

## Background Description

Padel tennis can be considered mix of squash and tennis. It is played similar to tennis, but the playing court is surrounded by walls, which the ball can bounce off. In the last couple of years padel tennis has exploded in popularity in Denmark, with only 14 padel courts in 2026, and 610 courts in 2021 [[padel i Danmark i 2021](#)].

In Horsens we have 3 padel clubs. SMASH Padelcenter Horsens is reasonably close to the campus, and they are looking to get more people interested in the sport. They have enlisted the help of a couple of VIA students, who frequented the club.

VIA Padel Club (henceforth VPC) is a new start-up initiative in Horsens by a couple of Padel-loving, industrious students, who wishes to spread the interest in padel tennis to other students.

VPC has an agreement with SMASH Padelcenter about occasionally borrowing a couple of padel. VPC have an arrangement with the SMASH club owner that they can use the courts on various days in various time intervals, when there are otherwise few bookings. VPC is informed about available times a few days in advance.

VPC needs to provide the students easy access to booking a padel court, and they need to be able to easily inform the interested students about available courts, with dates and times.

Given the fact that SMASH also has an interest in introducing more people to Padel, they are initially letting VPC use the courts for free.

## Purpose

The purpose of this project is to make a system which can manage VPC padel court availability management and bookings.

## Description from customer

Below is the initial description from VPC, explaining what they believe they will need.

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Okay, so, the setup is that we have a local padel club, SMASH Padelcenter, and some days they don't have that many bookings for their padel courts, resulting in empty courts not being used. This is typical for some week-days, and during business hours, where all the usual middle-level-managers are working. So, in those

hours, we can use their courts, at the moment for free. We want to set it up so VIA students can use those empty courts and increase the interest in padel.

Right, what do we need? Us VIA Padel Club managers will occasionally be contacted by SMASH that they have available courts on some day in some time interval. For example, they have a couple of courts, so they may email us saying "Courts S2, D3, and D4 are available on the 7<sup>th</sup> of September, from 10:00 to 15:00". The S is for single court, meaning one player plays against another, and the D is for double, so 2 versus 2.

We receive this email, and then we need to add a new daily schedule to the system, so that our players can go and book a time. So, we're working with these daily schedules, consisting of a couple available courts, and time intervals where a player has booked a court. All courts on a given daily schedule are available to us in the same time interval. So, it's not like S1 can be used from 10 to 14 and then D3 from 11 to 15. It's the same time interval for all courts on a specific date.

Our players need to be registered with their VIA ID, and then they can book a court. A player can have a single active booking at a time, and a booking must be between 1 and 3 hours. And you can't make a booking on a court 30 minutes after another, leaving a 30 minute's gap that no-one can use. We will need to think about how to optimize this.

When making a booking, the player doing the booking must also specify which other players are going to play, so these players must also be registered. It's just so we can track stuff, in case of some bad behaviour or whatever might happen. We might need to quarantine players.

We foresee that sometimes a player might make a booking, but not show up. In fitness centres, this would result in a fine, but we don't deal with money in this project, currently. So, instead, we will try an approach where we managers can quarantine a player, so that they cannot make another booking for a couple of days. For example, we might quarantine player 123456 from the 8<sup>th</sup> and 3 days, disallowing to make any bookings on the 8<sup>th</sup>, 9<sup>th</sup>, and 10<sup>th</sup>.

We should probably have the option of increasing the quarantine-duration for a given player each time they don't show up, so, for example, the first time they might get 2 days, and then next time it might be 4 days, etc. This means that we need to view a potential history of quarantines. Eventually, we might need to permanently block a player, so that they can no longer book or be included in bookings. And then we need the option to unblock a player as well.

A booking can be cancelled up to 3 hours before its start. After that it would result in a quarantine instead.

And because we probably don't get that many available courts to use per day, we might expect a reservation system. We currently just imagine that a player can add themselves to a queue for a daily schedule, and if someone cancels their reservation, the queued players are notified, maybe by email, and then whoever is fastest can create a booking in the newly available slot.

We are also thinking about upgrading players to VIP-players. We would just have them mobile pay us, and then we would add, say, 30 days of VIP status. After 30 days they are no longer VIP. If they pay again, another 30 days is added. We would then make part of or a whole daily schedule available to only VIP-players.

That's all I can think of for now, maybe more will show up as we start to hash out the details.

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