Our group took the stance of revenue management consultants looking at what Padium is currently doing and potential strategies it could implement. Looking at Padium's current pricing strategy they have a basic flat rate of £80 per hour booking fee for one court. They also have a yearly membership offering which only gives access to early booking and other small benefits but has no impact on the court booking fee. Considering that Padium has a limited number of courts, their current pricing strategy is a first come first serve flat rate with limited capacity. The problem with this basic strategy is that demand for courts is concentrated at peak times, with the most obvious being after work. Additionally, their membership structure does not entice the majority of Padium's customers to sign up as members because the benefits are minimal. To address these shortcomings, we modeled and tested several of the techniques taught in this course. The first obvious fix was implementing a peak and non-peak pricing strategy. The strategies we tested using dummy data showed that peak nonpeak pricing would increase revenue. This is to be expected as most of the demand is centered around peak times and customers are willing to pay a lot more to play during peak times. Thus, in the current basic pricing model, Padium is missing out on a significant amount of revenue that it can gain by leveraging higher willingness to pay during peak times. Additionally, we tested memberships with discounts and maximizing revenue by analyzing customer's willingness to pay during peak times, both of which are very applicable for this problem. The main takeaway I have is that there are many methods and algorithms one can use to create a pricing structure for a product but just because a strategy is more complex and increases revenue doesn't necessarily make it the best choice. For example, in our study we could have varied prices by demand in a way that maximizes revenue at every opportunity, but consumers would be unhappy with constantly fluctuating prices and this strategy would hurt the brand image in the long term in exchange for short term gain.

An interesting direction that our project could be extended into is looking at creating package deals to sell to consumers that would influence court bookings. Creating bundles for multiple bookings, coaching sessions or equipment rentals could help add a great deal of revenue to the business. To work on this extension, I would need data on pricing for additional services like coaching sessions etc. and the historical demand for court bookings and all extra services. With

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SMM641 REVENUE MANAGEMENT AND PRICING Individual Submission December 15, 2023 this data, I would dynamic programming techniques to obtain real time rent or don't rent

decisions. Using an hour-long time horizon, customers can apply to book a court and at the end of the hour, a decision on the most profitable set of bookings will be created.

I found assortment optimization and the concept of overbooking as the most interesting topics in this module. The applications of Markov chains would be the topic I would want to learn more about.