

*Topic: App for checking real time parking status*

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*Problem Background:*

*Given volume of students at rush hour at college most students spend lots of time going through campus parking to find an open spot. This type of traffic volume is a normal occurrence that we see every class day and one that can't be avoided, nonetheless it still is a real problem to students and visitors who are trying to get time sensitive issues resolved. Not only that but in some cases open spots are not as good as they seem because they are prone to be flooded if there is rain and, in most cases, students can't tell when this is happening because their classrooms have their windows closed.*

*Countermeasures:*

- Have a camera-based system which can view the entirety of a lot and that can pass the visual data.*
- Provide a map in which users can see the actual state of the parking where they are planning to park.*
- Make the app accessible to everyone and quick to use.*
- Issue a warning when sustained raining is detected.*
- All parking of the campus parking lots needs to have a map so that users can see all their options and which place is more convenient for them.*

*Target:*

- Students will have an easier time finding a spot at campus.*
- No more late attendances because of wasted time looking for parking.*
- No more unexpected damage to cars from an unexpected flood.*

*Check/Evaluate:*

- Check for decrease in damage reports of cars in parking caused by floods*
- Make sure cameras can be placed in places with no visual obstructions.*
- Cameras must be placed safe from weather and strong winds while having a clear view.*

*Causes:*

- There is a lot of traffic flow in college.*
- A lot of students and faculty need to bring their cars because they don't live close enough to get to college walking.*
- People don't have a full view of any of the parking lots before being there.*

*Act/Standardize:*

- Regular maintenance and monitoring of cameras.*
- In app questionnaire of effectiveness of app reducing time for finding a parking spot.*
- Allow user feedback on app functionality.*