: +962 6 4603380

Email: [contacts@mota.gov.jo](mailto:contacts@mota.gov.jo)

Website: [yoursite.com](http://yoursite.com)





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#### About The Ministry

Activating the role of the tourism industry to highlight Jordan's attractions and to distinguish Jordan as a unique tourism destination, and in appreciation of the role of tourism to national income by generating foreign exchange earnings, and, in recognition of the important role of the private sector in investment and development

#### Practice Areas

- > Start Your Tourism Business
- > Renew Your Tourism Business
- > Tour Guides Training Program
- > Professional Associations
- > Hotel Classification Standards
- > Tourism Services Guide
- > Service Providers

#### Business Hours

##### Opening Days:

Sunday - Thursday : 8am to 4 pm

##### Vacations:

Thursday and Friday  
All Official Holidays

#### Have a Questions?

📍 3rd circle - Jabal Amman

☎ +962 6 4803380

✉ contacts@mota.gov.jo



#### The Arab Theater Festival

Under the patronage of His Majesty "King Abdullah II Ibn Al-Hussain", the activities of the "Arab Theater Festival" will start in [Read more](#)



#### The 5th Annual Khubaizeh Festival

From the shores of the Dead Sea to Aqaba on the Red Sea, a 24-hour, 242km, self-supported, [Read more](#)



#### Visites guidées musée numérique : Kader Attia

Sunday, January 26th & Wednesday, January 29th Between Berlin and Algiers, discover the creative work [Read more](#)



#### Aqaba Air Show 2020

Great Air Show in Aqaba. On 20 and 21 March 2020, in this amazing city, an international air show will take place. We will see pilots from [Read more](#)

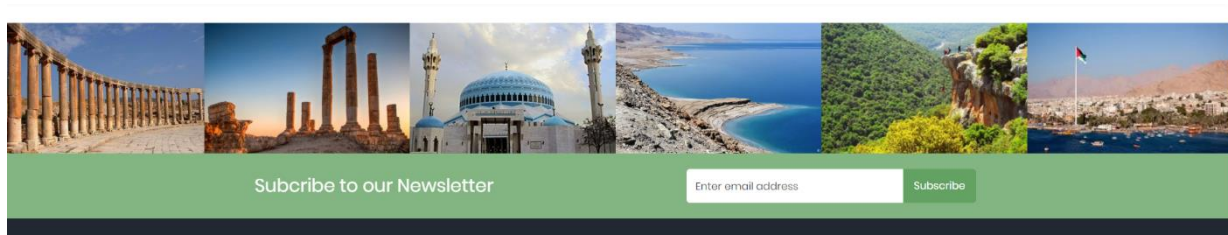


#### The 5th Annual Khubaizeh Festival

After 4 successful years of the annual Khubaizeh Festival, we are back bigger and better. Come enjoy our farmer's market [Read more](#)

## EVALUATION

We note that there are some differences between the designs that were prepared, and between the actual pages of the site , Several parts have been added that increase the aesthetic of the page, and do not affect business requirements , Like this part of the page



There have also been added features that can help the ministry in communicating with people, by receiving people's emails as shown in the picture

It was taken into consideration that all differences aim to increase the beauty of the site, or to add additional fields, that would serve the ministry And did not reduce Business requirements

During the implementation many tools were used , After making sure that it does not affect the requirements of business , It also enhances the aesthetic of the pages

Icomoon library was used to use ready icons, as it provides many free and beautiful icons

Template was used , Presented by Bootstrap, its Save hundreds of hours of work if we want to build the same website details from scratch and we Check to make sure that the template is selected as Response, It has clean code,

Some of the problems we encountered in Bootstrap, The CSS files are linked to more than one page, So some minor adjustments require a lot of work

We were also forced to make some changes to the page's appearance in order to correspond to the template used , We are also limited to a number of designs, and adding any design will require a great complexity

## TEST PLAN

After completing programming the website , A checklist has been created to verify that all the pages of the site are working as required ,

Verify that all pages exist when uploaded to the host

Ensure that all links work within the pages

Make sure the video on the home page is working

Verify that the items are in the correct location

Verify that all images are correct

Verify that the page is working efficiently when increasing or decreasing the page size

When working on the construction of the site, the ministry was reviewed to ensure that the process was going well, So errors were found at the beginning of the work , And we got an evaluation from the ministry on a weekly basis, to ensure the quality of the pages that will be created at the end of the process

After reviewing the site, we found some links that were not working were found , Also found are some pictures that do not work well when changing screen size ,

The rest of the other parts were working perfectly,

Help us check the site when we are finished with no problems when delivering the site,

It is normal for problems to exist on any website, but the arrival of the problems to the customer here is the problem, as it affects the reputation of the company, test plan helped us to discover the problems and solve them before handing over the site to the customer

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Portent. (2020). *Subdirectories vs. Subdomains for 2019 and Beyond*. [online] Available at: <https://www.portent.com/blog/seo/subdirectories-vs-subdomains-for-2019-and-beyond.htm> [Accessed 21 Jan. 2020].

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