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Course name: Decisions Support Systems

Project Title: Sports Recommendation Expert System

Problem definition

Sports are a crucial part of user's growth and development. They help in the development of mental health and physical fitness of the body.

Through participation in sports and games, users gain various skills, experience and confidence that are helpful for developing their personality, so we made a system that recommends sports for users.

Firstly, Users sign up in a sport system filling a form with their personal information (name, phone number, email, weight, height ...etc.)

Secondly Users fill a medical form If the user suffers from any chronic diseases

After all of that system recommends proper sports for the user according to data.

System requirements

System Requirements is divided into two sections:

which is

- Functional Requirement
- Nonfunctional Requirement

Functional requirement

- Users Sign up in the system
- Recommendation occurs
- Users select the desired sport
- Users can cancel the selected sport

The user can sign up to this website using Facebook or email. He will get a verification code on his phone number or email to activate this account.

Recommendations occurs depending on data that the user will enter then the user will select the desired sport if that user has more than one option (football, basketball. etc.)

Also, the user can cancel his participation any time he wants just open the system and cancel his/her participation.

Non-functional requirement

- Response time
- security

After that, if he wants to continue and sign up, sign up page will load in 4 seconds and show him a form to fill.

Email and phone number are checked in the database to make sure they weren't used before.

If they weren't used before, he will receive a verification mail with code and SMS on his phone and email.

If something goes wrong these verification messages will be sent again. Then, the website will check if the two codes are correct or not. If they aren't, he will be asked to enter his email and phone again.

Then, the website will load in 5 seconds with security page to enter his number to confirm the purchase then the sport.

Domain

A combination between two fields

- Sports field
- Medical field

Domain expert

- Captain
- doctor

Domain task

According to (weight, height, age, etc.) a recommendation occurs to a specific sport to users within medical field in case the user suffers from any chronic diseases the system will recommend an appropriate sport to him.

Expected Knowledge user

- Professional
Someone who previously participate in a specific sport.
- User
First time to participate in sport or amateur.

Expert system

- 1-Based on knowledge
Based on entered data by users and systematic data
- 2-data must be complete to produce an exact result
For example
If some data are missed football will be recommended
instead of a basketball.
- 3-human capable of solving the problem
- 4-system not based on equation or algorithm as conventional system as expert system based on conditions and rules.