**Android Project Proposal**

Title: TUS parking spot reservation app

**Description**

Finding a parking spot might be tricky and time-consuming. Therefore a parking management app might help the TUS to manage parking spots more efficiently. This app is designed specifically for all staff and students from TUS Midwest who requires a parking spot when they are on campus. The idea of this Android mobile application is to allow staff and students to pay for parking in advance and reserve that parking spot for a certain period of hours. Each person should have a limited amount of hours to park per week to avoid people overbooking parking spaces. There should be a figure which lights up green if the parking spot is available for certain hours and turned red if it has been booked by someone else. For example, I have classes from 2 pm to 4 pm today, and I wish to book parking for 2 hours, I would first specify the time, which is 2 pm and check for availability, which are the parking spots that are green. I would then pay the money in advance, and that parking slot should belong to me for that two hours slot. The user should have access to the map of the location that provides the parking service.

The mobile application should push notifications whenever the parking time is almost finished. The notification should notify the user if the parking slot is booked out for the next hour so that the user can extend their booking for another hour if they wish to. The mobile application should also send a notification whenever they are close to the maximum booking hour.

Optional additional features:

* The mobile application can provide a subscription service that allows users to purchase a weekly ticket which provides 20 hours at a lower price compared to paying on an hourly basis.
* The mobile application might have a personal detail page with a QR code to allow the guards to identify user identity
* The mobile application might have a digital wallet to store credit that users can spend on paying their parking fees.