Software Engineering-Revised Features List

Group Name: Eimhin O'Neill, Fionn O'Dochartaigh, Leon Ogunfeyimi, Oghennovo Itaire

Revised Features of app

Real-Time Parking Availability: The SETU Parking App will use sensor technology to provide real-time updates on parking space availability across the campus. Users will see a live map with color-coded markers, green for available spaces and red for full areas, helping students like Aoife find a spot quickly without driving around aimlessly. This feature reduces congestion, saves time, and minimizes stress for everyone trying to park before lectures, meetings, or gym sessions.

Favorite Parking Locations: Users will be able to save their preferred parking spots within the app for quick and easy access. Students and staff who often park near certain buildings, like Aoife near her lecture halls or Liam near the education building, can mark these zones as favorites. The app will highlight these areas first, making navigation faster and parking more predictable, especially during busy times.

Pre-Booking and Reservation: For staff and lecturers like Dr. O'Sullivan, the app will offer a limited pre-booking feature, allowing users to reserve a spot ahead of time. Users can book a parking space close to their department the night before and receive confirmation in the app. Real-time updates will alert them if any issues arise with their reserved spot, giving them enough time to make alternative plans without disrupting their schedule.

Multilingual Support: Understanding that SETU has a diverse student body, the app will include multilingual support. International students like Sofia will be able to switch the app's language to Spanish or other supported languages, making parking instructions, maps, and zone details clear and easy to understand. This feature ensures that language barriers won't prevent users from finding appropriate parking efficiently.

Time-Based Parking Notifications: The app will help users stay compliant with time-based parking restrictions through timely reminders. For evening users like Shauna, who often parks near the SETU Arena, the app will send notifications 15 minutes before a parking limit expires. This allows users to extend their session if needed or move their car without fear of fines or clamping, providing peace of mind during workouts, classes, or late meetings.

Peak Hour Alerts and Parking History: To help users plan their journeys better, the app will feature peak hour alerts and a personalized parking history. Users like Liam, who juggle tight schedules, will receive notifications about expected busy periods in campus parking lots. Additionally, the app will remember frequently used parking areas and suggest them first, streamlining the process of finding a spot when time is short and minimizing delays.