

Athlete Tracking Software Development Project

Ömer Çevrük 210706045

Project Overview:

The Athlete Tracking Software is designed to provide a solution for sports schools to manage their operations. The system has four primary modules:

1. Student Tracking Module
2. Payment Module
3. Athlete Development Tracking Module
4. Reporting Module

2. Research and Planning:

Technology Stack:

- Frontend: Razor Pages, HTML5, CSS3, JavaScript
- Backend: ASP.NET Core MVC
- Database: PostgreSQL
- Additional Tools: Neovim, omnisharp(lsp)

Justification for technology choices:

ASP.NET Core MVC:

- Provides a clean separation of concerns through the Model-View-Controller pattern
- Excellent integration with Razor Pages for creating dynamic web pages
- Cross-platform compatibility

PostgreSQL:

- Open-source and cost-effective(free as in cost and as in freedom)
- Excellent performance for complex queries
- Rich feature set including JSON support and full-text search
- Strong community support and extensive documentation
- Built-in support for geographical data and custom data types

Razor Pages:

- Good for rapid development of CRUD operations
- Built-in support for client-side validation

Wireframes:

I created basic wireframes using excalidraw.

○ ○ ○ Login

Login

Username

Password

☒ Remember me

Sign in

Student registration

Student information

First Name

Last Name

Date of birth dd/mm/yyyy

gender

Password

Password repeat

Parent information

First Name

Last Name

Date of birth dd/mm/yyyy

relation

Phone Number

phone number 2

Email address

password

password repeat

Address

street address

city

district

postal code

Sport registration

Branch

sport type

cancel

Submit

personal
information

First Name

Last Name

Email

Phone number

Password

Confirm password

professional
information

specialization

hire date dd/mm/yyyy

Submit

Athlete managment

<UserName>

this week

this month

this year

Total students 314
+7%11

Revenue TL 1800
+7%11

Active instructor 13
+1 this week

quick actions

Add student

create session

Add instructor

View reports

Dashboard

child 1

Next session

Swimming training

17:00-18:00

Next payment

18.000 TL

December 23 17.30pm

Attendance

30

%25

this month 3 missing

Coach

Ali mehmet

Swimming coach

Last comment

-Very cool keep going on

Physicals

Lenght : 120 cm

Weight : 190 kg

+ 1 from last measuremtn

+20 from last measurmeant

Notifications

Lorem ipsum doler sit amed

Payment

child 1



Payment details

Total amount 12.000 TL

Paid amount 6.000TL

remaning amount 6.000TL

Missing payment

23/9/2002

3.000 tl

Payment plan details

Number of installments 4

Plan beginning 9/12/2002

Monthy payment amount 3.000TL

Payment day 23th of each month

Make payment

Payment amount

Payment Method

Due date

Confirm payment

Payment

Customer 1

Payment details

Total amount12.000 TL

Paid amount6.000TL

remaning amount6.000TL

Missing payment

23/9/2002

3.000 tl

Payment plan details

Number of installments4

Plan beginning9/12/2002

Monthly payment amount3.000TL

Payment day23th of each month

Payment Plan

Customer 1

Create payment plan

Number of installments in months

12

payment day (each month)

3

Start date

dd/mm/yyyy

Total amounth

30000TL

Plan status

active

Html pages:

Login

Username

Password

Remember me

☐

Sign in

Personal Information

Professional Information

Athlete Management

Total Students

314

+9.11%

Revenue

TL 1800

+9.11%

Active Instructor

13

+1 this week

Payment Plan

Customer 1

Create payment plan

Number of installments in months

12

Payment day (each month)

3

Start date

dd/mm/yyyy

Total amount

30000TL

Plan status

Active

Dashboard

Child 1

Next session

Swimming training
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18.000 TL
December 23 17:30pm

Attendance

30
9/25
this month 3 missing

Coach

Ali mehmet
Swimming coach
Last comment: Very cool keep going on

Physicals

Length: 120 cm +1 from last measurement
Weight: 140 kg +2.0 from last measurement

Notifications

Lorem ipsum dolor sit amet

Payment

Customer 1

Payment details

Total amount

12.000 TL

23/9/2002

Paid amount

6.000TL

3.000 tl

Remaining amount

6.000TL

Missing payment

Payment plan details

Number of installments

4

Plan beginning

9/12/2002

Monthly payment amount

3.000TL

Payment day

23th of each month

Payment

Child 1

Payment details

Total amount 12,000 TL

Paid amount 6,000 TL

Remaining amount 6,000 TL

Missing payment

23/9/2002

3,000 TL

Payment plan details

Number of installments 4

Monthly payment amount 3,000 TL

Plan beginning 9/12/2002

Payment day 23th of each month

Make payment

Payment amount

Enter amount

Payment Method

Select payment method

Due date

mm / dd / yyyy

Confirm payment

Password

Password repeat

Address

Street address

City

District

Postal code

Sport Registration

Branch

Sport type

Cancel

Submit

Student Registration

Student Information

First Name

Last Name

Date of birth dd/mm/yyyy

Gender

Password

Password repeat

Parent Information

First Name

Last Name

Date of birth dd/mm/yyyy

Relation

Phone Number

Phone Number 2

Email address

Address

Street address

City

District

Postal code

Sport Registration

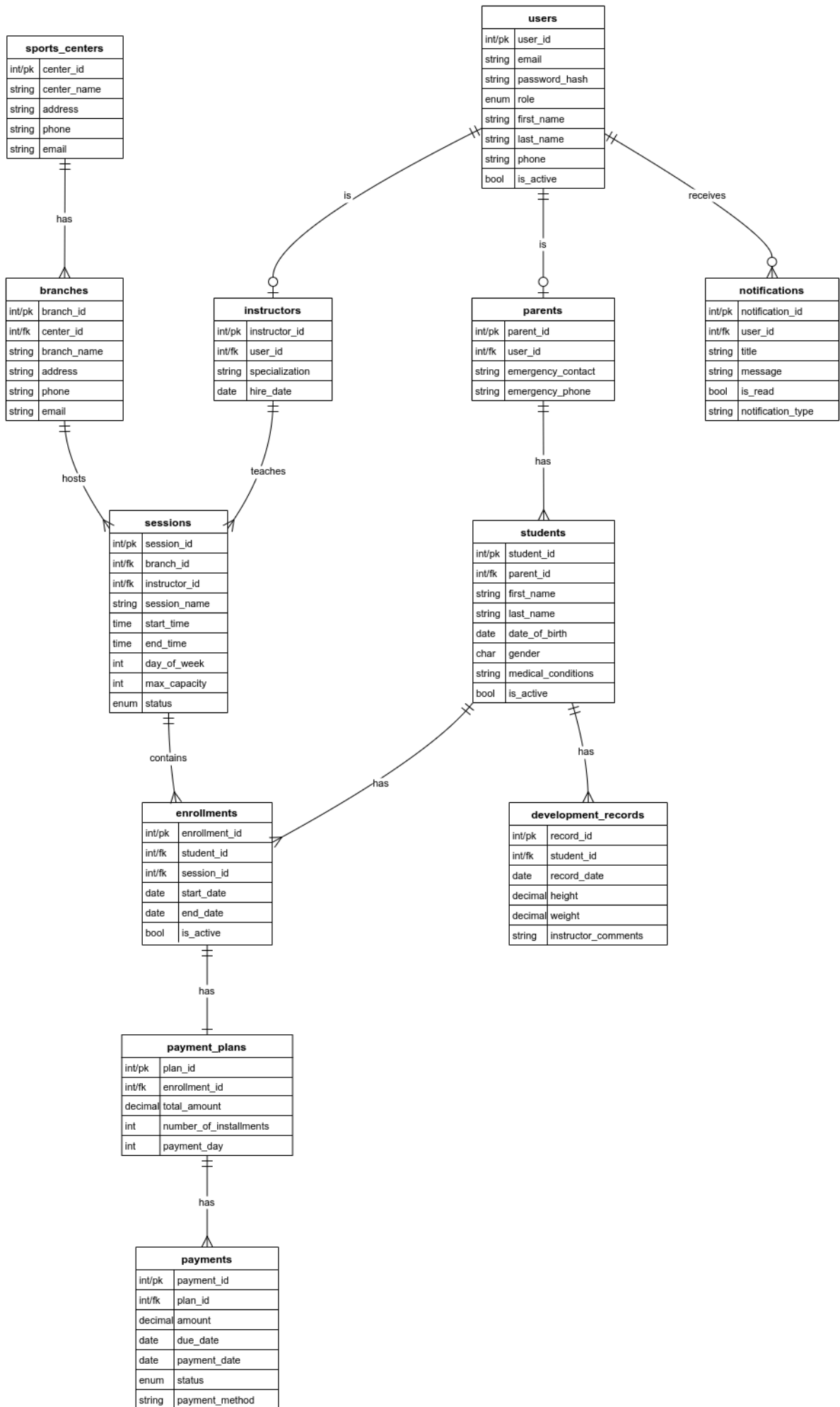
Branch

Sport type

Cancel

Submit

ERD:



High level diagram of the system:

