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TOPIC

Development of a web application for park ticketing management

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إهـــــــــــــداء:

في بادئ الأمر أود أن اهدي اكبر تحيه لأكبر شخص عزيز على قلبي وهي أمي بدار فتيحة التي لولاها لم أصل إلى شيء والى جدتي عائشة التي دعواتها ترافقني والى خالي العزيز الديلمي والى أبي العزيز وأختي مريم وابنها عزيزي الصغير مهدي.والى نور عيوني ووحيدي أخي عمر والى خالتي سهام و زوجها أسامه وابنهما النوي وإلى أبناء خالي بشير النوي وخديجه وعمتي العزيزة عائشة والى كل أصدقائي ومعارفي من قريب أو بعيد.

مروة بن خالد

إهـــــــــــــداء:

الحمد الله الذي بنعمته تتم الصالحات والصلاة والسلام على خير الأنام سيدنا محمد صلى الله عليه وسلم،
أهدي ثمرة جهدي إلى:

إلى الذي رباني فأحسن تربيتي وأخذ بيدي إلى سبيل العلم والنجاح وكان لي عونا من كل الجوانب إلى النور الذي أضاء دربي، إلى الذي عبد لي الطريق نحو المستقبل، إلى منبع شجاعتي رحمك الله يا فخري واعتزازي، أبي الغالي.

إلى التي من عيونها وصوتها أستمد قوتي إلى جوهرة حياتي التي حملتني وهنا على وهن، إلى التي كان دعاؤها سر نجاحي إلى منبع العطاء والوفاء إلى جنتي أمي الغالية.

إلى من هو أقرب إلى من روحي، إلى سندي في الحياة، فخري واعتزازي، إلى الجذع الثابت الذي اتكأ عليه والى من تقاسم معي المسار حلوه ومره زوجي رفيق دربي "سهيل" حفظك الله من كل مكروه.

إلى العينين التي أستمد منها القوة و الاستمرار.....أعذب مافي عمري" نيمو , جنة " وإلى الذي صبر معي المشقة و التعب ولدي الغالي "فراسو" نور عيوني.

إلى من يذكرهم القلب قبل أن يكتب القلم إلى من قاسموني حلو الحياة و مرها تحت السقف الواحد إخوتي و أخواتي "سهيلة ,هيبة ,سمية ,صلاح و زينو " حفظهم الله و إلى الكتاكيت "إيادو, ادم ,مودو ,سلسبيل, ريتا ,سندوس(فراشتي) و ميرو.

ولا ينبغي أن أنسى رفيقة دربي و أختي"مروى بن خالد"بالإضافة إلى أساتذتي ممن كان لهم الدور الأكبر في مساندتي ومدي.

زبار سهام

TABLE OF CONTIENT:

LISTE OF FIGURES :

General Introduction :

1. General introduction:

Administration refers to the management and management of a thing, institution, or branch. The term is well-known and is used in many areas such as business administration, real estate, companies, airports, that is, the administration must take care of its affairs and its management in order to improve the process of requesting tickets, either in person or remotely, and the management of parks, so you need a system Information, which in turn plays the role of implementing management functions, and how much the information system is defined as a set of interconnected components that collect information, process it, store it, and disseminate information to support decision-making and good management of the authority. Aspects and from it our application is able to solve this problem.
A web application is a computer program that uses web browsers and web technology for performing internet tasks.

2. Motivation:

Because of our desire to serve customers, children, and owners of parks, and also because of the development of technology and the problem of waiting and queues, a platform that can facilitate the process of ordering tickets and facilitate the management process for owners of parks and city games, which will facilitate several other operations and even remote payment Problem.

3. Problem:

To manage the game park and manage its tickets correctly, the administration needs to access information that will help him to make decisions and choices and also helps the customer to book games and the price remotely and in attendance with

ease. In our thesis, by suggesting a platform that manages tickets and makes it an easy and fast process.

4. project objectives:

This work aims to design a database for professional management

Useful information for decision-making in this sector.

To do this, two targets appear in the bowels of this subject:

Create a park ticket management platform

Park management and organization الله

CHAPTER 1 :

DEVLOPING A WEB APPLICATION

CHAPTER 1 :DEVLOPING A WEB APPLICATION

1. Introduction:

The development of WEB applications has certain particularities, at the technical level and ergonomic. This specificity obliges us, at the time of design, to recommend design methods and work methods dedicated to this type of application. This chapter clarifies this peculiarity of WEB applications by emphasizing their features.

2. The web:

The Web, literally the "global (spider's) web", commonly referred to as the Web, sometimes the Web or the WWW (World Wide Web), is a hypertext system linked by the http protocol. This protocol works on the Internet network and makes it possible to consult, with a browser, pages stored on sites. The image of the cobweb comes from the hyperlinks that link the web pages between them.

The web is only one application of the Internet. Other applications also exist including email, instant messaging and Usenet. The Web was invented many years ago after the internet, but it was he who made the mainstream media aware of the internet. Since, the Web is frequently confused with Internet, in particular, the word Web is often used in non-technical texts without it being clearly expressed whether it designates the Web or Internet.[1]

3. WEB application :

Web applications rely on underlying technologies that render their content dynamic and which allow the user to modify the application state on the server. The distinction between websites and web applications is subtle,

since it resides in the latter case in the ability to affect application state on the server via a browser. Without it, it is inappropriate to talk about web application. Only systems that offer this possibility, and application servers that use a web server for user interaction, can be considered web applications. For all web applications, no matter how simple them, the user must transmit more than simple navigation requests; in general it can enter simple text, select option buttons, even give binary information or file.

The distinction becomes even more subtle in the case of search engines, for which relatively sophisticated search criteria are entered. The websites that are search engines only accept these criteria, which they use in a kind of query against a database to return results. When the user is done with the system, there is no noticeable difference in the state of the search engine, except, of course, in log files and hit counters. It is quite different for the web applications that, for example, accept registration information online. So the state of a website in which a user registers for training will be modified when this last will be done with the application.

The architecture of a website is very simple. It contains three components such as editors feed the web application and it automatically puts the principals: a web server, a network connection and client browsers. Applications web contain, in addition, an application server which makes it possible to process a logic and an application state. [2]

4. Types of applications web:

There is types of applications web as shown following:

a. Static web application:

Static web applications display little information and usually do not change a lot. They load on a user's browser exactly as they are stored on the web

server. As their name suggests, they lack flexibility and offer little or no of interaction.[3]

b. Dynamic web application:

Let's start with a short introduction to the web and web programming, limited to essential prerequisites to understand the rest of the course. You can easily find on the web lots of more extensive documentation on this topic, including a broader perspective on other languages (CSS, JavaScript) involved in the creation of a web application. The readers already familiar with these basics can skip this chapter without harm.[4]

c. E-shop or e-commerce web application:

Today, the web is the best means of communication in modern businesses. Of many companies are redefining their business strategies to improve production commercial. Business on the Internet offers customers and partners the opportunity to find their specific products and activities. Nowadays, online business breaks down the barrier of time and space in relation to the physical office. Major corporations around the world realize that e-commerce is not just about buying and selling on Internet, but rather improve efficiency to compete with other giants in the market.[5]

d. Portal web app:

A web portal is an application made available by a company for its customers, suppliers, partners. Its objective is to share a certain amount of information and premium features according to different users. Access to the web portal is achieved directly through a standard web browser using an internet connection.[6]

e. Web application with content manager:

In the case of web applications whose content must be constantly updated, it is preferable to use a content management system (CMS) through which the administrator can carry out the modifications and updates itself. [7]

5. Front-End Developer and Back-End Developer:

Truth be told, you're not the only one wondering. These terms come certainly get mixed up in your mind with "web integrator" or even "webmaster", «programmer», «web designer»…

The roles and job profiles of web production have evolved over the past few years, it is therefore sometimes difficult to understand what each person actually does. [1]

We will identify and differentiate the roles of Front-End developer and Back developer

Figure 1:front end and back end devloper

- **Front End Developer:**

When we talk about "Front-End", it is ultimately about the elements of the site that we see on the screen and with whom we can interact. These elements are composed of HTML, CSS and JavaScript, controlled by the user's web browser. The Front-End's fields of competence can be split into two:

- ✓ Design.
- ✓ HTML, CSS, JavaScript development.

The design is traditionally done by a web designer who produces mockups graphics using Photoshop or Sketch. However more and more web designers have crossed barrier and know how to code in HTML and CSS. In some cases they are also able to produce of JavaScript.

Previously when we spoke of developer, we implied Back-End developer. Now we realize that some web designers also have skills in development.

The Front-End developer is therefore a person who can come from the middle of web design in having strengthened their knowledge of development. He can also be a developer who has chosen to specialize in Front-End technologies and languages such as:

- ✓ HTML.
- ✓ CSS.
- ✓ JavaScript.
- ✓ JQuery / React / Vue / Angular

JQuery is a JavaScript Framework, to simplify it is a JavaScript library which makes coding faster and easier.

React is one of the most popular JavaScript libraries around. This library is used in particular to create single page applications and to solve complex user/interface interaction issues that jQuery can't solve easily.

Vue or Vue.js is a JavaScript framework that is renowned for being easy to learn. He comes to be placed in direct competitor of React. These two giants of the JavaScript ecosystem are at neck and neck in usage and popularity.

Angular is also a JavaScript Framework initiated by Google but which has lost popularity these last years. Yet it is just as efficient as its competitor.

There are many JavaScript libraries more or less complex and suitable for different uses. Anyway, here's definitely everything a front-end developer should to master.[1]

- **The Back-End Developer:**

The Back-End is a bit like the submerged part of the iceberg. She is invisible to visitors but represents a large part of the development of a web project. Without it, the website remains an empty shell. The Back-End can be broken down into three essential parts:

- ✓ A server (or web hosting).
- ✓ An application (in this case the website).
- ✓ A database (where application data is stored).

The server is like a hard disk accessible 24 hours a day, on which the pages of the website are recorded.

To be able to keep your passwords, your preferences, your shopping cart that you have entered using Front-End elements, they must be saved in a database.

The database is comparable to a large table with columns containing for example "surname", "first name", "password", "purchase in progress". When you register on a site, your profile is saved in this table.

To be able to store, process, modify this data and provide up-to-date information on a website (such as news, product sheets, images, videos), the developer Back-End will use “dynamic” programming languages.

The most used languages are PHP, Ruby, Python, SQL. Often to make the code more clear, easily modifiable and easier to maintain as a team, the developer works with frameworks such as Laravel or Symfony.

Finally, the Back-End developer also sets up and configures the server that will host the site itself.[1]

6. Website content:

A website is a collection of static and dynamic pages. A static page is not modified when a visitor consults it: the Web server transmits the page to the browser which request without modifying it.

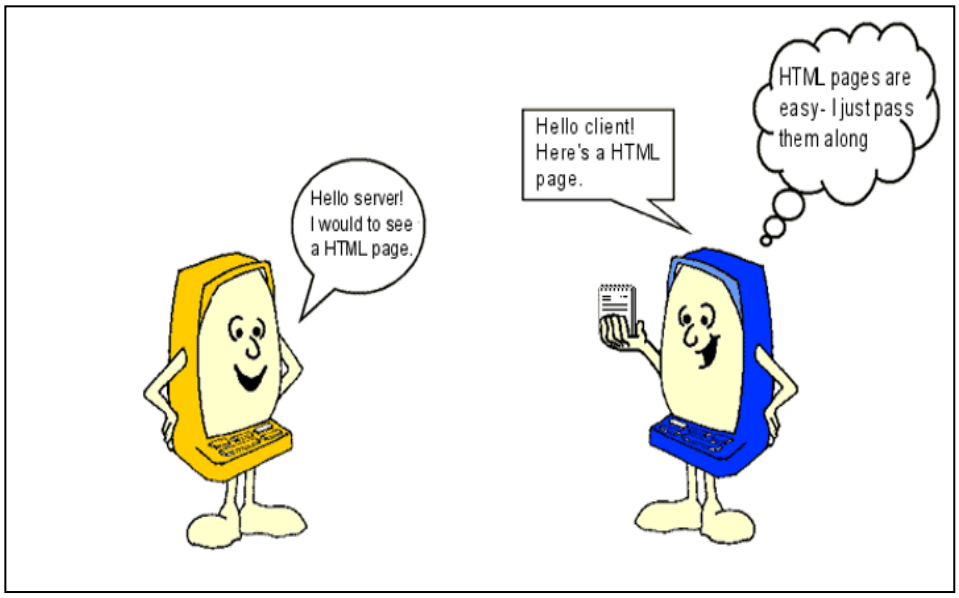

Figure 2: static pages

Conversely, a dynamic Web page is modified (constructed) by the server before being transmitted to the browser that requests it. That's why this page says dynamic.[2]

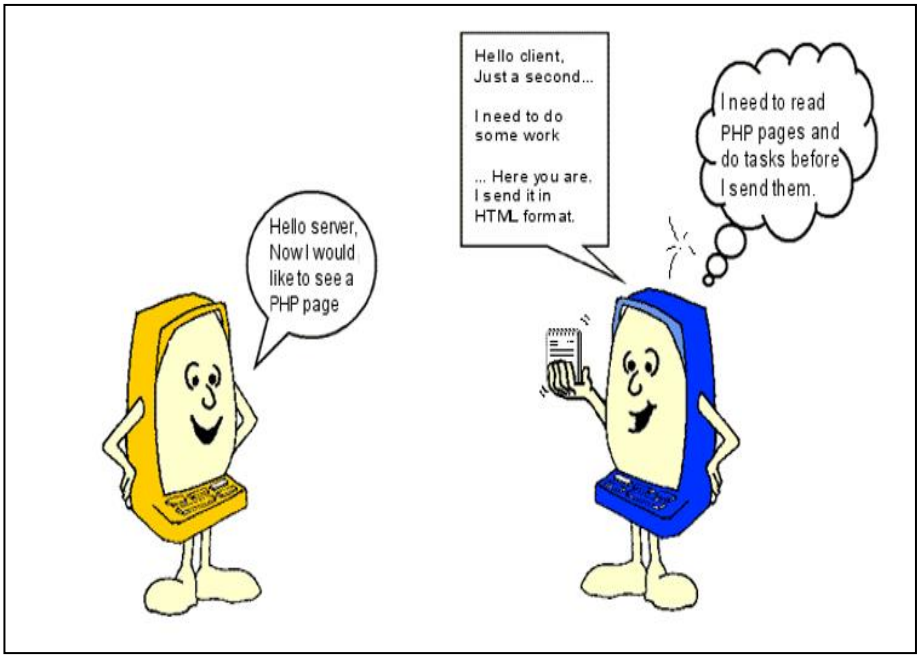

Figure 3: dynamic page

For example, you can create a page to display the results of the implementation program. form and ensure that certain information (such as the employee's name and results) are determined when a page is requested by a given employee.

7. The development process :

We do not develop an application as we follow a recipe. The skills and skills of the actors involved are fully solicited. This in no way diminishes the importance of the definition of the project. But if the efforts of a development team can sufficient to complete a project, they will be even better rewarded if from the outset the process has been properly defined

A development process performs four functions :

- ✓ Determine the order of a team's activities.

- ✓ Specify the artifacts to be developed.
- ✓ Guide the task of developers and the team as a whole.
- ✓ Provide criteria for monitoring and evaluating products and activities.[8]

A software development process can take the form of a set of documents or hypertext files. Process defines business process chains (workflows), the activities, artifacts and roles of the actors involved in the process of development. An actor, in this sense, is a role played by an individual during the process. In many teams, individuals assume the roles of several actors. A workflow is a set of activities that ultimately produces a concrete and observable result Thus, the determination of needs, modeling by use case, analysis, design. A workflow defines a set of activities in which actors invest. The activities represent what the actors do to produce the output artifacts of the workflow. A artifact means any piece of information that is produced by the actors in the process. The artifacts can be code, graph, database schemas, text documents, diagrams, models, etc. They have an important property: they can be subjected to a version control because they often evolve throughout the process; a precise history of these sequences of changes is indeed critical. [2]

The process described here is based on the Rational Unified Process (RUP) for Rational Unified and the ICONIX Unified Process Both stem from processes and object-oriented methodologies based on the work of Grady Booch, Ivar Jacobson and Jim Rumbaugh These two processes are not the only formal processes used today there are many other processes.[9]

Like others, both of these processes are iterative. This means that each phase of the process, needs analysis, analysis and design, implementation, testing and evaluation, is repeated and refined until the process meets the

needs and can be deployed. It's a quite different orientation from the traditional cascading life cycle process, in which each phase of the project was completed before the team moved on to the next. The process iterative results from the observation that, very often, the development of software does not don't go that way.

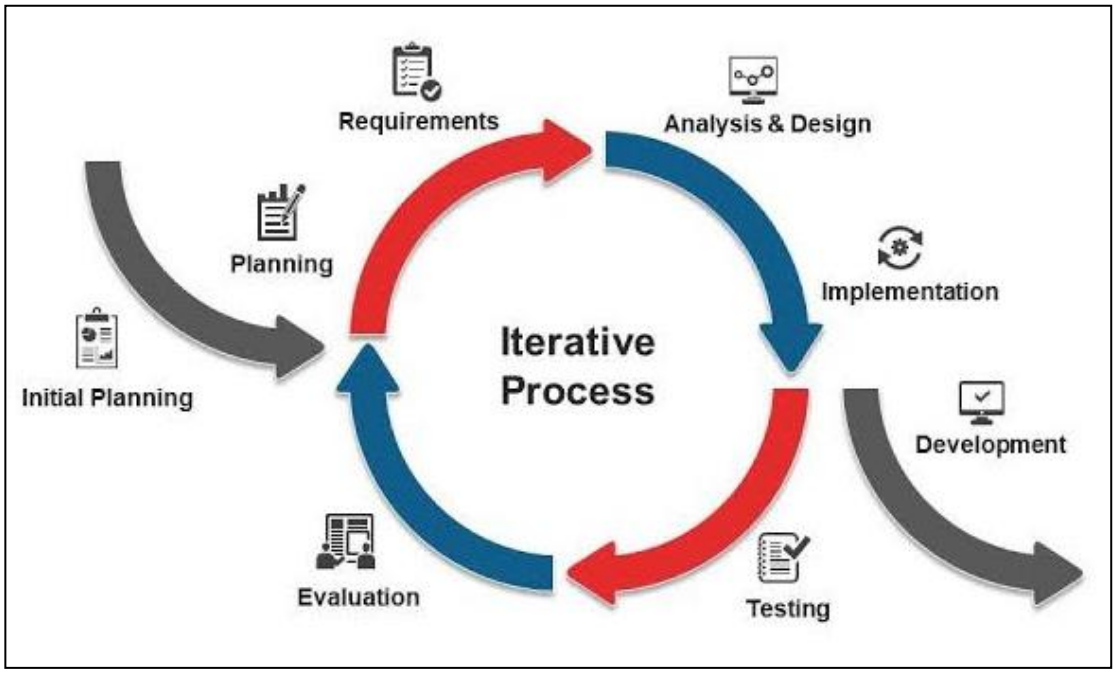

Figure 4:iterative process

While the processes described in manuals are abstract, the very realization of a development process is a process in itself. However, one cannot impose a methodology to a team while hoping that it conforms to an organization, without an effort adaptation is undertaken. [2]

a.**The model :**

Communication is essential in the process; this is precisely one of the attributions of the system model than to serve as a communication mechanism. The model is a abstract representation of the system to be developed, the system under development and the system developed. The model therefore evolves with the system, playing a major role in each

phase. of the project. The model is a set of artifacts each representing a view of the system. It is used by almost every member of the team, from sponsors whose working conditions will be improved by the system, down to the developers responsible for implementing its components. Each participant in the development process uses or enriches the model differently Communication is facilitated because all members are part involved in the development of the same model, even if each participant has a vision particular.[2]

b.**The workflows :**

The main workflows of the software development process are:

project management, needs, analysis, design, implementation, testing deployment, configuration and change management.[10]

- **project management :**

The project management workflow is responsible for the overall management of the application including the management of resources and budgets, and also assumes the role of spokesperson for the project. The project management workflow produces the following artifacts :

•Project schedule.

• Planning of iterations.

• Risk management.

• Progress monitoring.

- **The collection of needs :**

A requirement is a statement of what the system should do. All the needs is defined in the requirement specification.

- **Analysis :**

Analysis and design are often strongly associated; we prefer to separate them in two separate workflows. Indeed, although in most cases the same individuals participate in both workflows, the activities and objectives are very different. Analysis is the process which, starting from the examination of the needs, produces a conceptual model of the system to be develop. Analysis artifacts include detailed classes and collaborations, sequence diagrams, state diagrams and activity diagrams.[2]

- **Design :**

The design workflow processes artifacts produced during analysis by applying architecture. The main purpose of the design is to make the analysis model feasible in the form of software. It was then the first time that the abstract concepts of the profession were facing the software world. In some cases, the introduction of an architecture affects both the model that two separate models of the system are maintained: an analysis model and a Design. These models are just two different views of the same system. In the case where two models must coexist, the configuration and change management workflow has a new responsibility: ensuring the consistency of the two models.

- **Implementation :**

The implementation of web applications often involves the simultaneous mastery of many technologies. For client-side development, languages and techniques are mainly HTML, JavaScript, Java, ActiveX and possibly distributed object technologies. On the server, the languages and technologies are more varied with third-party languages generation and object-oriented languages (C/C++, Java, Smalltalk, Ada, Eiffel, PHP), but also component-based technologies (JavaBeans, COM), and finally

technologies traditional databases. We thus find on the server all the technologies of a classic client-server system.

- **The tests :**

Many different tests are performed on the system; each of them tries to determine a property of the system. A performance test assesses the system's ability to operate quickly under the pressure of a heavy load.[2]

8. Languages used for creating web applications :

The development of a web application requires knowledge of different languages used in web technologies: HTML for page presentation, CSS (Cascading Style Sheets) for the graphic charter, JavaScript, Java or action script for the automations executed by the client, as well as a language such as Java, PHP and others[11]

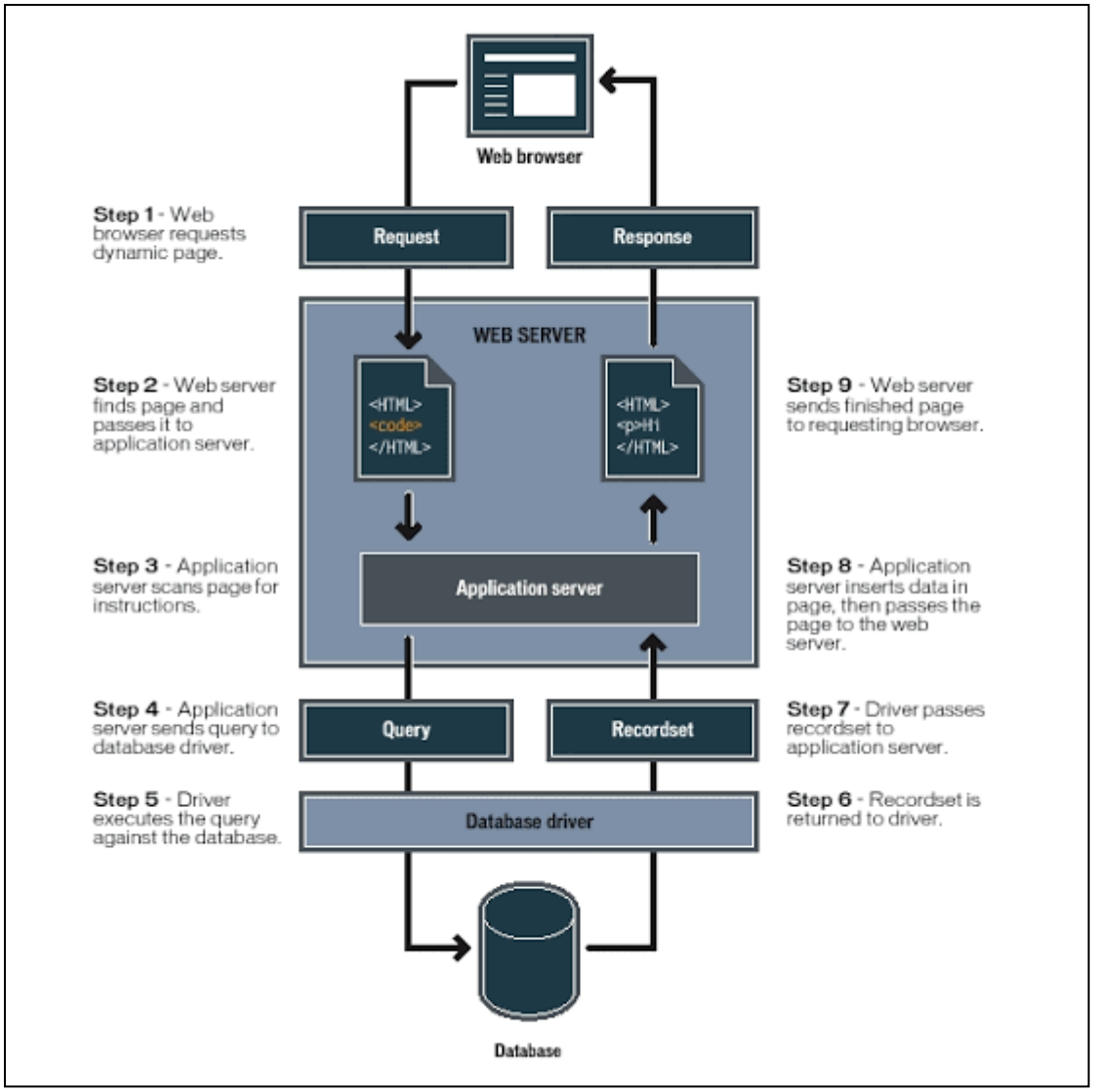

Figure 5: how application web Works

a.HTML and CSS :

Used today in version 5, HTML is the language used to create pages for the Web. It is therefore a web language. In reality, HTML5 is not strictly speaking a programming language. Rather, it is a markup language. It simply means that your code will contain tags which themselves will contain the information you want display on your web page. The binomial of HTML5 is CSS3. Where the HTML will put the content on our web page, the CSS will be used to format these contents. You will thus be able, thanks to the CSS, to choose the font you want to use, its size or

the background color of your web page. Each CSS instruction you write will point to the HTML element you want customize. HTML5 and CSS3 are the basis of all websites.[11]

b.JavaScript (JS) :

JavaScript was originally used to make web pages dynamic. Where HTML5 and CSS3 respectively allow the display and formatting of your elements on your page web, the JavaScript will make this page interactive. Essential today because of the number of followers, JavaScript will no longer only improve the visual aspect of your site (front end) but also to create the engine that will run the site (back-end) and to manage the databases associated with the website. It is the JavaScript that will allow you to check that the data entered by a user in your contact form on your website are in the correct format.[11]

c. PHP :

The users who will come to your site will be diverse and varied. The content of your site therefore may not be the same for all users. PHP does just that. What do you mean is it happening? Your Internet user will access your web page, his computer, called the client, will send a request to another computer, called the server. The role of the server is to store your pages web. The server will prepare the page especially for this client and send it to him. PHP thus allows your page to respond specifically to customer requests by changing the content of the page requested Just as HTML5 has CSS3 as a partner, PHP has as a sidekick a system for manage data. MySQL is one of the best known. Its role will be to record the information related to your website in an organized way. The goal will be to find them more easily. Whether your site allows members to register,

it is thanks to MySQL that you can register them and bring them out later when the member wants to change his pseudonym, for example.[11]

9. Conclusion :

Web development is an expanding field, companies, individuals everyone is concerned. At the same time, technologies are evolving towards models visibly facilitating the work of web developers, integration and design solutions web architectures are offered to speed up the development process. This chapter introduced us to some aspects of this field. We focused on the side functional to allow an appropriation with the theme of this dissertation, namely the reconciliation of web application design methods in order to propose solutions functionally usable.

CHAPTER 2 :

DESIGN PHASE

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1. Introduction:

The development of a Web application goes through several stages and has a long and complex path, which is why it is necessary to prepare well and do the necessary studies in order to avoid all kinds of errors that would lead the project to failure. In this chapter we will present the study necessary to make the adequate design for our solution.

2. Project life cycle:

2.1. Description:

The life cycle of an application designates all the stages of development of the expected software. There are different types of development cycles that go into making software. These cycles take into account all the stages of software design.

In order to control the stages of our project and facilitate the management of our application construction, we opted for the V-shaped life cycle model.

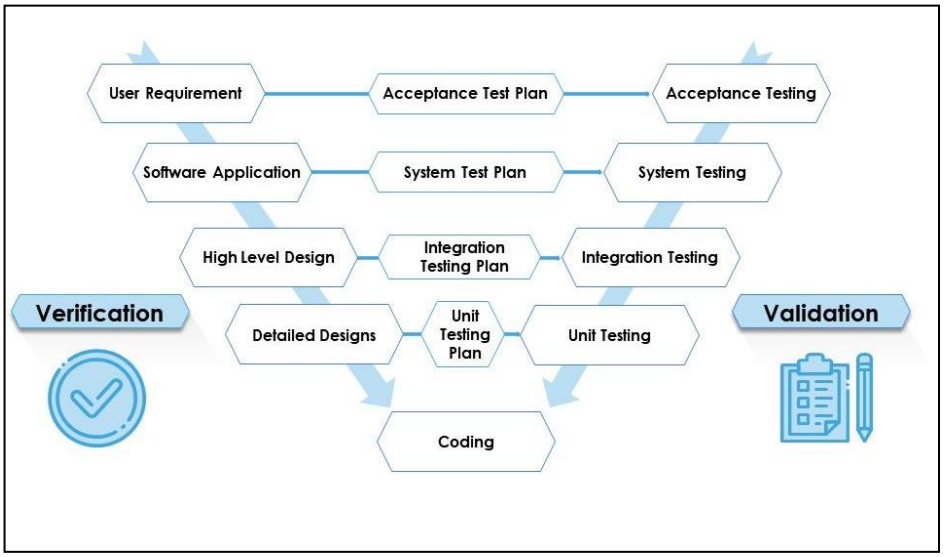

Figure 6: V model of software project life cycle

The principle of this model is an improvement of the cascade model which allows, in the event of an anomaly, to limit a return to the previous stages. It is composed of a descending then ascending phase, the ascending phase sends information vis-à-vis the descending phase.

The V-shaped lifecycle model assumes that procedures for verifying software conformance to specifications should be developed early in the design phase.

The V-cycle is made up of three main phases containing the design stages:

- **Design stage:**
  - Analysis of needs and feasibility
  - Specifications
  - Architectural Design
  - Detailed design
- **Implementation phase:**
  - Coding
  - Unit tests
- **Validation phase:**
  - Integration testing
  - Validation test
  - Recipe

3. UML design:

3.1. The UML language (Unified Modeling Language):

Unified Modeling Language is a graphical modeling language designed to visualize and present the design of a well-defined system, it is commonly used in software development and object-oriented design.

UML notation is a visual language made up of a set of diagrams, called diagrams to represent the software to be developed and its operation.

3.2. force points of UML:

UML is a formal and standardized language: It allows the gain of precision, encourages the use of tools and constitutes for this purpose a pledge of stability UML is a powerful communication medium: It frames the analysis and facilitates the understanding of complex abstract representations. Its versatile nature and its flexibility make it a universal language.

3.3. Weak points of UML :

Putting UML into practice requires learning and goes through a period of adaptation. Even if Esperanto is a utopia, the need to agree on modes of expression common is vital in computing. UML is not at the origin of object concepts, but in constitutes a major step, because it unifies the different approaches and gives a definition more formal.

The process (not covered by UML) is another key to the success of a project. Gold, integrating UML into a process is not trivial and improving a process is a task complex and long. UML authors are well aware of the importance of process, but the industrial acceptability of object modeling first passes through the availability of an analysis language.

3.4. Modeling : analyse et conception :

A good software development methodology presupposes a good mastery of the distinction between analysis and design . The reader will see that in practice, respecting a distinction between rigorously

independent analysis and design phases is not tenable, but it is important to keep in mind the difference when preparing to make a software. Again, it is important to keep in mind that UML does not offer a methodology for analysis and design, but a language that allows to express the result of these phases. From the point of view of the notations used in UML, the differences between analysis and design result above all in differences in the level of detail in diagrams used. The following differences can thus be noted:

- In an analysis class diagram, the only classes that appear are used to describe concrete objects of the modeled domain.

- In a design class diagram, by contrast, we also find all the classes utilities intended to ensure the operation of the software.

- In an analysis class diagram, we can content ourselves with showing just the naming of classes, sometimes with the name of some attributes and methods when these flow naturally from the modeled domain. In a design class diagram, in contrast, all attributes and all methods must appear in detail, with all parameter types and return types.

- In an analysis sequence diagram, the communications between the main objects are written in textual form, without worrying about the form that these exchanges will take when building the software. In a design sequence diagram, for opposition, the exchanges between classes appear in the form of calls to methods whose signatures are fully explained. The steps for moving from diagrams from analysis to design diagrams and the motivations for progressive formalization.

3.5. Language: modeling methodology or language :

It is important to make a clear distinction between a method which is an approach of organization and design with a view to solving a computer problem, and the formalism which it can use to express the result (see the glossary in the appendix).

Large companies often have their own methods of designing or producing IT projects. These are related to historical reasons, organizational internal administrative or other environmental constraints and it is not easy to change it. It was therefore unrealistic to attempt to standardize a global design methodology. UML is not a method, but a language.

It can therefore be used without calling into question the usual methods of designing the company and, in particular, the older methods such as that proposed by OMT are quite usable.

Moreover, the company RATIONAL (main actor of UML) proposes its own process of design called OBJECTORY and entirely based on UML. Thus, UML facilitates communication between customers and designers, as well as between designers. Moreover, its semantics being formally, it speeds up the development of graphical software engineering workshop tools, thus making it possible to go from specification (high level) in UML towards code generation (JAVA, C++, ADA, ...). Of moreover, it authorizes the electronic exchange of documents which become specifications executables in UML.

UML does not content itself with homogenizing existing formalisms, but also brings a certain number of novelties such as

the modeling of distributed architectures or the modeling of real-time applications with multi-tasking management.

3.6. Different views of UML:

All the views offered by UML are complementary to each other, they allow to highlight different aspects of a software to be produced. We can organize a presentation of UML around a breakdown into views, or into different diagrams, depending on that we rather separate the functional aspects from the architectural aspects, or the static aspects dynamic aspects. We will rather adopt in the following a breakdown into diagrams, but we start by presenting the different views, which are as follows:

- **the functional view:**

interactive, which is represented using case diagrams and sequence diagrams. It seeks to understand the interactions between the different actors/users and the system, in the form of an objective to be achieved on the one hand and in the form timeline of each other's typical interaction scenarios.

- **the structural view:**

or static: brings together the class diagrams and the diagrams of packages. The former favor the structuring of data and attempt to identify the objects/components constituting the program, their attributes, operations and methods, as well as the ties or associations that unite them. The latter endeavor to regroup the classes strongly linked together into components that are as autonomous as possible. Inside of each package, there is a class diagram.

- **the dynamic view:**

which is expressed by state diagrams. This view is more algorithmic and "processing" oriented, it aims to describe the evolution (the dynamics) of complex program objects throughout their life cycle. From their birth to their dead, objects see their changes of state guided by interactions with others objects. The activity diagram is a kind of flowchart corresponding to a version simplified state diagram. It makes it possible to model activities that take place in parallel to each other, when this parallelism can be a problem. In general, the state diagrams alone do not reveal specific problems posed by the synchronization of competing processes, to ensure the consistency of the behavior and the absence of interblocking. Establishing an activity diagram can help to put develop a state diagram.[2]

3.7. Structural diagrams or static diagrams (UML Structure) :

- Class Diagram.
- Objects diagram.
- State machine diagram.
- Interaction overview diagram.
- Sequence Diagram.
- Communication Diagram.
- Timing Diagram.

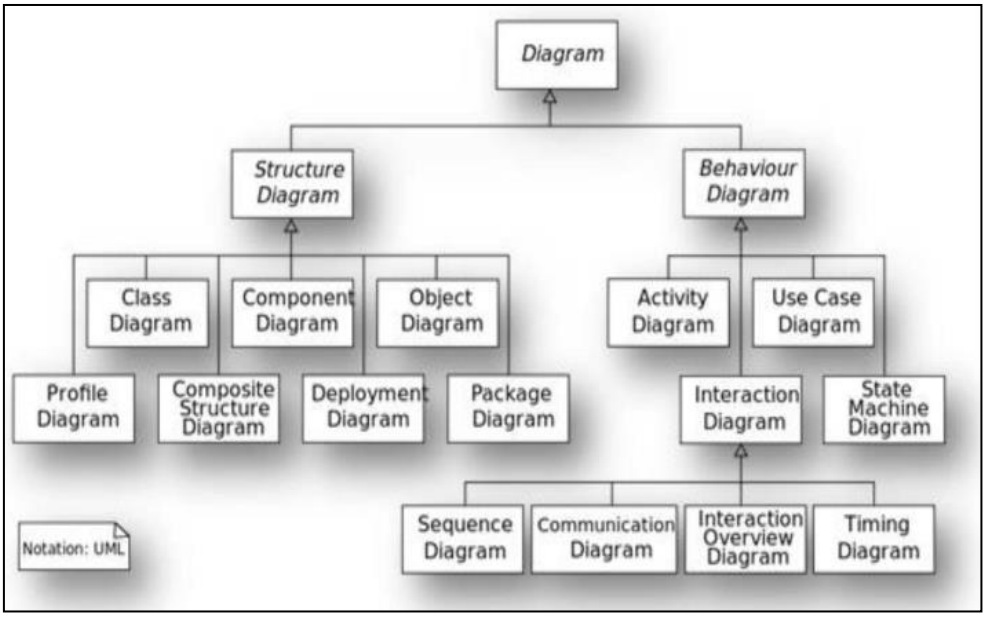

Figure 7: Uml model

Now, we will present some diagrams used in our work:

- **Use case diagram :**

The usage diagram is intended to represent the needs of the users in relation to the system. It constitutes one of the most structuring diagrams in the analysis of a system.[1]

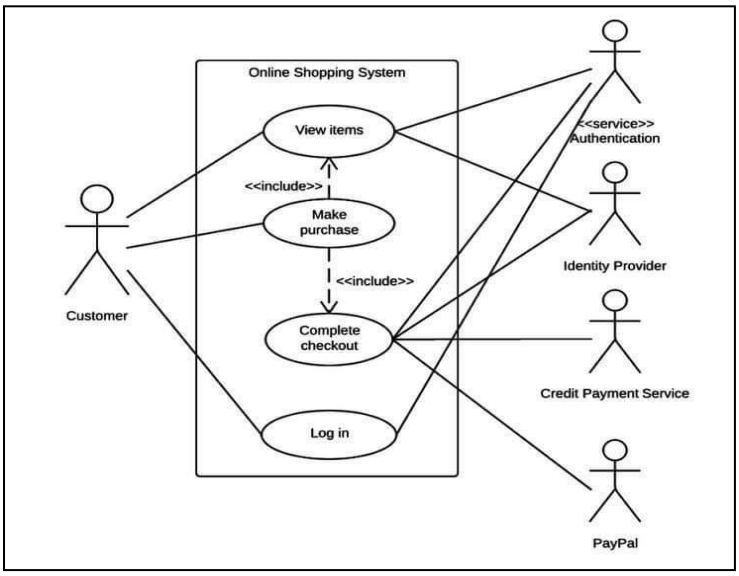

Figure 8:example of use case diagram

- **Class diagram :**

The diagram class diagram represents the static description of the system by integrating in each class the part dedicated to data and the part dedicated to processing. This is the diagram pivot of the entire modeling of a system.[1]

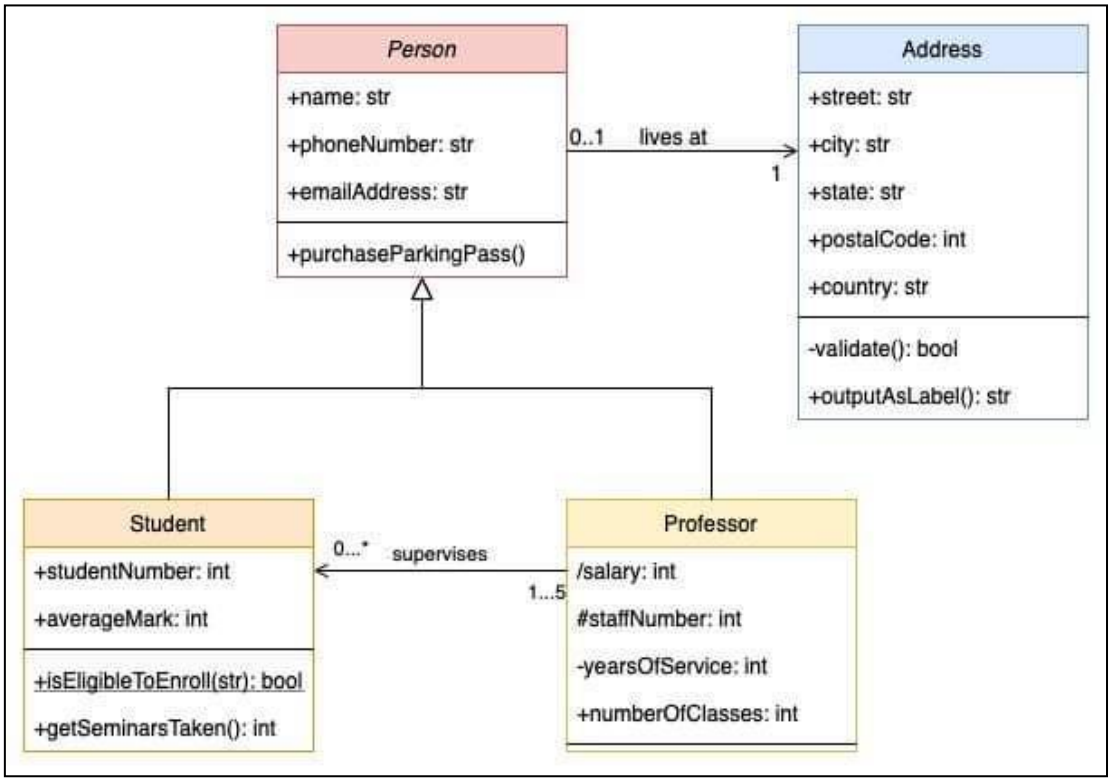

Figure 9: example of class diagram.

- **Sequence diagram :**

The sequence diagram is used to describe the scenarios of each use case by putting emphasis on the chronology of operations in interaction with objects.[1]

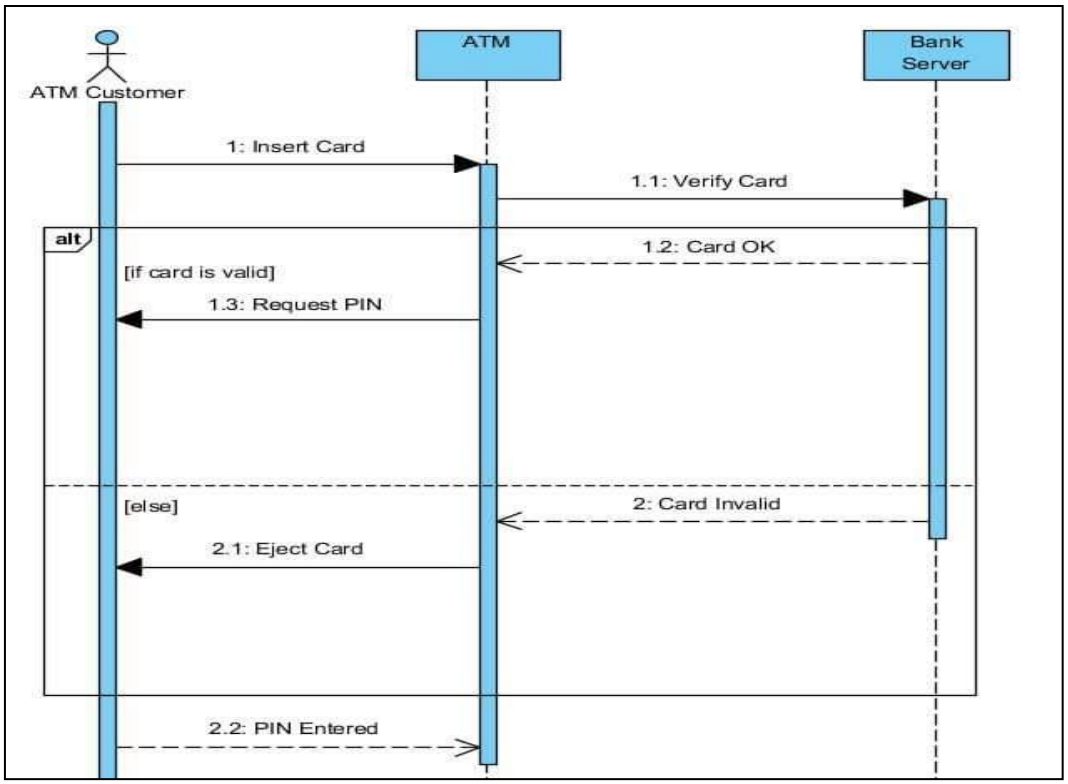

Figure 10: example of sequence diagram.

3.8. General Class Diagram:

The class diagram is a static representation of the objects and elements of a system as well as the different relationships between them. The following diagram represents the elements and structure of our application's database. It is an abstract class diagram it generally represents the entities of our application:

- Client.
- User.
- Ticket.
- Person.

- Admin.

The following figure represent the class diagram:

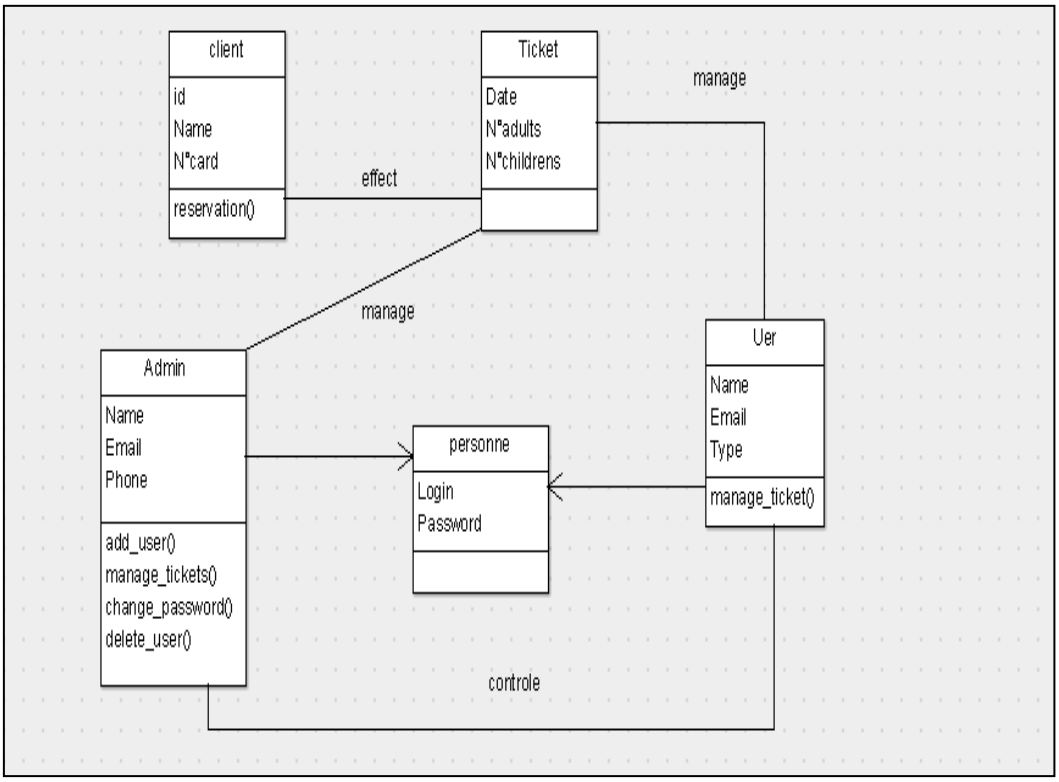

Figure 11: general class diagram of the site

3.9. Identification of Actors :

- **Client :** enters the necessary information in order to request a ticket, and he can change the information or delete his request before the period specified for the ticket expires
- **Admin :** He is responsible for controlling the system, he can add or delete users, and he can change information for users and manage tickets.

3.10. use case diagram :

After identifying the actors, the general use case diagram gives an overview of the functional behavior of our application.

The following figure shows the overall use case diagram.

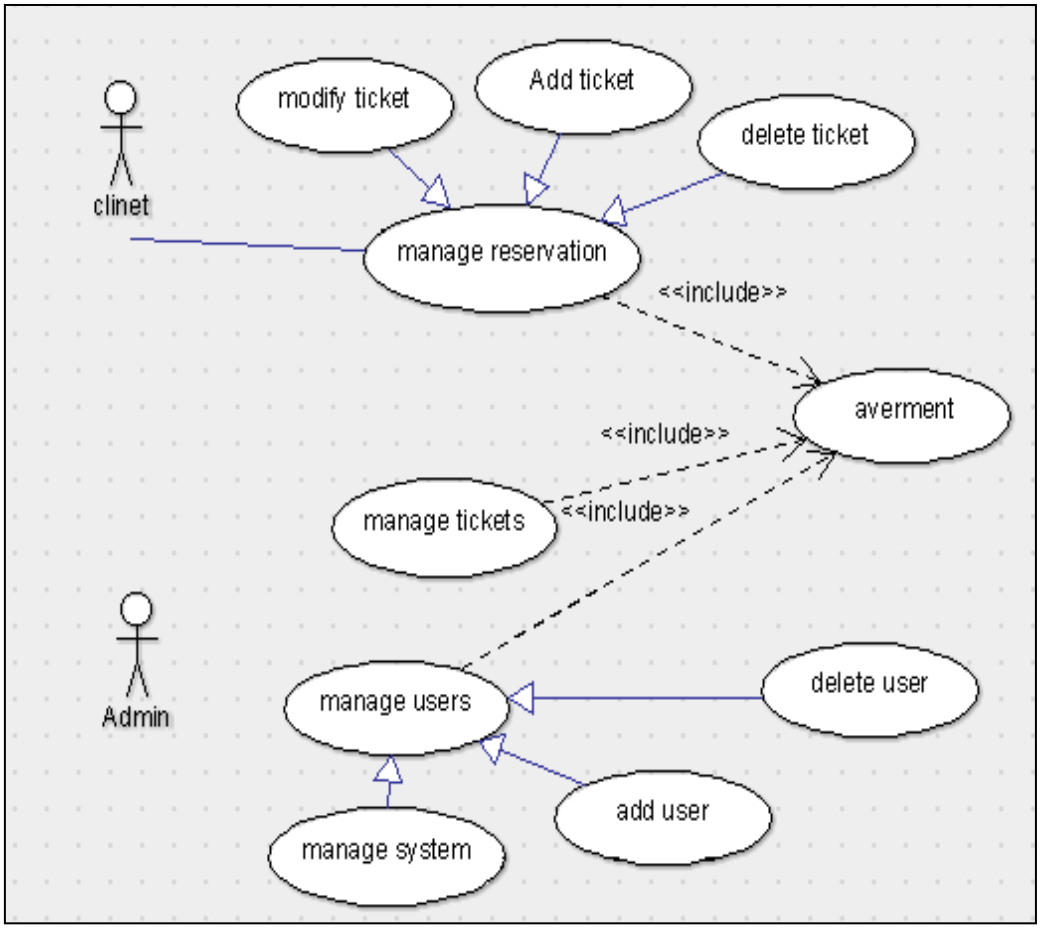

Figure 12: general use case diagram

3.11. Sequence diagram:

The sequence diagram is a graphical representation which makes it possible to present the interactions between the actor and the components of the system with messages presented in a chronological order.

the following figure show the general sequence diagram:

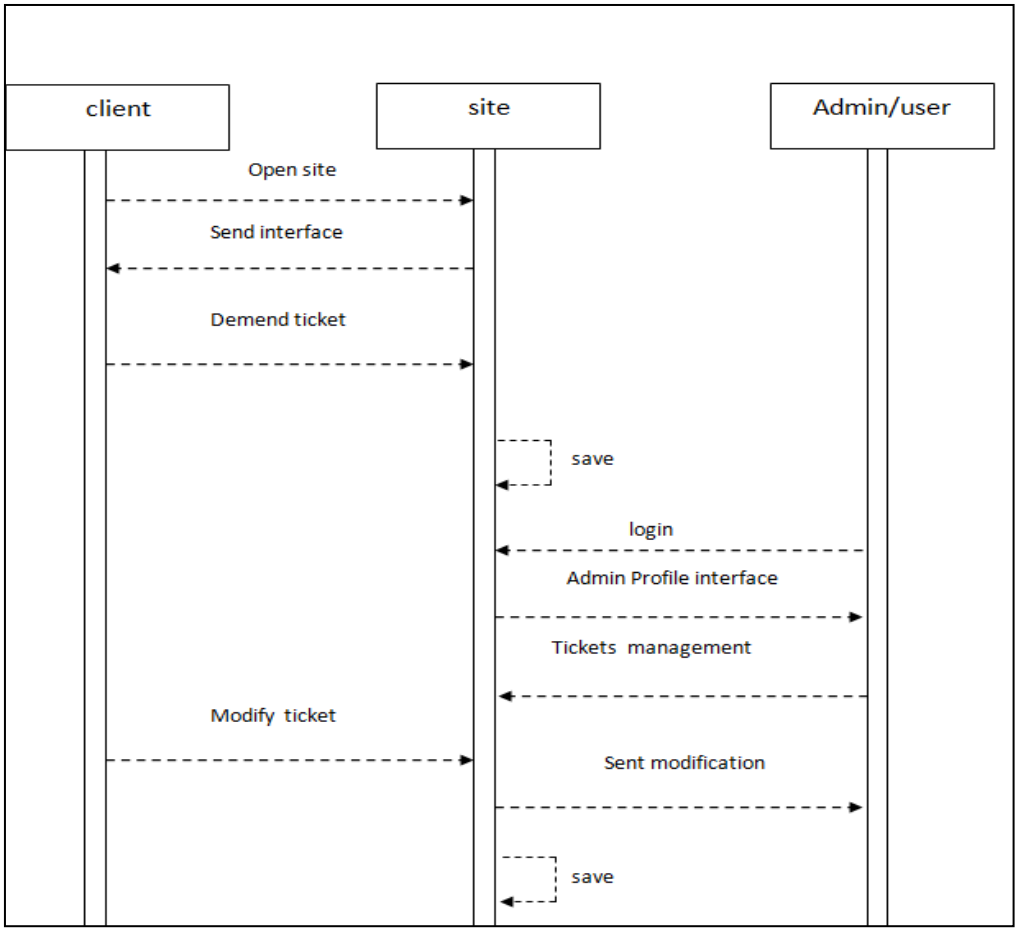

Figure 13:general sequence diagram

Now we represent the Sequence diagram of the following status :

a. Login status:

The administrator logs in by entering the password and e-mail. If the password is incorrect or in the event of forgetting it, he can request to return the password by phone and e-mail the diagrame is as following :

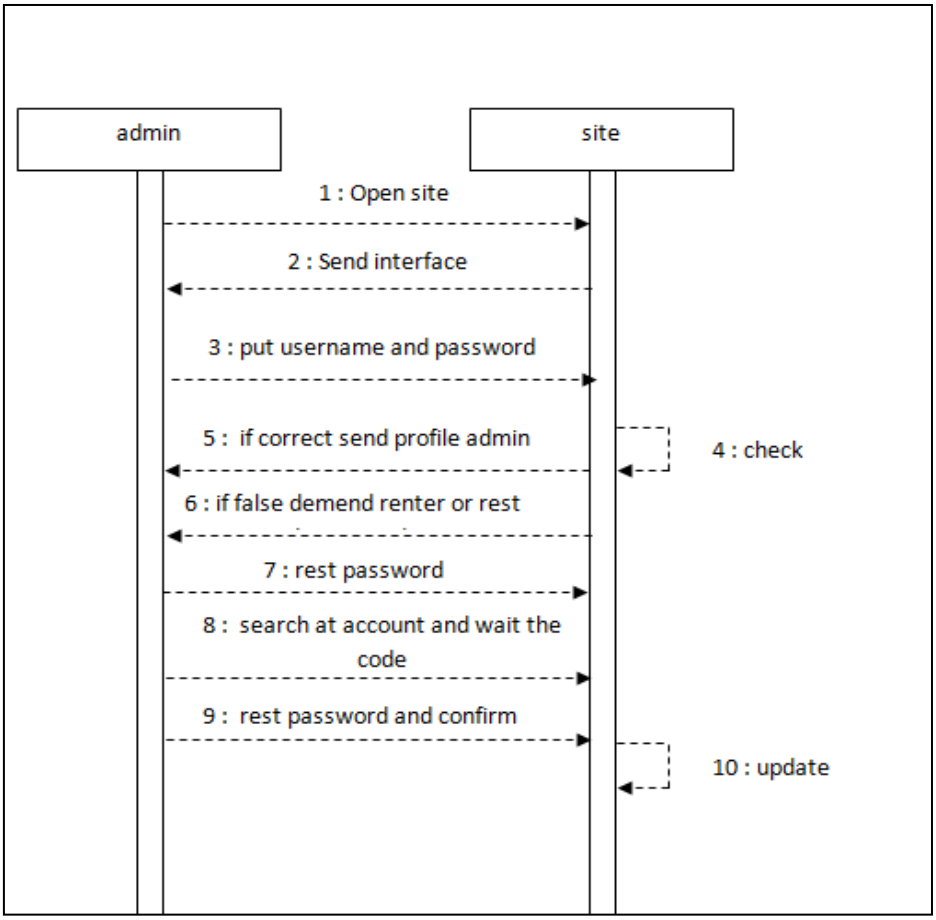

Figure 14: sequence diagram of Login status

b. Ticket request status:

When the user enters the site, he enters the number of tickets for adults and the number of tickets for children, in addition to the name and date.

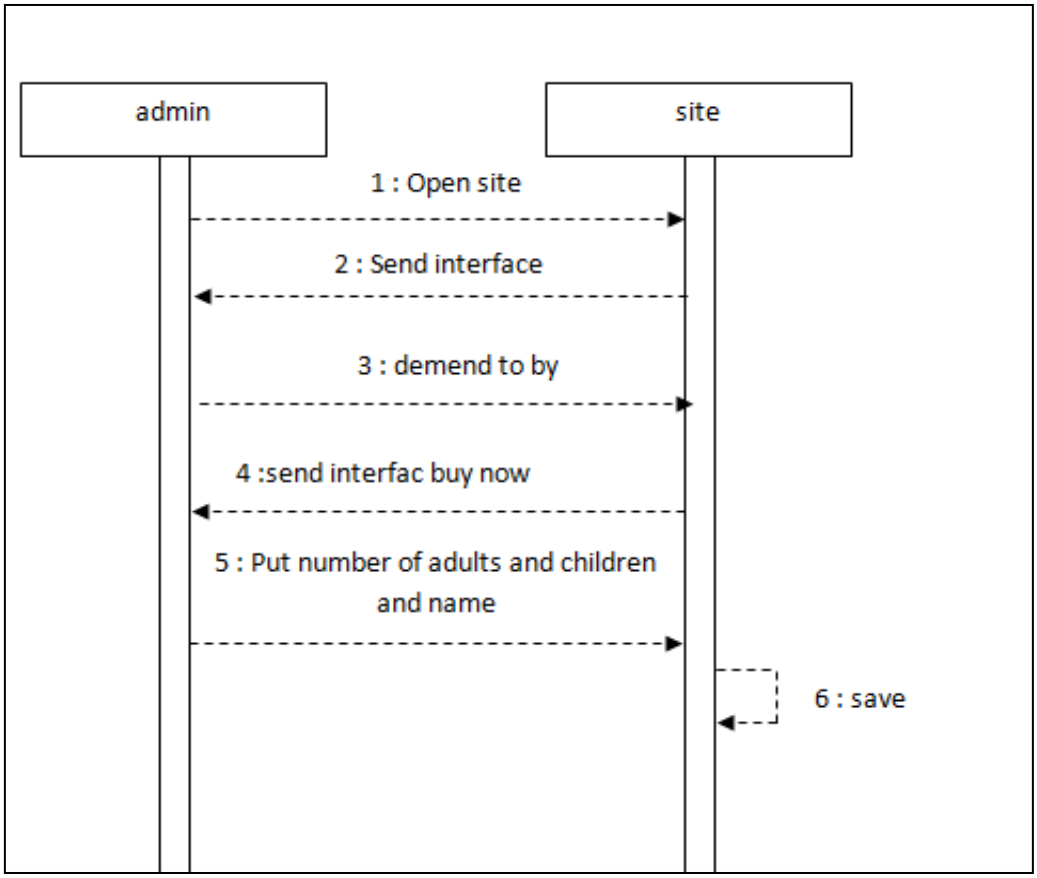

Figure 15: sequence diagram of Ticket request status

c. Information change status:

The administrator goes to admin profile and changes the information to be changed. As shown in the next picture :

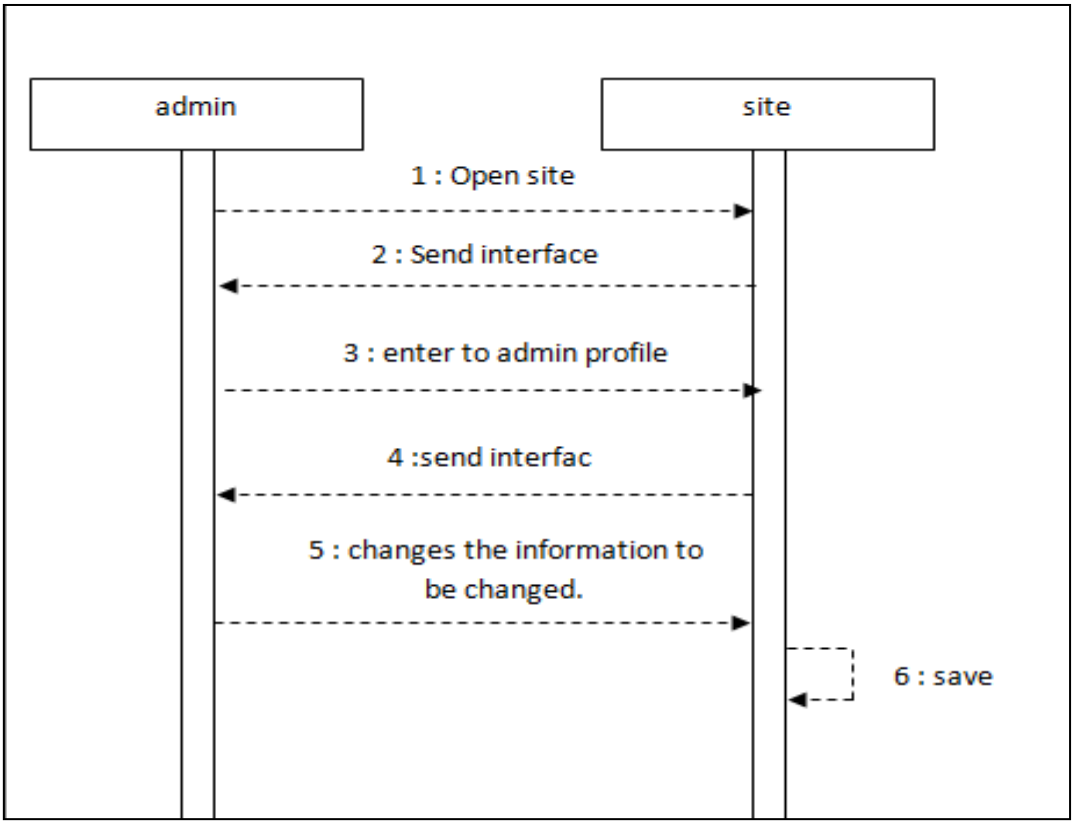

Figure 16:sequence diagram of Information change status

d. Ticket date change status:

The customer requests the information that he previously entered and then changes the date of his ticket at the time he wants.

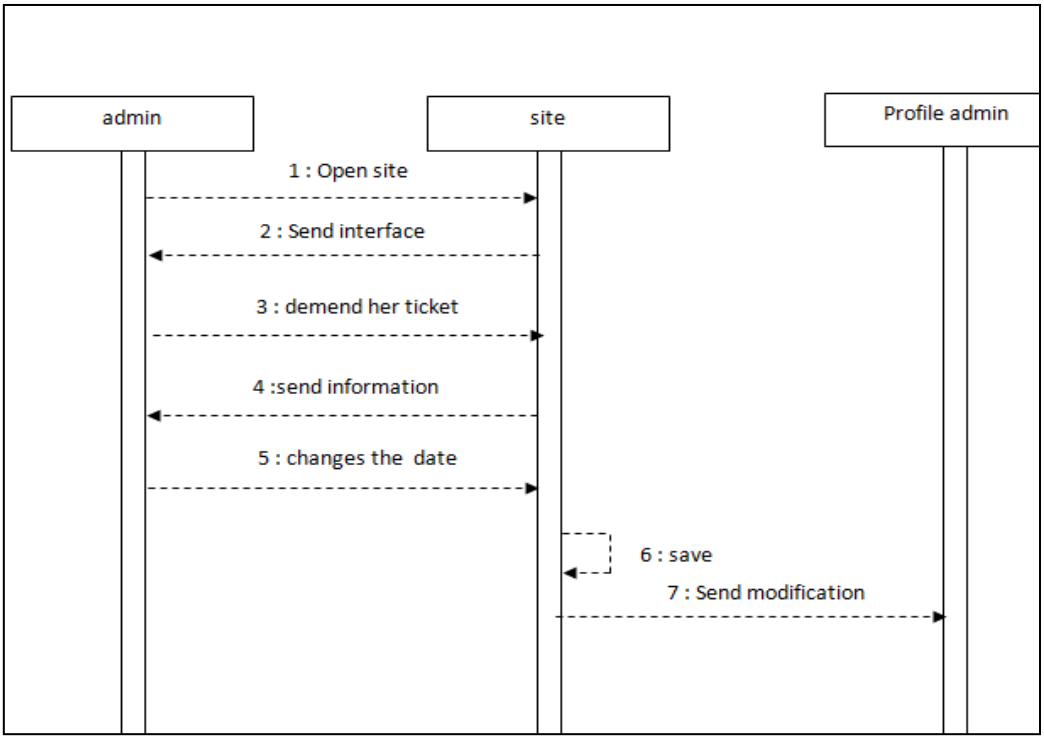

Figure 17: sequence diagram of Ticket date change status

4. Conclusion:

In this chapter we have shown the design phase of our project and we have developed the descriptive UML diagrams of the application

CHAPTER 3 :

REALIZATION

CHAPTER 3 :REALIZATION

1. Introduction :

The implementation phase is the last part of our project and our report. In this chapter we will present the tools used during development and we will illustrate certain features of the application through some screen previews.

2. Work environment :

The working environment is the set of tools, software and language used to implement an IT solution. We start with the material environment.

a. Hardware environment :

For develop our application we use pc has the following characters :

- Processor : Intel® Core™ i3-4005U CPU @ 1.70GHz
- RAM : 4.00 Go
- Type of System : System of exploitation 64 bits.

b. Software environment :

we use the following software :

- **Notepad++ :**

  It is a text editor dedicated to writing the source code of computer programs and works on windows systems. Its goal is have a powerful text editor that does not consume a lot of system resources and supports editing source code texts for a wide range of programming languages.

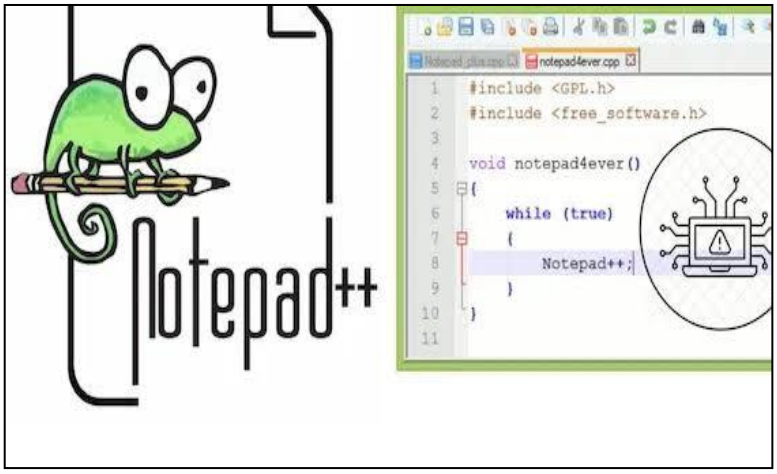

Figure 18:notpad++

- **WampServer :**

  Wamp Server is an important and interesting web application development platform, it includes all the tools and services necessary for the operation of a web application including a MySQL database server, an apache web server and it contains a database management interface is called Phpmyadmin.

Figure 19:WampServer

- **ArgoUml :**

  is a UML modeling tool, allows to easily and quickly create all UML design diagrams

Figure 20:ArgoUml

- **MySQL :**

  MySQL Workbench is MySQL database management and administration software, aimed at database administrators and developers, it enables data modeling and SQL development.

Figure 21:MySql

c. Programming Language :

- **HTML (Hyper Text Markup Language) :**

  HTML 5 is the latest major revision of HTML, it is a markup language designed to represent and create web pages.

Figure 22:HTML

- **CSS :**

  Cascading Style Sheets or cascading style sheets is a language that provides formatting and positioning of elements in the page as well as Bootstrap which is in fact a CSS-based framework.

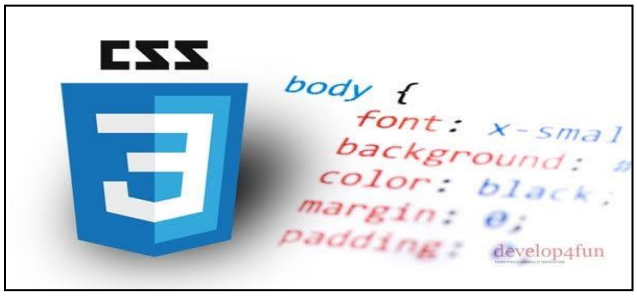

Figure 23:CSS

- **JavaScript :**

  JavaScript is used to control the data entered in HTML forms or also to interact with the HTML document.

Figure 24:javascript

- **PHP :**

  PHP (HypertextPreprocessor) is a language executed on the server side is mainly used to produce a dynamic website and is associated with a database such as MySQL.

Figure 25:PHP

- **Bootstrapping :**

Bootstrap is a set of tools useful for creating websites and Web applications, contains HTML and CSS codes, forms, buttons, and other interactive elements, as well as JavaScript extensions.

Figure 26:bootstraping

3. Application description :

a. Auciel page :

The page has the header and body and footer the header of page as :

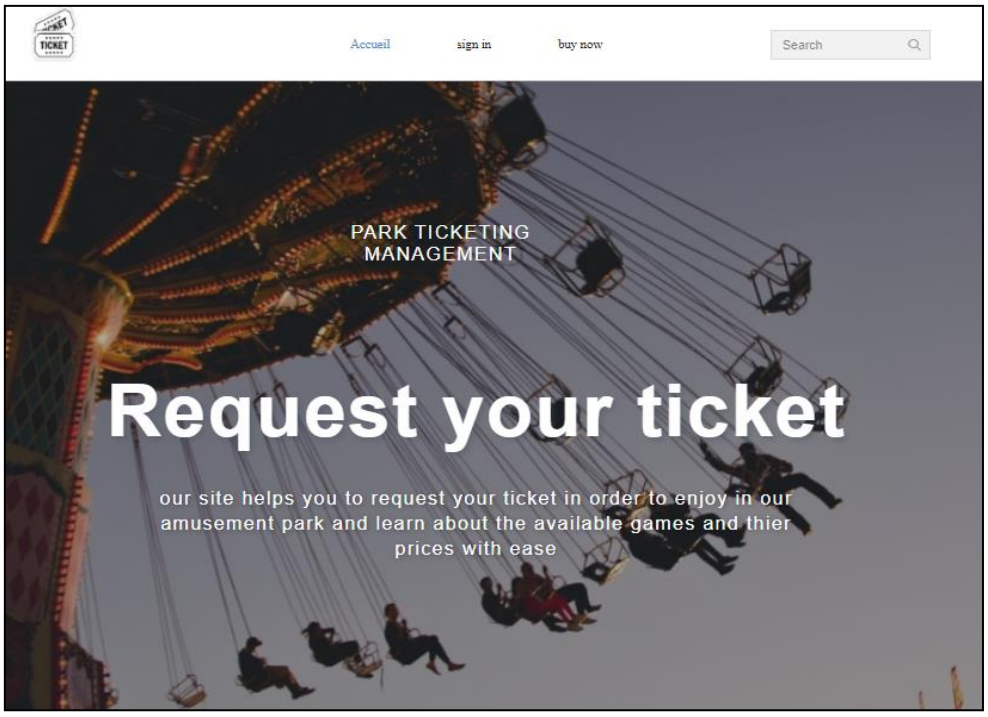

Figure 27: the header of auciel page

And the body has a slide contien the information of our games all is show in this picture :

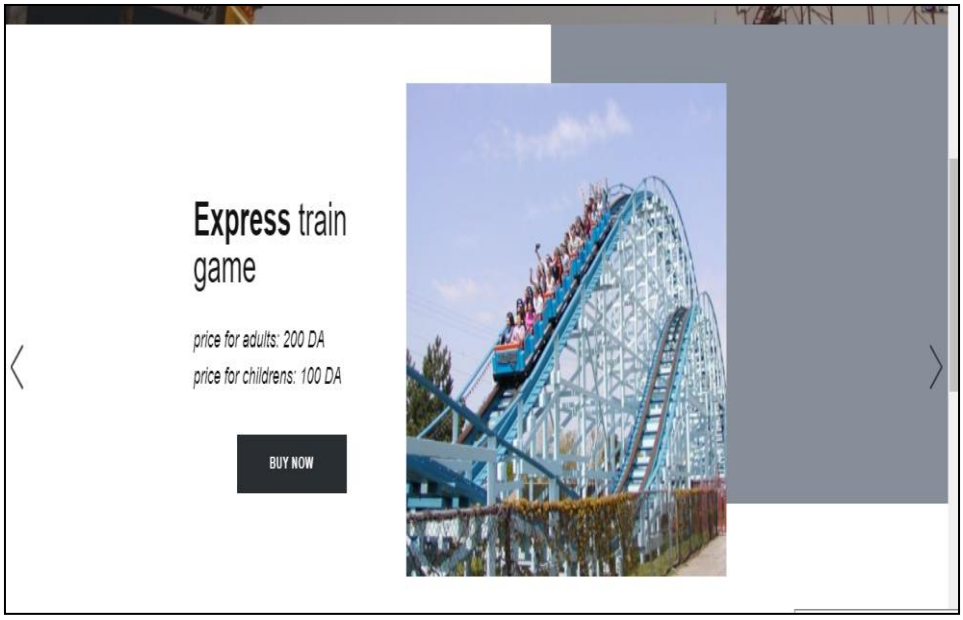

Figure 28: the body of auciel page.

And finally the footer as following :

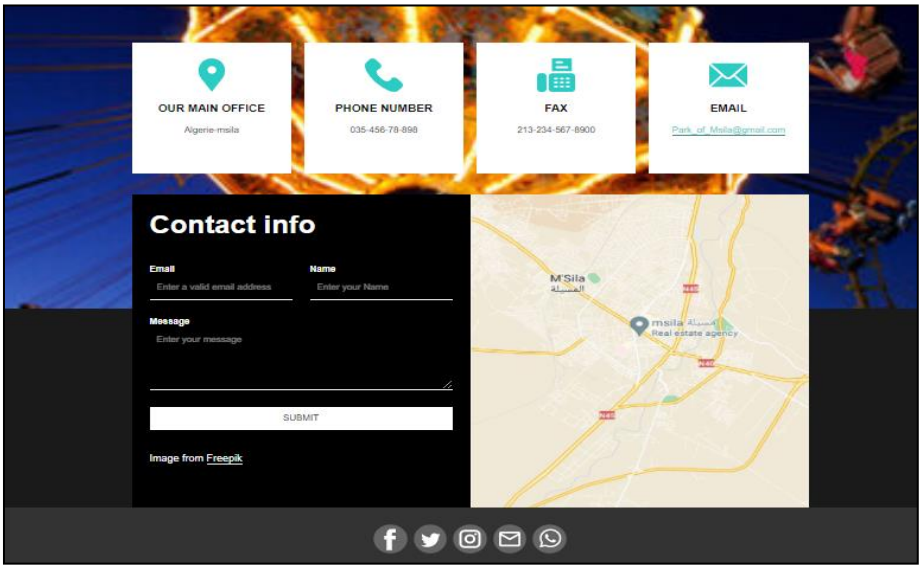

Figure 29: the footer of auciel page

b. Login :

Admin login to the admin profile by entering the admin user and the password as shown in the following image :

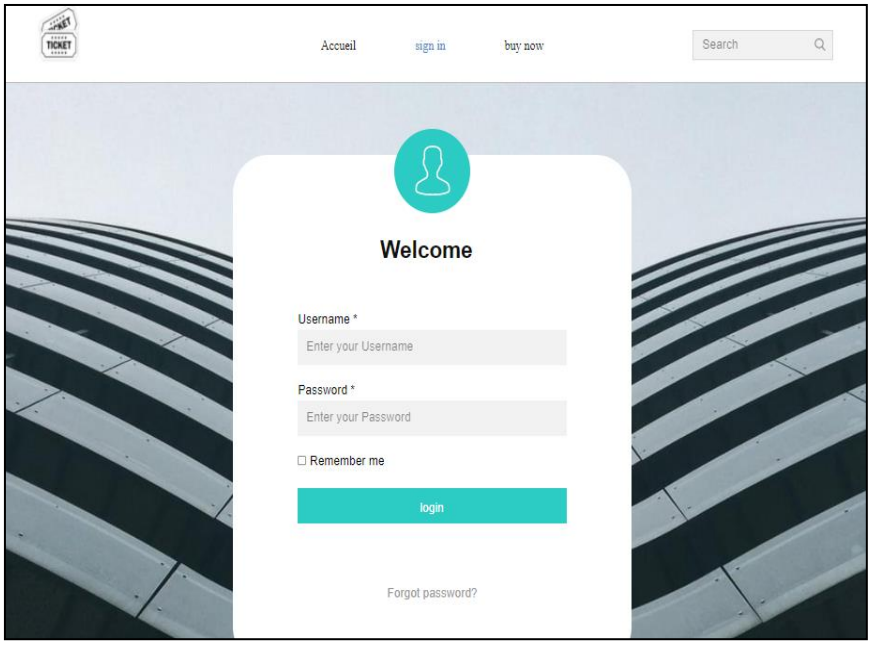

Figure 30:login page.

In the status of forgetting the password, the user can rest the password by pressing the lost password to be directed to the next page in order to search for his account as in the following picture :

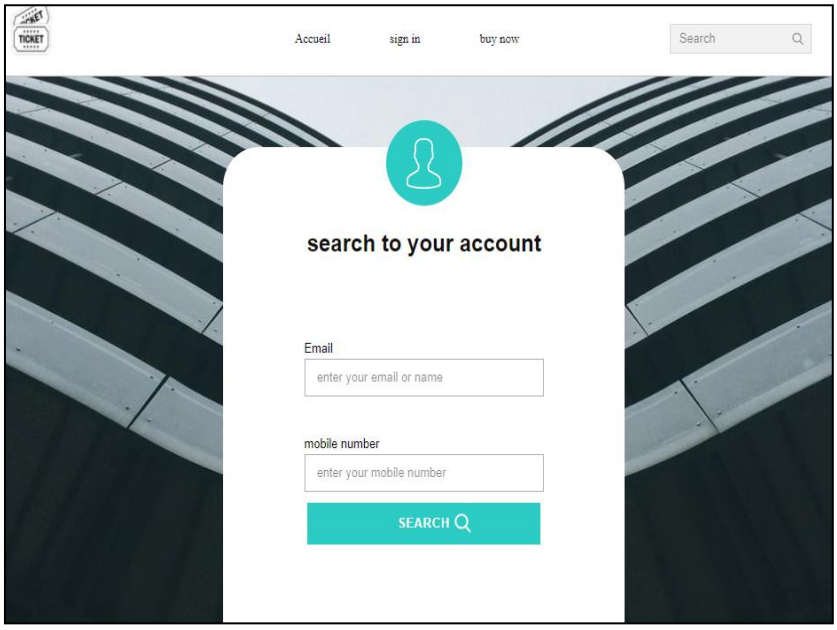

Figure 31: search to the account page.

After that enter the new password :

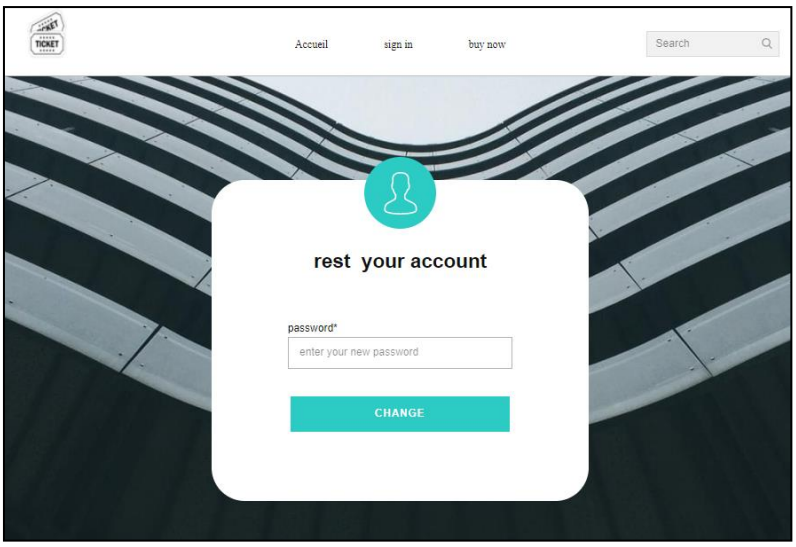

Figure 32: rest password page.

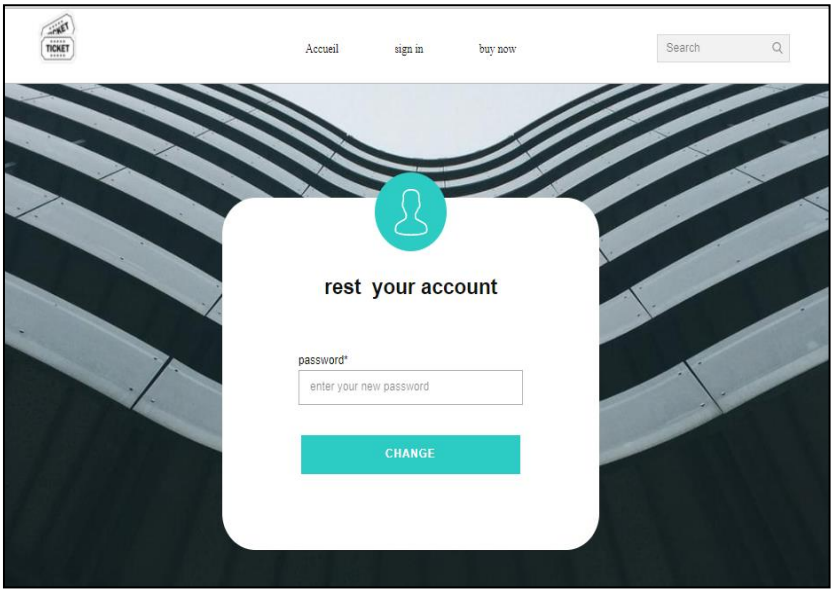

Figure 33:rest the account.

c. Admin profile :

The admin profile as shown in the following picture :

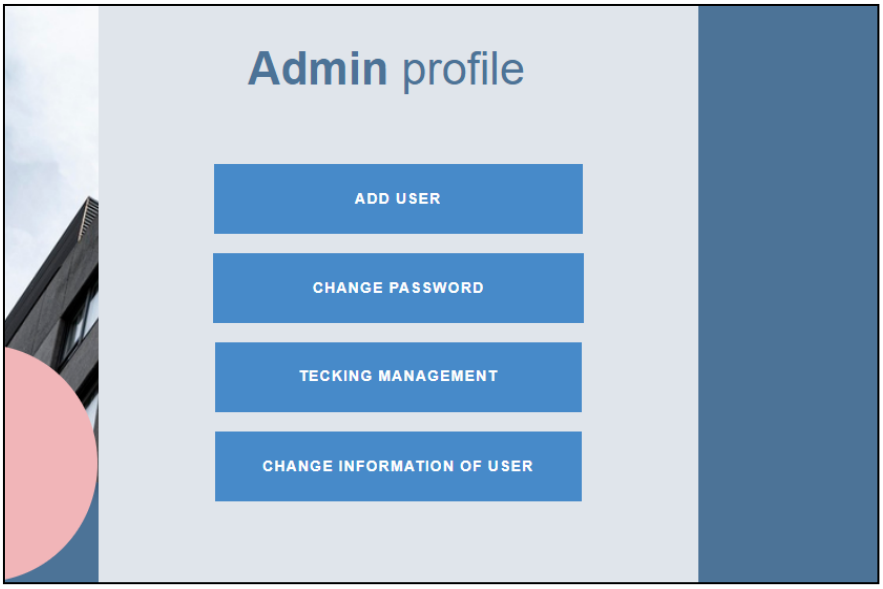

Figure 34: admin profile page.

He can Add user as shown in the next picture:

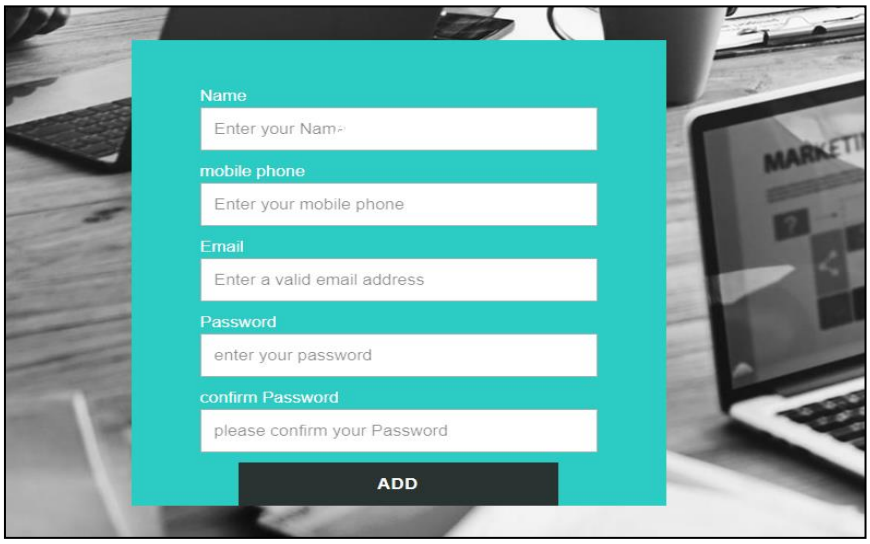

Figure 35: add user page.

d. Manage ticket :

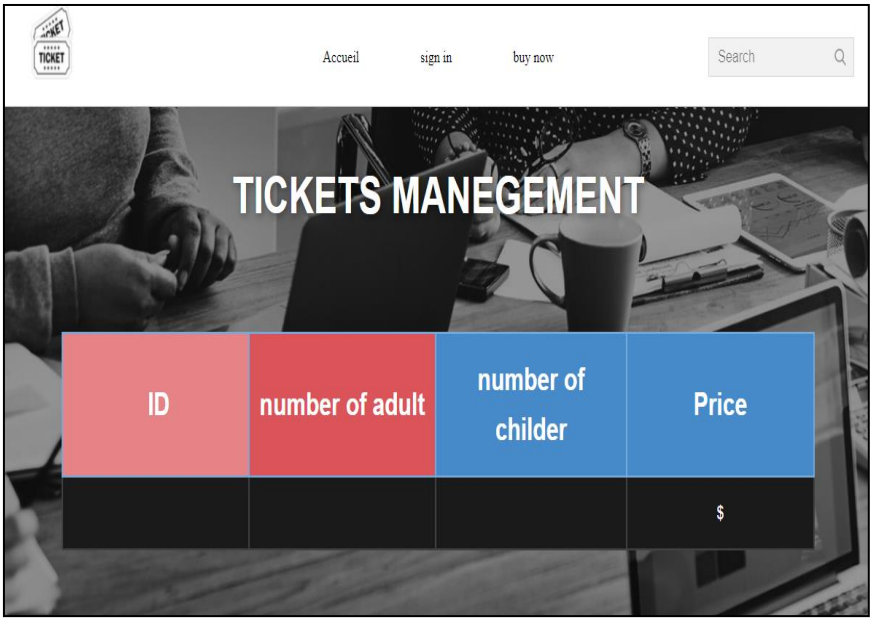

Figure 36: ticket manage page.

e. Buy now :

The client enter to buy now after that put the information and buy as following picture :

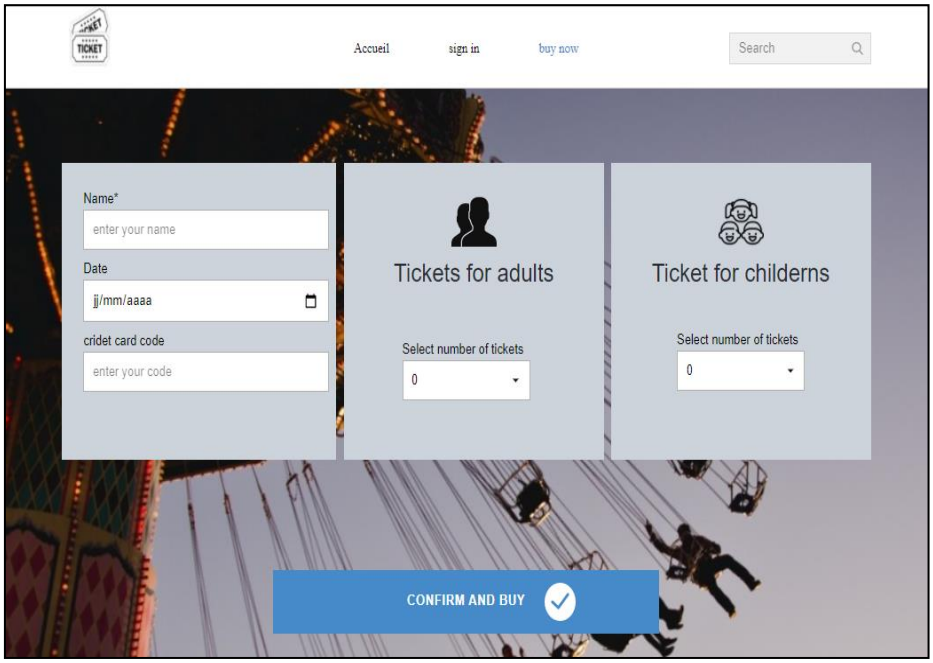

Figure 37: buy now page.

4. **Conclusion:**

In this chapter we explained the environment In which we developed our application hardware and software in addition programming languages used. We also made screenshots showing the general appearance of our site.

General conclusion:

Work on the web application has increased, especially on business applications because this is one of the motivating and important areas. In our brief, we introduced the Development of a web application for park ticketing management In this work we tried to develop a web application for the management of parking We have made it easier for the user to book his ticket only while he is at home, and the park official can manage ticket matters only from the computer screen, and this will facilitate all operations in the future

In the first chapter, we gave an overview of what web applications are. In the second chapter, we represent the design phase, The third chapter was show the realization.

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Abstract:

Work has increased on the Web application, especially on business applications, because this is one of the stimulating and important areas in our brief. We have provided a web application to manage park tickets, facilitate the ticket sales process, facilitate the process of controlling the park, and all that the park owner or customer needs, so we will work to improve performance to expand the functionality of the application. As much help as possible and hopefully in the future the web application will be extended and made available to developers and to improve and add new features

Résume :

Les travaux se sont intensifiés sur l'application Web, notamment sur les applications d'affaires, car c'est l'un des volets stimulants et importants de notre mémoire. Nous avons fourni une application Web pour gérer les billets du parc, faciliter le processus de vente des billets, faciliter le processus de contrôle du parc et tout ce dont le propriétaire du parc ou le client a besoin, nous allons donc travailler pour améliorer les performances afin d'étendre les fonctionnalités de l'application. Autant d'aide que possible et, espérons-le, à l'avenir, l'application Web sera étendue et mise à la disposition des développeurs et pour améliorer et ajouter de nouvelles fonctionnalités.

الملخص:

لقد زاد العمل على تطبيق الويب ، وخاصة في تطبيقات الأعمال ، لأن هذا أحد المجالات المحفزة والمهمة في موجزنا. لقد قدمنا تطبيق ويب لإدارة تذاكر المنتزه ، وتسهيل عملية بيع التذاكر ، وتسهيل عملية التحكم في المتنزه ، وكل ما يحتاجه مالك الحديقة أو العميل ، لذلك سنعمل على تحسين الأداء لتوسيع وظائف التطبيق. أكبر قدر ممكن من المساعدة ونأمل في المستقبل أن يتم توسيع تطبيق الويب وإتاحته للمطورين ولتحسين وإضافة ميزات جديدة