BRD Document

Deportes.com

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Introduction

Executive summary

We have up to 43 sports clubs in all Egyptian governorates, Also there are more than 20 athletics events which are held in Egypt monthly, and almost Egyptian teams or individual players in different sports participate annually in more than 50 various global competitions. On the other hand, people are very busy with their lives, work and their living conditions as they are spending a lot of time in the way to go home because of the traffic jam, So, they don't have enough time to search about sports news or sports events which can be shared and so they start to ignore about their health care or entertainment, that's why Deportes is here.

"Deportes" is a website which provides the users all information about the sports activities in the Egyptian sports clubs, it also Offers notifications about any athletics events, it shows news about sports tournaments.

Document Overview

This document introduce "Deports" website study plan. It introduce general description, technical description, development plan, operation plan, cost analysis and marketing study.

Business Objectives

- Offers all sports in all Egyptian clubs.
- Offers any Athletics events and sports Tournaments.

- Let you leave any feedback or comments about any club or event.
- Makes communication between users and clubs more easy.
- Build a new large sporting community

Background

Introduction

Nowadays people are very busy with their lives, but they must not forget about their health and body Organized, well-structured youth sports and on-going physical activities can provide many benefits for children and adolescents. Positive experiences that sports and an active lifestyle bring play an important role in a young person's life . Playing a sport requires a lot of time and energy. Some people may think this would distract student-athletes from schoolwork. However, the opposite is true. Sports require memorization, repetition and learning — skillsets that are directly relevant to class work. Also, the determination and goal-setting skills a sport requires can be transferred to the classroom. People mostly don't have time to search for nearby places for their children to practice sports in , that's why we provide this service of collecting all needed information so that people wont waste time in collecting these information.

Services

The website provides a lot of services. <u>first</u> of all you can search through the available sports to pick one if you don't know what exactly do you want to practice.

Example for these sports:

- **Tennis** is a racket sport that can be played individually against a single opponent (singles) or between two teams of two players each <u>(</u>doubles). Each player uses a tennis racket that is strung with cord to strike a hollow rubber ball covered with felt over or around a net and into the opponent's court. The object of the game is to maneuver the ball in such a way that the opponent is not able to play a valid return. The player who is unable to return the ball will not gain a point, while the opposite player will.

- **Football** is a team sport **played** between two teams of eleven players with a spherical ball. It is played by 250 million players in over 200 countries and dependencies, making it the world's most popular sport The game is played on a rectangular field called a pitch with a goal at each end. The object of the game is to score by moving the ball beyond the goal line into the opposing goal.

- **Handball** is a team sport in which two teams of seven players each (six outfield players and a goalkeeper) pass a ball using their hands with the aim of throwing it into the goal of the other team. A standard match consists of two periods of 30 minutes, and the team that scores the most goals wins. There is no protective equipment worn while playing.

- **Swimming** is an individual or team sport that requires the use of one's arms and legs to move the body through water. The sport takes place in pools or open water (e.g., in a sea or lake). Competitive swimming is one of the most popular Olympic sports ,with varied distance events in butterfly, backstroke, breaststroke, freestyle, and individual medley. In addition to these individual events, four swimmers can take part in either a freestyle or medley relay. A medley relay consists of four swimmers who will each swim a different stroke. The order for a medley relay is: backstroke, breaststroke, butterfly, and freestyle. Swimming each stroke requires a set of specific techniques; in competition, there are distinct regulations concerning the acceptable form for each individual stroke

   .There are also regulations on what types of swimsuits, caps, jewelry and injury tape that are allowed at competitions. Although it is possible for competitive swimmers to incur several injuries from the sport, such as tendinitis in the shoulders or knees, there are also multiple health benefits associated with the sport.

- **Rowing** is the act of propelling a boat using the motion of oars in the water, displacing water, and propelling the boat forward. The difference between paddling and rowing is that rowing requires oars to have a mechanical connection with the boat, while paddles are hand-held and have no mechanical connection. There are also a lot of places In Egypt to learn rowing as the nile is the best place to row.

And many other sports will be available with a neat description and all needed information as if it's a single or multiple player sport so that a parent can know what personal skill this sport will teach his/her son/daughter.

- **After** the user choses what sport he wants to know more about, the website will prioritize the places by location to save energy and time wasted to go faraway places because you don't know the place near you.

- **Then** you can add a filter to rearrange them to find the most suitable price for you.

- The user can find feedbacks to each place as if the trainers are good enough, how the playgrounds are and the management and organization there. He can also add his own experience to help other users.

System Description

What is Deportes?

"There is no single element of the coaching process that is more important than communication".

The importance of communication in sports cannot be understated as it's said to be the key to success in both the sport and business world. Being able to communicate effectively is not limited to how your athlete is feeling. Effectively conveying the goals of the team for the season is also a critical aspect of communication. We have up to 43 sports clubs in all around governorates of Egypt, Also there are more than 20 athletics events that are held in Egypt monthly, and almost Egypt participates annually in more than 50 sports competitions in individual and collective games. Therefore, Deportes will provides a large wide sports channel communication.

Sports Clubs:

The system provide the users all information about the sports activities which they want to practice as when the user choose a certain sport such as (Swimming, Tennis,..etc), it leads him to the Egyptian sports clubs which is nearby place to his location and explains in details all the aspects of this sport in each club such as the Membership cost of the payment, the time of the training sessions, the number of training levels, the booking method of the training and the championships achieved by these Egyptian club in that sport.

Athletics Events:

Sports teaches you character, it teaches you to play by the rules, and to know what it feels like to win or lose as it teaches you about life. The people who care about attending the sports or athletics events in order to join new groups, can know by getting weekly notifications about the nearby events with all its details (Start date of the event, expected duration, location, vision, winning Prizes) such as Cairo International Marathon, Cairo Runners Marathon, Racing Competition with bicycles.

Sports Tournaments:

Football is Football and talent is talent, but the mindest of your team makes all the difference, Like as Deportes that will update with all Egyptian sports competitions and championships results to be aware of all sports news, and also provide the users the way to share this competitions.

Feedback:

The user can let any feedback about the places "clubs" and writing his opinion about this place and which place is better in each sport.

System Architecture:

Deportes provide huge amount detailed information about all Egyptian Sports clubs, its available trainings and the current athletics events.

The system offers the service and the contents to both mobile and desktop users via web –based or dedicated mobile software.

The system consists of following modules: (1) Storage, (2) Data Processing, (3) Data Analytics, (4)Indexing, (5) General User Area, (7) Supervisors Area, (8) Deportes Authority Area, (9) System Administration Area, (10) Reporting, (11) Security, (12) CloudService:

Storage:

- System Storage for System configuration and user information.
- Archive Storage for historical changes, deleted contents and old logs.
- Indexing Storage to Support full text search engines.
- Analytics Storage to Store outcomes of data analytics module.
- Core Storage for all Egyptian sports clubs information, athletic events details and user interaction.

Data Processing:

Data processing module is responsible on providing all data related services like data modeling and correction, data transformation, data classifier and multimedia processing.

Data modeling and correction is required to understand the textual material based on the related language model, this will allow better finding the data of events or clubs and improve the quality of sports clubs' material.

Data transformation is required to allow import and export of different data format. The system supports common data formats supported by common data processors applications.

Multimedia processing is required to enhance the quality of multimedia contents like images, audio and video. It converts multimedia contents to unified format.

Also, this service is required to detect some features required by data classifier service. Data classifier is required to classify the contents which are important to avoid non-appropriate material.

The classifier uses information retrieved by data modeling and image and video processing services.

Data Analytics:

Deportes has huge amount of contents which includes Egyptian Sports clubs data about trainings, Membership cost, trips and activities, athletics events, Egyptian sports competitions and championships, user interaction and logs. These modules are important to study the contents and produce very useful result.

Basically this module support following data analytics:

- Similarity analysis to determine similar data contents of events or competitions.
- This analysis is important to avoid generating sports clubs having similar.
- Quality analysis to study the correctness of sports clubs or events or championships contents based on user interaction.
- High quality contents will be published to all users. Low quality questions are used only by their authors and related users.

Security analysis to study user behavior to avoid future attacks. Basically this analysis logs to study user behavior and the Statistical analysis to produce a set of statistical studies regarding contents and users interaction.

Indexing:

This module is responsible on indexing textual contents to allow internal full text search queries. Full text search is used by final users to find certain contents. Also, it used by other modules like data processing to locate contents in a fixed time regardless the overall contents size.

General User Area:

This module provides user with main system activities like:

- searching by more than one filter such as location filter, name of the club, name of the training, name of the Egyptian or Olympic or African championship to improve the quality of getting information by making the website more friendly user.

- Reviewing & Rating for all sports events/Organizations such as International Marathon, Weekly bicycles practicing events, and also users have the ability to write comments to suggest improvement or easier way for any fault that happened in a specific event or to ask for more information about specific nearly competition or specific sporting training which is supported by any club.

- They can watch African or Olympic Competitions online on the website as we support more videos that documented the events.

- Users can view last competitions or Olympic championships history, its results and winning team. It is not allowed for website users and visitor to book online for attending a specific event or a sports competition, as we just guide them with the way which they can book a ticket from such as Fawary, Ticket Marche.
- Users can edit their profiles and view other user's profiles.

    General system support martial are published to help users. However users can communication with system operators to report issues or to get a direct support.

Supervisor Area:

This module is dedicated for system operators. System operators are responsible on managing the system operation and contents. System operators, can access all system contents, view statistical reports, and provide direct support to users.

Deportes Authority Area:

This module view the website authority information like general information, events plan, trainings and activities contents, competitions and championships. Users with permission (Owners) can edit the information, manage members and change their roles.

System Administration Area:

This module is dedicated for system administrators. System administrators are responsible for system management, configuration, backup and solving technical issues. System administrator can view system status, activities and trainings status, online Championships videos, logs and other system status and measures.

Reporting:

This module is responsible on providing many business and technical reports like following:

- Technical Reports:
- Resources usage, it shows the usage of storage, CPU and bandwidth.
- Users, contents and logs statistics.
- Administrators and operators activities statistics.
- Business Reports:
- Available sports topics, important events and supported languages.
- Statistical report on user contribution per region, age segment, authority and more.
- Usability report offer information about user behavior inside the system.
- Contents quality report studying published contents vs. available contents.

Security:

Security module is responsible on user authentication and communications security. User can register/login using internal accounts or via their phones or common social accounts. The portal access is made using https protocol in order to secure the communication. Security module is also, responsible on managing the permissions and roles. Users can be guests, logged users, Deportes authority owners and developers. Security module is also, responsible on detecting the threats and preventing data theft. The system is tested against common attacks using known penetration testing tools. Data theft is prevented using various data protection techniques.

Cloud Service:

This module provides all system feature through set of APIs. APIs are required by mobile applications and other software interfaces. External developers with permissions can use those APIs to build additional applications with different flavors.

System Features

Determine the sport

User can choose sport which he interested in. The user can choose the place where he would trainee, know the cost of each sport, knowing the best trainer in each sport, knowing the sport supplies which this sport needed.

User can know the plan of the sport he plays. The user can know the Admission requirements of the required sport.

Begin the sport

Trainer can start the training plan of the trainee. He/She can invite specific trainees or allow anyone to join the group.

Sport process security

The sport security model enables you to control access to process objects.

Wikipedia Integration

Athletics can assign Wikipedia page for every kind of sport. User can refer to that link to choose that kind in case he needs.

User Management

User must register to the system before they can determine the sport. Athletics can construct the groups manually by adding participant's ids one by one. Alternatively, user can construct empty groups and ask participants to join. Finally, User can construct a group from the participant who became heroes to encourage the new athletes.

Trainer can request additional identification from trainees like player id. Those identifiers are important to map users to their real identity inside the club.

Simply the trainee can export the certificate of any exam or sports tournament to encourage a new player.

User Profile

User are either trainer or trainee. Trainer contribute to the system by connecting with the trainees and advices them to be better in their sport.

Users profile show all trainee activities and his challenges in sport. Trainee can view all related certificates in all sports, he has played.

User Rating

The system evaluates both trainer and trainee activities. Trainees are evaluated by feedback of their trainers. Trainers are evaluated based on training and vision for them. Trainees may refer to their evaluation records as reference in their resumes.

Certificate Generation

Trainer can upload the certificates of the trainee to encourage other trainees or beginners. The certificate can be downloaded in PDF format with digital signature. The system offers multiple templets for the certificates and allow partial editing of the contents.

Sport Authority

Clubs, training places and Gyms can register special accounts called training authority. Trainers and trainees can join those authorities in order to participate in their official

Sport plans

Trainers Authorities admins can prepare their training plans for all sports. This plan helps trainees to be better in their sports. The plan determines the days of training, the number of hours and the food they should take continuously.

Choose, play and sharing certificate

The system allows user to determine the sport. User can know the club which is close to him. User can determine range of the cost to these sports and determine

the shopping mall where sells the sport supplies. User can know what the sport supplies he needs. the User can choose the trainer who would training with him.

Cross platforms support

Sport cloud system is offered via web and mobile interface. The web interface allows responsive design support either desktop or mobile interface. Mobile application is offered for Android, iOS and windows mobile.

Juniors Mobile App

This application is provided for Athletes and sports enthusiasts. It offers choosing service in all kinds of sports. Sports arranged according to cost and nearby places. User should determine its favorite sport in order to view all available places, know the sport supplies and start the sport. Using web or mobile application parents and trainers can follow their kids and trainees.

System Development and Operation

In this project it's a website so the software development has a life cycle (SDLC) is aconceptual model, used in project management, to describe the stages and tasks involved in each step of a project to write and deploy software . The system development is performed using Agile methodology. Agile is a much more utilized SDLC approach. Agile is an SDLC model that approaches software development in incremental but rapid cycles, commonly referred to as sprints. Each sprint builds upon the last. These sprints compose the project quickly with higher flexibility, as new changes in scope and direction can be implemented in each sprint. Agile can mean less time spent in the planning phases, and a project can diverge from original specifications. Documentation is crucial, regardless of the type of SDLC model for a given application and is usually done in parallel with the development process.

In general, the SDLC process follows these phases

- Evaluate the existing system.

- Define the new system regimens.

- Design the proposed system.

- Develop the new software.

- Put the system into use.

- Monitor the software.

The first version of the system should take three months(Development Plan),Deadline in february 2019 expection finals.

Development Plan

1. Study Requirements:

Website requirements are a list of necessary functions, capabilities, or characteristics related to your website and the plans for creating it. There are several types of requirements that may be defined during the process that come together to focus and prioritize the project plan.
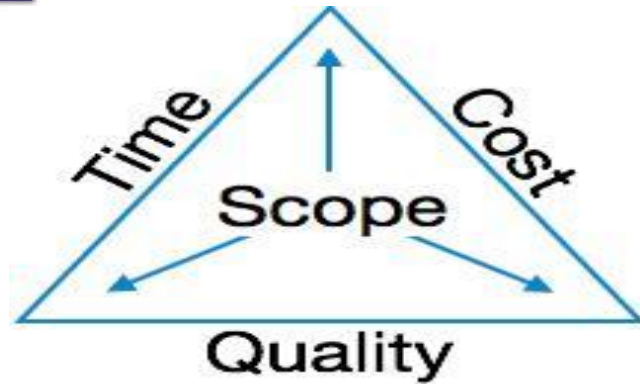
Types of Requirement:
1. Business Requirements
2. User Requirements.
3. Functional Requirements.
4. Quality of service Requirements.

2. Management Planning:

Software development is a kind of all new stream in world business and there's very little experience in building software products.

Most software products are tailor made to fit client's requirements. The most important is that the underlying technology changes and advances so frequently and rapidly that experience of one product may not be applied to the other one. All such business and environmental constraints bring risk in software development hence it is essential to manage software projects efficiently.

The image above shows triple constraints for software projects. It is an essential part of software organization to deliver quality product, keeping the cost within client's budget constrain and deliver the project as per scheduled. There are several factors, both internal and external, which may impact this triple constrain triangle. Any of three factor can severely impact the other two.Therefore, software project management is essential to incorporate user requirements along with budget and time constraints.

3. Preparation:
The first design must be ready.

4. Research
The whole vision in research are (Theory, Programming, Industrial Project, Expermentation).
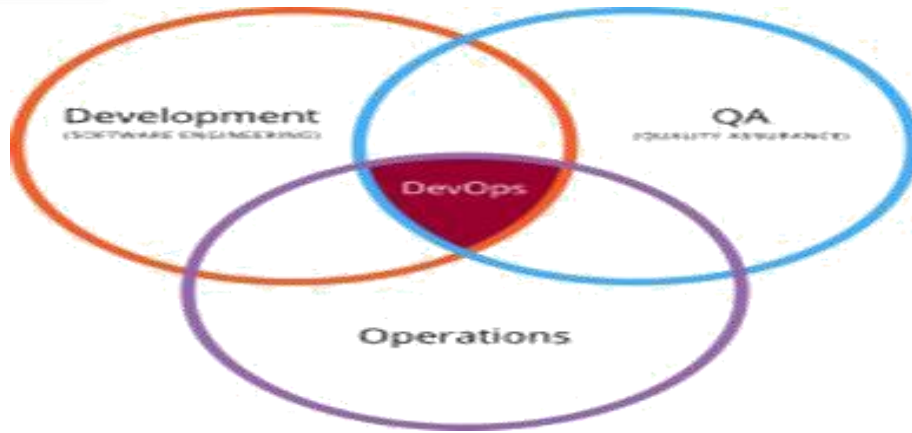
5. Final Release
A release is the distribution of the final version of an application (Operation Plan)

The goal of Development Operations is to shorten the systems development life cycle while also delivering features, fixes, and updates frequently in close alignment with business objectives. The Development Operations approach is to include automation and event monitoring at all steps of the software build.

As the sports industry grows increasingly larger and more complex, it requires the skills and acumen of a growing number of experts trained in all aspects of sports management.

Team

Team	Role	#
Development Team	Team Leader	1
	R&D Engineers	2
	Web Developers	4
	Mobile Developers	4
	Configuration Management Engineer	1
	Quality Assurance Engineer	1
Testing Team	Team Leader	1
	QC Member	2
Maintenance Team	Team Leader	1
	Web Developer	1
	Mobile Developer	1
	QC Member	1

Tools

Operation	Recommended Tool
Source Control and Versioning	GitHub/Git, Bitbucket/Git …
Tasks and Issues Tracking	GitHub/Issues/Zenhub, Bitbucket/Issues/JIRA …
Structured Database	MySQL, PostgreSQL …
Unstructured Database	MongoDB, HIVE, HBASE …
File System	Hadoop …
Data Analysis	Spark, Pandas …
Data Indexing Server	Elasticsearch, Solr …
Programming Languages	Python, C/C++, PHP …
Operating Systems	Linux (Centos/Ubuntu) …
Documents	Google Docs …
Messaging, Authentication, Mapping	WSO2, Firebase …
Host Management	WHM/cPanel (Commercial, Single License)
Planning	MS Project (Commercial, Single License) …
Software SRS/SDA/SDD	Visio (Commercial, Single License) …
UX Design	Adobe UX Tools (Commercial, Single License) …

- Infrastructure

   There are hosting servers that support php, MySQL like (xampp, lamp, mamp...etc).

References

1- information about sports:

- https://en.wikipedia.org/wiki/Rowing
- https://en.wikipedia.org/wiki/Swimming_(sport)
- https://en.wikipedia.org/wiki/Association_football
- https://en.wikipedia.org/wiki/Rowing

2-https://www.muhealth.org/conditions-treatments/pediatrics/adolescent-medicine/benefits-of-sport